



Grand Canyon University
Academic Catalog
2019-2020

Spring 2020

Academic Catalog Version Record

The following is a record of the major changes made to the Grand Canyon University Academic Catalog. This is not a comprehensive itemization of all of the changes made in this revision cycle, but rather an overview of the more significant updates incorporated into the current version of the catalog.

Version	Updated	Changes Made
1	12/23/19	Other Changes <ul style="list-style-type: none"> Initial Update to Spring 2020
2	1/3/20	Programs/Minors Added <ul style="list-style-type: none"> Graduate Certificate of Completion in Project Management Master of Public Administration with an Emphasis in Nonprofit Management Master of Science in Computer Science Master of Science in Data Science Master of Science in Information Assurance & Cybersecurity
3	1/10/20	Programs/Minors Added <ul style="list-style-type: none"> Bachelor of Science in Behavioral Health Science with an Emphasis in Infancy and Early Childhood Studies Bachelor of Science in Behavioral Health Science with an Emphasis in Substance Use Disorders
4	1/17/20	Programs/Minors Added <ul style="list-style-type: none"> Bachelor of Science in Biological Sciences Bachelor of Science in Software Engineering Programs/Minors Retired <ul style="list-style-type: none"> Bachelor of Arts in Dance Education (IP/TL) Bachelor of Arts in Theatre Education (IP/TL) Master of Education in Secondary Education (IP/TL) Master of Education in Secondary Education (IP/Non-TL)
5	2/7/20	Programs/Minors Added <ul style="list-style-type: none"> Master of Science in Mental Health and Wellness with an Emphasis in Integrated Health Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Family Dynamics Studies Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Integrated Health Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Grief and Bereavement Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Christian Ministry
6	2/14/20	Programs/Minors Added <ul style="list-style-type: none"> Bachelor of Arts in Christian Ministry Master of Arts in Higher Education Student Affairs Programs/Minors Revised <ul style="list-style-type: none"> Bachelor of Arts in Christian Studies with an Emphasis in Worship Leadership
7	3/6/20	Programs/Minors Added <ul style="list-style-type: none"> Bachelor of Science in Health Sciences
8	3/13/20	Programs/Minors Added <ul style="list-style-type: none"> Graduate Certificate of Completion in Communication Graduate Certificate of Completion in English Graduate Certificate of Completion in History

Version	Updated	Changes Made
		<ul style="list-style-type: none"> Graduate Certificate of Completion in Mathematics Graduate Certificate of Completion in Sociology Minor in History
9	3/20/20	Programs/Minors Added <ul style="list-style-type: none"> Master of Science in Nursing with an Emphasis in Health Care Quality & Patient Safety Graduate Certificate of Completion in Health Care Quality and Patient Safety
10	4/3/20	Programs/Minors Added <ul style="list-style-type: none"> Master of Education in Special Education: Moderate to Severe (Leads to Initial Teacher Licensure) Master of Education in Special Education: Moderate to Severe (Does Not Lead to Initial Licensure)

Right to Change Requirements:

The University reserves the right to make changes of any nature to the calendar, admission requirements, degree requirements, fees, regulations, course offerings, programs, or academic schedules whenever they are deemed necessary or desirable, including changes or modification of course content, class scheduling, offering patterns, canceling of scheduled classes, or other academic activities.

The Grand Canyon University Academic Catalog does not establish a contractual relationship; rather, it sets forth academic and other requirements that students must meet to be granted a degree and, in some circumstances, to continue to be enrolled at the institution. While advisors and other Grand Canyon University personnel are available to guide students with respect to the requirements, students ultimately bear the responsibility of following the requirements.

Notice of Non-Discrimination

Grand Canyon University does not discriminate on the basis of race, color, national or ethnic origin, sex, disability, age, sexual orientation, gender identity or any legally protected status. Title IX regulations require non-discrimination on the basis of sex or gender, which includes unlawful discrimination based on pregnancy and/or disability discrimination based upon complications related to pregnancy. As a religious institution, Grand Canyon University expressly reserves its rights, its understandings of, and its commitments to Christian principles, and reserves the legal right to hire and employ individuals who support the values of the University.

Inquiries concerning the application of Title IX discrimination or the application of Title IX harassment policies may be submitted to the Title IX coordinator and/or to the Office of Civil Rights for the United States Department of Education:

Title IX Coordinator
Shanna Milonas
Assistant Vice President, Academic Affairs
3300 W Camelback Rd
Phoenix, AZ 85017
(602) 639-6389
TitleIX@gcu.edu

U.S. Department of Education
Office for Civil Rights
Lyndon Baines Johnson, Department of Education Building
400 Maryland Avenue, SW
Washington, DC 20202-1100
Telephone: 800-421-3481
FAX: 202-453-6012; TDD: 800-877-8339
OCR@ed.gov

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Contact Information

General Contact Information

Web Site

<http://www.gcu.edu/>

Main Switchboard

Phone: 1-602-639-7500
Toll-free: 1-800-800-9776

Main Campus Mailing Address

Grand Canyon University
PO Box 11097
Phoenix, AZ 85061-1097

Main Campus Street Address

Grand Canyon University – Main Campus
3300 West Camelback Road
Phoenix, AZ 85017-3030

Student Contacts

Admissions Representatives

Responsibility: Assists students with their initial enrollment into a program of study.

Phone: 1-800-800-9776

Campus Operations

Responsibility: Provide parking passes for campus students, faculty and staff along with issue campus ID cards

Phone: 602-639-7739

Canyon Health and Wellness Clinic

Responsibility: Assists campus students with health needs.

Phone: 602-639-6215

Fax: 602-639-7830

Website: <http://www.gcu.edu/Campus-Resources/Health-and-Wellness-Center.php>

Career Services

Responsibility: GCU's Career Services team provides students and alumni with the resources, professional knowledge and support they need to successfully transition from academics into purposeful and satisfying employment.

Phone: 602-639-6606

E-mail: careerservices@gcu.edu

Center for Learning and Advancement

Responsibility: Provides learning resources for students through free face-to-face and online tutoring in writing, math (algebra, trigonometry, calculus), accounting, finance, statistics, APA, as well as workshops in test-taking techniques, reading strategies, time management, study skills, and note-taking techniques. The Center also oversees the First Year Experience (FYE) program, Study Abroad, Peer Mentoring, Lifelong Learning Assessment, and the Honors College.

Phone: 1-602-639-8901

Email: centerforlearning@gcu.edu

Additional Locations

GCU Boswell
10484 W. Thunderbird, Suite 102
Sun City, Arizona 85351

Kyrene School District Office
8700 S. Kyrene Rd.
Tempe, Arizona 85284

Mesa Community College
1833 W. Southern Avenue
Mesa, Arizona 85202

Pima-Salt River High School
4827 N Country Club Dr
Scottsdale, Arizona 85256

Website: <http://www.gcu.edu/Learning-Resources/Center-for-Learning-and-Advancement.php>

GCU Bookstore

Responsibility: Carries materials required in GCU courses along with University-branded apparel and gifts.

Phone: 1-800-866-8917

GCU Library

Responsibility: Provides learning resources through physical and online libraries.

Phone: 602-639-6641 or 1-800-800-9776 ext. 639-6641

Website: <http://library.gcu.edu>

Ask A Librarian: <http://library.gcu.edu/AskALibrarian>

Webinars/Workshops: <http://www.gcu.edu/Student-Affairs/Library/Webinar-Sign-Up.php>

GCU Today

Responsibility: Provides the news and events source for Grand Canyon University students, updated daily.

Phone: 602-639-8011

Email: doug.carroll@gcu.edu

Website: <http://news.gcu.edu/>
<http://www.gcu.edu/News.php>

International Students Office

Responsibility: Assists university students and staff in support of F-1 students during their stay in the United States

Phone: 602-639-8105

Fax: 602-343-3771

E-mail: ISO@gcu.edu

Mail and Copy Center

Responsibility: Provide many services to the traditional campus students and staff, which includes mailing out letter and packages along with photocopying services

Phone: 602-639-7905

Website: <http://www.gcu.edu/Campus-Resources/Mail-and-Copy-Center.php>

Office of Academic Records

Responsibility: Tracks student progress to degree completion, evaluates transcripts, and admits students to the University.

Phone: 1-800-800-9776

E-mail: academicrecords@gcu.edu

Office of Residence Life

Responsibility: Assists students with campus housing

Phone: 602-639-6244

Email: residencelife@gcu.edu

Website: <http://www.gcu.edu/Housing/Residence-Life-Information.php>

Office of Spiritual Life

Responsibility: Provides spiritual needs of the campus, coordinates Chapel programming and outreach ministry

Phone: 602-639-6750

Email: spirituallife@gcu.edu

Website: <http://www.gcu.edu/Spiritual-Life.php>

Office of Student Engagement

Responsibility: Assists students with campus clubs, intramurals, Associated Students of GCU, and campus programming.

Phone: 602-639-7250

Email: Student.Engagement@gcu.edu

Website: <http://www.gcu.edu/Events-and-Activities.php>

Public Safety

Responsibility: Assists students, faculty and staff with issues relating to campus and public safety.

Phone: 602-639-8100

Website: <http://www.gcu.edu/Campus-Resources/Public-Safety.php>

Student Disability Services

Responsibility: Assists students with obtaining reasonable accommodations, based on student self-disclosure of disability.

Phone: 602-639-6342 or 1-800-800-9776 ext. 639-6342

Email: disabilityoffice@gcu.edu

Student Services Counselors

Responsibility: Assists students with planning financial resources needed to fund their education along with planning and maintaining their program of study.

Phone: 1-800-800-9776

Technical Support

Responsibility: Assists students with technical issues regarding the University systems.

Phone: 1-877-428-8447

Email: techsupport@gcu.edu

Website: <http://www.gcu.edu/Learning-Resources/Tutorial-Videos/Technical-Support.php>

Accreditation and Authorizations

Accreditation

Grand Canyon University holds many accreditations, some college-specific and others program-specific. Accreditation is desirable as it speaks to the quality of the college or university, acknowledged by peer institutions. In choosing a university, parents and students should ensure their university of choice is regionally accredited.

Regional accreditation in higher education originated almost a century ago as an American process conferred by a nongovernmental agency. It provides quality assurance and ensures institutional program improvement. The agency's expert and trained peers have visited and reviewed Grand Canyon University. During the visit, Grand Canyon University is reviewed from a variety of facets, including: educational activities, administration, financial stability, admissions and student personnel services, resources, student academic achievement, organizational effectiveness, and relationships with outside constituencies.

Six regional agencies provide institutional accreditation on a geographical basis — Middle States, New England, North Central, Northwest, Southern, and Western. While independent of one another, the six regional associations cooperate extensively and recognize one another's accreditation.

The Higher Learning Commission and its predecessor have accredited Grand Canyon University continually since 1968, obtaining its most recent ten-year reaccreditation in 2017. The Arizona State Board for Private Postsecondary Education licenses GCU in Arizona.

Higher Learning Commission

The Higher Learning Commission accredits Grand Canyon University.

The Higher Learning Commission
230 South LaSalle Street, Suite 7-500
Chicago, Illinois 60604-1411
Phone: 312-263-0456
Toll-free: 800-621-7440
<http://www.ncahlc.org/>

Arizona State Private Post-Secondary Education

Grand Canyon University is licensed in Arizona by the Arizona State Board for Private Postsecondary Education.

Arizona State Board for Private Postsecondary Education
1740 W. Adams St., Suite 3008
Phoenix, AZ 85007
Phone: 602-542-5709
<http://azppse.state.az.us>

Veteran's Administration

Grand Canyon University is approved for the education and training of veterans under the provisions of Title 10 and 38, United States Code. We accept Chapter 30, 31, 33, 35, and 1606 recipients. Veterans are approved for benefits for numerous programs. For more information regarding using your VA benefits at Grand Canyon University, email VaBenefits@gcu.eduail.

Student Exchange Visitor Program (SEVP)

Grand Canyon University has applied for and received certification to enroll F nonimmigrant students per the Student Exchange Visitor Program (SEVP) under 8 CFR 214.3. The International Students Office has access to SEVIS and may issue Forms I-20, Certificate of Eligibility for Student Status, to prospective students. For more information see the International Students Office [website](#).

Other Accreditations/Approvals

In addition, the University has obtained the following specialized accreditations and approvals for our core program offerings: Association of Collegiate Business Schools and Programs, Arizona State Board of Education, Commission on Collegiate Nursing Education, and Commission on Accreditation of Athletic Training Education.

Colangelo College of Business

The Accreditation Council for Business Schools and Programs (ACBSP), 7007 College Boulevard, Suite 420, Overland Park, KS 66211, 913-339-9356, accredits the following programs of the Colangelo College of Business: Bachelor of Science in Accounting, Bachelor of Science in Applied Management, Bachelor of Science in Business Administration, Bachelor of Science in Business Administration with an Emphasis in Business Intelligence, Bachelor of Science in Business Management, Bachelor of Science in Entrepreneurial Studies, Bachelor of Science in Finance and Economics, Bachelor of Science in Marketing, Bachelor of Science in Sports Management, Master of Science in Accounting, Master of Business Administration, Master of Business Administration with an Emphasis in Accounting, Master of Business Administration with an Emphasis in Finance, Master of Business Administration with an Emphasis in Health Systems Management, Master of Business Administration with an Emphasis in Leadership, Master of Business Administration with an Emphasis in Marketing, Master of Business Administration with an Emphasis in Project Management, Master of Business Administration with an Emphasis in Strategic Human

Resource Management, and Doctor of Business Administration with an Emphasis in Management. The ACBSP requires each school to submit a periodic Quality Assurance Report that summarizes recent activity regarding compliance with ACBSP standards. [View our most recent ACBSP Quality Assurance Report](#). View the results of the [Undergraduate Business Field Test](#).

Grand Canyon University's Colangelo College of Business is approved by the Arizona State Board of Education to offer institutional recommendations (credentials) for the certification of Bachelor of Science in Business for Secondary Education.

College of Education

Grand Canyon University's College of Education is approved by the Arizona State Board of Education to offer institutional recommendations (credentials) for the certification of early childhood, elementary, secondary and special education teachers, as well as administrators.

College of Fine Arts and Production

Grand Canyon University's College of Fine Arts and Production is approved by the Arizona State Board of Education to offer institutional recommendations (credentials) for the certification of Bachelor of Arts in Dance Education, Bachelor of Arts in Music Education and Bachelor of Arts in Theatre Education.

College of Nursing and Health Care Professions

The Commission on Collegiate Nursing Education (CCNE), recognized by ED and CHEA, assesses the quality and integrity of nursing programs. Grand Canyon University's Bachelor of Science in Nursing (Pre-Licensure), Bachelor of Science in Nursing (RN to BSN), Master of Science in Nursing with an Emphasis in Health Informatics, Master of Science in Nursing with an Emphasis in Nursing Education, Master of Science in Nursing with an Emphasis in Public Health Nursing, Master of Science of Nursing with an Emphasis in Nursing Leadership in Health Care Systems, Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult Gerontology, Master of Science in Nursing: Family Nurse Practitioner, Post Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult Gerontology, Post Master of Science in Nursing: Family Nurse Practitioner, Doctor of Nursing Practice, and Doctor of Nursing Practice with an Emphasis in Educational Leadership are accredited by the Commission on Collegiate Nursing Education (<http://www.ccneaccreditation.org>).

Recognized by CHEA, the Commission on Accreditation of Athletic Training Education (CAATE) assess and recognizes excellence in athletic training. CAATE accredits GCU's Bachelor of Science in Athletic Training program. <https://caate.net/>

College of Humanities and Social Sciences

Grand Canyon University's College of Humanities and Social Sciences is approved by the Arizona State Board of Education to offer institutional recommendations (credentials) for the certification of Bachelor of Arts in History for Secondary Education, Bachelor of Arts in English for Secondary Education and Bachelor of Science in Math for Secondary Education.

The Master of Science in Addiction Counseling program has been approved for accreditation through the National Addiction Studies Accreditation Commission (NASAC), 1001 N. Fairfax St. Suite 201, Alexandria, VA 22314. NASAC accreditation is a new accreditation body as a result from a combined effort of The International Coalition for Addiction Studies Education (INCASE) and the Association for Addiction Professionals (NAADAC) to create a single higher education addiction studies accreditation.

Grand Canyon University's Master of Science in Professional Counseling and Master of Science in Christian Counseling are approved by the Arizona Board of Behavioral Health Examiners as being consistent with the curriculum requirements for LAC or LPC licensure.

Grand Canyon University's Bachelor of Science in Counseling with an Emphasis in Addiction, Chemical Dependency and Substance Abuse is approved by the Arizona Board of Behavioral Health Examiners as being consistent with the curriculum requirements for LSAT licensure.

Arizona Board of Behavioral Health Examiners
1740 West Adams St
Phoenix, AZ 85007
<http://www.azbbhe.us/>

Grand Canyon University has been approved as an Approved School/Program by the California Consortium of Addiction Programs and Professionals (CCAPP) for the following online programs: Master of Science in Addiction Counseling, Master of Science in Christian Counseling of Substance Use and Addictive Disorders and Bachelor of Science in Counseling with an Emphasis in Chemical Dependency and Substance Abuse. These programs are approved until September 30, 2020.

California Consortium of Addiction Programs and Professionals
2400 Marconi Avenue, Suite C
Sacramento, CA 95821
PO Box 214127
<https://www.ccapp.us/>

Grand Canyon University has been approved as an Education Provider by the Georgia Addiction Counselors Association (GACA) for the Master of Science in Addiction Counseling and Bachelor of Science in Counseling with an Emphasis in Chemical Dependency and Substance Abuse programs. These programs are approved until December 31, 2019.

Georgia Addiction Counselors Association
4015 South Cobb Drive, Suite 160
Smyrna, GA 30080
<http://gaca.org/>

Grand Canyon University has been approved as a pre-certification education program for substance abuse counselors by the Wisconsin Department of Safety and Professional Services for the following online programs: Master of Science in Addiction Counseling, Master of Science in Christian Counseling of Substance Use and Addictive Disorders and Bachelor of Science in Counseling with an Emphasis in Addiction, Chemical Dependency and Substance Abuse. These programs are approved through August 2021.

Wisconsin Department of Safety and Professional Services
1400 East Washington Avenue, Room 112
Madison, WI 53703
<https://dsps.wi.gov/pages/home.aspx>

Council for Accreditation of Counseling and Related Educational Programs (CACREP)

The College of Humanities and Social Sciences' (CHSS) will seek program-specific accreditation for the Master of Science in Clinical Mental Health Counseling (CMHC), within 6 months of the first graduating class. Although program-specific accreditation is a voluntary process, Grand Canyon University (GCU) remains committed to closely follow the recognized standards set forth by local and national accreditation associations to safeguard a quality education in the counseling field of study.

College of Science, Engineering and Technology

Grand Canyon University's College of Science, Engineering and Technology is approved by the Arizona State Board of Education to offer institutional recommendations (credentials) for the certification of Bachelor of Science in Biology for Secondary Education and Bachelor of Science in Chemistry for Secondary Education.

The College of Science, Engineering and Technology's may obtain program-specific accreditation for engineering and technology programs for which the College deems accreditation important for future student employment. Accreditation applications can only be submitted within 6 months of the first graduating class. Program-specific accreditation is voluntary and will provide degrees earned from the CSET with added value for GCU students. Grand Canyon University remains committed to aligning the engineering and technology programs with accreditation standards and to exceed the high standards set by accrediting bodies to ensure STEM students receive a quality education.

Grand Canyon Theological Seminary

Grand Canyon Theological Seminary, the embedded seminary of Grand Canyon University, is included within the university's accreditation by the Higher Learning Commission. The seminary is also accredited by the Commission on Accrediting of the Association of Theological Schools.

The Commission on Accrediting of the Association of Theological Schools has approved the following degree programs: Master of Divinity, Master of Arts in Christian Leadership, Master of Arts in Christian Ministry, Master of Arts in Youth and Family Ministry and the Master of Arts in Urban Ministry:

The Commission on Accrediting of the ATS
10 Summit Park Drive
Pittsburgh, PA 15275
Phone: 412.788.6505
Fax: 412.788.6510
www.ats.edu

Intercollegiate Athletics

Intercollegiate athletics function under the guidelines of the National Collegiate Athletic Association (NCAA) Division I, 700 W. Washington Street, P.O. Box 6222, Indianapolis, IN 46202, regarding eligibility to participate in intercollegiate sports. In the 2013-14 season, Grand Canyon University began the process of reclassifying from Division II to Division I as a member of the Western Athletic Conference.

State Authorizations

State Authorization Reciprocity Agreements (SARA) Participant

Grand Canyon University is an institutional participant in the State Authorization Reciprocity Agreement (SARA) initiative. SARA is an agreement among member states, districts and territories that establishes comparable national standards for interstate offering of postsecondary distance education courses and programs. It is intended to make it easier for students to take online courses offered by postsecondary institutions based in another state. SARA is overseen by a National Council and administered by four regional education compacts. For more information and a list of member states, please visit <http://nc-sara.org/>.

California Resident Students Rights and Responsibilities Related to the Student Tuition Recovery Fund (STRF)

The State of California established the Student Tuition Recovery Fund (STRF) to relieve or mitigate economic loss suffered by a student in an educational program at a qualifying institution, who is or was a California resident while enrolled, or was enrolled in a residency program, if the student enrolled in the institution, prepaid tuition, and suffered an economic loss. Unless relieved of the obligation to do so, you must pay the state-imposed assessment for the STRF, or it must be paid on your behalf, if you are a student in an educational program, who is a California resident, or are enrolled in a residency program, and prepay all or part of your tuition.

You are not eligible for protection from the STRF and you are not required to pay the STRF assessment, if you are not a California resident, or are not enrolled in a residency program.

It is important that you keep copies of your enrollment agreement, financial aid documents, receipts, or any other information that documents the amount paid to the school. Questions regarding the STRF may be directed to the Bureau for Private Postsecondary Education, 2535 Capitol Oaks Drive, Suite 400, Sacramento, CA 95833, (916) 431-6959 or (888) 370-7589.

To be eligible for STRF, you must be a California resident or are enrolled in a residency program, prepaid tuition, paid or deemed to have paid the STRF assessment, and suffered an economic loss as a result of any of the following:

1. The institution, a location of the institution, or an educational program offered by the institution was closed or discontinued, and you did not choose to participate in a teach-out plan approved by the Bureau or did not complete a chosen teach-out plan approved by the Bureau.
2. You were enrolled at an institution or a location of the institution within the 120 day period before the closure of the institution or location of the institution, or were enrolled in an educational program within the 120 day period before the program was discontinued.
3. You were enrolled at an institution or a location of the institution more than 120 days before the closure of the institution or location of the institution, in an educational program offered by the institution as to which the Bureau determined there was a significant decline in the quality or value of the program more than 120 days before closure.
4. The institution has been ordered to pay a refund by the Bureau but has failed to do so.
5. The institution has failed to pay or reimburse loan proceeds under a federal student loan program as required by law, or has failed to pay or reimburse proceeds received by the institution in excess of tuition and other costs.
6. You have been awarded restitution, a refund, or other monetary award by an arbitrator or court, based on a violation of this chapter by an institution or representative of an institution, but have been unable to collect the award from the institution.
7. You sought legal counsel that resulted in the cancellation of one or more of your student loans and have an invoice for services rendered and evidence of the cancellation of the student loan or loans.

To qualify for STRF reimbursement, the application must be received within four (4) years from the date of the action or event that made the student eligible for recovery from STRF.

A student whose loan is revived by a loan holder or debt collector after a period of noncollection may, at any time, file a written application for recovery from STRF for the debt that would have otherwise been eligible for recovery. If it has been more than four (4) years since the action or event that made the student eligible, the student must have filed a written application for recovery within the original four (4) year period, unless the period has been extended by another act of law.

However, no claim can be paid to any student without a social security number or a taxpayer identification number.

Iowa

Students seeking an Iowa license are advised that successful completion of Grand Canyon University's programs of educator preparation do not qualify you for initial educator licensure by the Iowa Board of Educational Examiners. Candidates seeking licensure in the state of Iowa must first be licensed/certified as educators in Arizona. Grand Canyon University will assist you in understanding the licensure requirements of the Arizona Department of Education prior to completion of your educational preparation program. Arizona Department of Education can be contacted at 800-352-4558 or <http://www.azed.gov/>. Candidates seeking subsequent licensure from the Iowa Board of Educational Examiners must contact that Board (515-281-5849; <http://www.boee.iowa.gov/>) for licensure requirements in Iowa.

Nevada

Grand Canyon University holds a License to Operate Private Postsecondary Experiential Courses granted by the Nevada Commission on Postsecondary Education.

Nevada Commission on Postsecondary Education
8778 South Maryland Parkway Suite 115
Las Vegas, Nevada 89123
Phone: (702) 486-7330
<http://cpe.nv.gov/>

Pennsylvania

Teacher education programs have not been reviewed or approved by Pennsylvania. Candidates will have to apply for certification and meet requirements for certification as out-of-state candidates.

Residents of Pennsylvania should direct questions, complaints, or concerns to:

Pennsylvania Department of Education

<http://www.education.pa.gov/Postsecondary-Adult/College%20and%20Career%20Education/Pages/Students-Complaints.aspx#tab-1>

Pennsylvania Department of Education - Postsecondary and Adult Education

333 Market Street, 12th Fl | Harrisburg, PA 17126-0333

431 Charmany Drive, Suite 102 Madison, WI 53719

Utah

Utah Division of Occupational and Professional Licensing

The following programs in the College of Nursing and Health Care Professions have satisfied the requirements for clinical placement of nursing students by programs located outside of the state of Utah: Bachelor of Science in Nursing (RN to BSN), Master of Science in Nursing with an Emphasis in Public Health, Master of Science in Nursing with an Emphasis Health Informatics, Master of Science in

Nursing with an Emphasis Leadership in Health Care Systems, Master of Science in Nursing with an Emphasis in Nursing Education, Post-Master of Science in Nursing: Nursing Education Certificate, Doctor of Nursing Practice, and the Doctor of Nursing Practice with an Emphasis in Educational Leadership.

State of Utah Department of Commerce
Division of Occupational and Professional Licensing
60 East 300 South • P.O. Box 146741 , Salt Lake City, UT 84114-6741

Washington

Washington State Nursing Care Quality Assurance Commission

Grand Canyon University is approved by the Washington State Nursing Care Quality Assurance Commission to conduct practice experiences in the state of Washington for RN-BSN, MSN/Health Informatics, MSN/Nurse Educator, MSN/Nurse Leadership in Health Care Systems, MSN/Public Health and Post graduate certificate in Nursing Education. For more information go to the following link:

<http://www.doh.wa.gov/LicensesPermitsandCertificates/NursingCommission/NursingPrograms.aspx>

Wisconsin

Wisconsin Department of Safety and Professional Services

Grand Canyon University has been approved as a pre-certification education program for substance abuse counselors by the Wisconsin Department of Safety and Professional Services for the following online programs: Master of Science in Addiction Counseling, Master of Science in Christian Counseling of Substance Use and Addictive Disorders and Bachelor of Science in Counseling with an Emphasis in Addiction, Chemical Dependency and Substance Abuse. These programs are approved through August 2021.

Wisconsin Department of Safety and Professional Services
1400 East Washington Avenue
Room 112
Madison, WI 53703
<https://dsps.wi.gov/pages/home.aspx>

Location and Professional Licensure

GCU is required to determine the location of distance education students, evidenced by a student's address. If you are considering relocating, or have relocated to another state, territory, or outside of the United States during your program, whether relocation is permanent or temporary, you must contact your Student Services Counselor immediately to determine whether your Program of Study is available in the new location and whether it will lead to professional licensure in the new location. Students must do this before incurring any/additional financial obligations. The new location may have additional requirements that would need to be completed in order to be eligible for certification or licensure. Students are expected to conduct all field placements, practicum, or student teaching within the state in which they are located at the time of enrollment. Students who seek to conduct field placements, practicum, or student teaching in a state other than the state in which they are located, or who intend to seek licensure in a different state, must disclose this to their Student Services Counselor to determine whether field placement or licensure is possible in the desired location. In addition, GCU encourages students to contact their state licensure board to ensure the program will meet their needs.

Professional Licensure Requirements Update Notification

Grand Canyon University periodically reviews the licensure requirements of its programs in all US states and territories. Students will be notified of relevant changes if Grand Canyon University finds a change in the requirements which would impact a student's ability to obtain licensure in the state in which the student is located.

Professional Licensure Outside of the United States

GCU programs are not designed nor intended to lead to licensure or certification outside of the United States. Student teaching, practicum, internship, or field experience is not permitted outside of the United States.

International Military Field Placements

Military students who are located outside of the United States who are enrolled in education programs that lead to professional licensure and/or contain field placement must complete all placements on a base or in a Department of Defense approved location. Students are advised to contact a Field Experience Counselor to determine whether field experience can be completed.

About Grand Canyon University

Vision

Grand Canyon University is a premier Christian University educating people to lead and serve.

Mission Statement

Grand Canyon University prepares learners to become global citizens, critical thinkers, effective communicators, and responsible leaders by providing an academically challenging, values-based curriculum from the context of our Christian heritage.

Mission-Based Student Learning Competencies

Tied to the mission statement of GCU are mission-based competencies that faculty and administration believe are imperative for students to learn. GCU strives to ensure students who progress through their program at different times exit the program with the same foundational knowledge and demonstrable skills, and that graduates bring commensurate knowledge and practical skills to the workforce. Consistent competencies and objectives, regardless of the modality, are the foundation of every program design. All GCU courses provide foundational knowledge and then apply or synthesize the learning. Thus, all graduates of the same program will have developed comparable skill sets.

Mission-based Bachelor's Competencies

Domains	Competencies
Leadership Graduates of Grand Canyon University's bachelor's program will be able to demonstrate an understanding of the reality of the world, examine the consequences of choice, and provide unselfishly to help others meet their highest potential.	<ul style="list-style-type: none">• Graduates of the bachelor's program will be able to apply leadership models and demonstrate the capacity for leadership.• Graduates of the bachelor's program will be able to develop a clear vision that informs, inspires, and motivates others to achieve goals.• Graduates of the bachelor's program will be able to determine various leadership styles and rationale for differences.
Communication Graduates of Grand Canyon University's bachelor's program will be able to develop and apply intrapersonal and professional communication behaviors essential to servant leadership and rooted in Christian ethical belief.	<ul style="list-style-type: none">• Graduates of the bachelor's program will be able to recognize the power, ethical ramifications, and consequences of communication style as it relates to personal and professional success in a diverse society.• Graduates of the bachelor's program will be able to design and disseminate compelling messages that create understanding and desired results using a variety of traditional and innovative modalities.
Global Citizenship Graduates of Grand Canyon University's bachelor's program will be able to apply empathy, identify ethnocentrism, and defend the reality that people are different with different perspectives on history, religion, value-systems, and many other aspects of life and living.	<ul style="list-style-type: none">• Graduates of the bachelor's program will be able to develop long-term relationships across cultures through effective communication.• Graduates of the bachelor's program will be able to perform service initiatives from a tradition of servant leadership in an effort to foster positive interpersonal relationships and a dynamic global community.• Graduates of the bachelor's program will be able to apply the necessary skills to work effectively with individuals from diverse cultural backgrounds.
Critical Thinking Graduates of Grand Canyon University's bachelor's program will be able to show clarity and logic in thought by asking questions and pursuing knowledge to avoid delusion and blind acceptance of ideas, to reduce vulnerability, and to work to find solutions rather than dwell on problems.	<ul style="list-style-type: none">• Graduates of the bachelor's program will be able to use personal skill sets of critical thinking, risk assessment, decision-making, analytical skills, and creativity that promote effective judgment and actions.• Graduates of the bachelor's program will be able to apply social judgment skills and knowledge gained through gathering, sorting, analyzing, applying, and evaluating information to solve problems in applied learning settings.• Graduates of the bachelor's program will be able to make informed decisions based on historical, current, reliable, and valid information.

Domains	Competencies
Christian Heritage Graduates of Grand Canyon University's bachelor's program will be able to identify and express aspects of a Christian heritage which affect their relationships with others and the community, as well as their decision-making processes.	<ul style="list-style-type: none"> • Graduates of the bachelor's program will be able to articulate an awareness of a Christian heritage and its effects on Western society. • Graduates of the bachelor's program will be able to identify and comprehend the moral and ethical foundations of Judeo-Christian thought, and analyze situations and problems from this basis. • Graduates of the bachelor's program will be able to demonstrate the ability to make values-based decisions from the perspective of a Christian heritage.
Technology Graduates of Grand Canyon University's bachelor's program will be able to demonstrate efficient and effective use of technological tools.	<ul style="list-style-type: none"> • Graduates of the bachelor's program will be able to retrieve, organize, assess, process, and safely secure information. • Graduates of the bachelor's program will be able to demonstrate proficiency and adaptability in commonly accepted applications and devices. • Graduates of the bachelor's program will be able to demonstrate competence in mediated communication, connect globally to present an "e-self" that is sensitive to audience and context, and analyze and interpret visual rhetoric.

Mission-based Master's Competencies

Domains	Competencies
Leadership Graduates of Grand Canyon University's master's program will be able to establish effective leadership by being grounded in the reality of the world, accepting the consequences of choice, and striving unselfishly to help others meet their highest potential.	<ul style="list-style-type: none"> • Graduates of the master's program will be able to utilize responsible leadership through the application of leadership models. • Graduates of the master's program will be able to integrate leadership skills that inform, inspire, and motivate others to achieve their goals. • Graduates of the master's program will be able to select effective leadership styles appropriate to the situation. • Graduates of the master's program will be able to improve their leadership by applying initiative, political sensitivity, self-discipline, and perseverance.
Communication Graduates of Grand Canyon University's master's program will be able to identify and cultivate interpersonal and professional communication behaviors essential to servant leadership and rooted in Christian ethical belief.	<ul style="list-style-type: none"> • Graduates of the master's program will be able to operate in a pluralistic society developing authentic relationships and contributing to their discipline, while serving and promoting community. • Graduates of the master's program will be able to formulate clear and compelling arguments, rationally constructed, prefaced by critical analysis, and composed with a conscious awareness of the power, ethical ramifications, and consequences of communication style. • Graduates of the master's program will be able to design and execute clear communication, which creates understanding and achieves desired results through a variety of communication modalities.
Global Citizenship Graduates of Grand Canyon University's master's program will be able to propose empathy, refute ethnocentrism, and champion the reality that people are different with different perspectives on history, religion, value-systems, and many other aspects of life and living.	<ul style="list-style-type: none"> • Graduates of the master's program will be able to guide and manage global organizations, applying business knowledge within cross-cultural contexts. • Graduates of the master's program will be able to support a global mindset that is sensitive to cultural differences and tolerant of differing perspectives, practices, and values. • Graduates of the master's program will be able to value cultural diversity in order to build more innovative and competitive organizations. • Graduates of the master's program will be able to construct responsible plans and decisions that balance the creation of economic wealth with the promotion of human welfare worldwide.

Domains	Competencies
Critical Thinking Graduates of Grand Canyon University's master's program will be able to champion clarity and logic in thought by asking questions and pursuing knowledge to avoid delusion and blind acceptance of ideas, to reduce vulnerability, and to work to find solutions rather than dwell on problems.	<ul style="list-style-type: none"> • Graduates of the master's program will be able to evaluate and synthesize personal skill sets of critical thinking, risk assessment, decision-making, analytical skills, and creativity to promote effective judgment and actions. • Graduates of the master's program will be able to utilize social judgment skills and research through gathering, sorting, analyzing, applying, and evaluating information to solve problems. • Graduates of the master's program will be able to evaluate information based on historical, current, reliable, and valid information and to utilize applications of research to impact decision-making.
Values & Ethics Graduates of Grand Canyon University's master's program will be able to model and communicate the values and ethics formulated within the context of a global perspective by critically integrating them into their decision-making.	<ul style="list-style-type: none"> • Graduates of the master's program will be able to demonstrate cultural competence by synthesizing a variety of views and perspectives on values and ethics. • Graduates of the master's program will be able to integrate course work, professional life, life experience, and educational experience into a coherent values-based worldview. • Graduates of the master's program will be able to investigate the historical foundations of critical thought through the context of values and ethics to find meaning, construct knowledge, and deconstruct faulty thinking. • Graduates of the master's program will be able to demonstrate the ability to communicate and model a holistic ethical system.
Technology Graduates of Grand Canyon University's master's program will demonstrate the use of technological tools as well as efficient and effective use of the tools themselves, including retrieving, organizing, and assessing information; securing information; and analyzing information as the basis for evidence-driven action.	<ul style="list-style-type: none"> • Graduates of the master's program will be able to judge the quality of information to determine how it can be best used for problem solving, through development and application of data models, both quantitative and qualitative, to identify and project patterns and trends. • Graduates of the master's program will be able to develop proficiency in practices that assure the confidentiality, quality, and continuing existence of information. • Graduates of the master's program will be able to demonstrate efficiency in strategies, which will ensure efficient and effective analysis and use of information.

Mission-based Doctoral Competencies

Domains	Competencies
Leadership Graduates of Grand Canyon University's doctoral program will be able to achieve effective leadership in their organization and discipline by making discoveries, contributing knowledge founded and rooted in proven theory through research, and making effective use of leadership to manage change.	<ul style="list-style-type: none"> • Graduates of the doctoral program will be able to act as leaders in their discipline through the active application of knowledge in an intelligent and effective way to lead and construct an inventive, original, and creative vision. • Graduates of the doctoral program will be able to employ meta-thinking and self-evaluation to assess their current leadership style and leadership potential in order to develop clarity of vision, purpose, and action in the leading of self and others. • Graduates of the doctoral program will be able to utilize compelling leadership styles and models to manage change, exercise influence, empower others, create interest, motivate followers, and have a greater impact in their field of study.
Communication Graduates of Grand Canyon University's doctoral program will be able to communicate effectively the results of their research in an academic environment, demonstrate a strong link between behaviors, beliefs and ethical values, and be good stewards of their words.	<ul style="list-style-type: none"> • Graduates of the doctoral program will be able to combine effective oral and written communication to disseminate clear and compelling research to the academic community through multiple modalities in a way that promotes excellence in their discipline. • Graduates of the doctoral program will be able to design and execute succinct synthesis of ideas and data while guiding followers through skilled use of verbal imagery, active listening skill, and audience assessment.

Domains	Competencies
Global Citizenship Graduates of Grand Canyon University's doctoral program will be able to build practices and a culture which honor diversity, demonstrate cultural sensitivity, engage in globally focused leadership, and value international perspectives.	<ul style="list-style-type: none"> • Graduates of the doctoral program will be able to apply and analyze cultural implications rooted in diverse ethical and global systems to transcend geographical and cultural paradigms, allowing them to think in interconnected and important ways that expand beyond the organization's boundaries and into the global community. • Graduates of the doctoral program will be able to become participants in the global academic community, view their scholarly area from a global perspective, approach scholarly activity from a global mindset, and pursue research beyond the academic traditions of a single culture.
Critical Thinking Graduates of Grand Canyon University's doctoral program will be able to understand the history of ideas, employ empirical examples in order to provide relevance and validity to ideas, and judge their capacity to act based upon various scales of intelligence to create change.	<ul style="list-style-type: none"> • Graduates of the doctoral program will be able to use critical thinking skills to sustain research and analysis for the purpose of attaining new cognitive processes, critique opinions and assumptions using intellectual reasoning free of egocentrism, and research patterns and relationships in order to promote change. • Graduates of the doctoral program will be able to create new knowledge through critical thinking by combining and integrating different opinions to further understanding in their field.
Values & Ethics Graduates of Grand Canyon University's doctoral program will be able to model and communicate at the organizational level the values and ethics formulated within the context of a global perspective by critically integrating into their decision-making and other professional actions as leaders those values and ethics.	<ul style="list-style-type: none"> • Graduates of the doctoral program will be able to integrate a multiplicity of views and perspectives to develop cultural competence through values and ethics, while having the capacity to understand and synthesize other worldviews into their actions. • Graduates of the doctoral program will be able to formulate leadership strategies through the context of the highest ethical standards to inform behavior. • Graduates of the doctoral program will be able to effect change and align belief systems in their respective organizations relative to the highest values and ethical standards. • Graduates of the doctoral program will be able to investigate the historical foundations of critical thought through the context of values and ethics to find meaning, construct knowledge, and deconstruct faulty thinking.
Technology Graduates of Grand Canyon University's doctoral program will demonstrate the leadership practices that guide the use of technological tools as well as efficient and effective use of the tools themselves, including retrieving, organizing, and assessing information; securing information; and analyzing information as the basis for evidence-driven action.	<ul style="list-style-type: none"> • Graduates of the doctoral program will be able to direct the formulation of policies and implementation strategies for efficient and effective retrieval and organization of information. • Graduates of the doctoral program will be able to judge the quality of information to determine how it can be best used for organizational problem solving, through development and application of data models, both quantitative and qualitative, to identify and project patterns and trends. • Graduates of the doctoral program will be able to develop and implement at the organizational level practices that assure the confidentiality, quality, and continuing existence of information. • Graduates of the doctoral program will be able to demonstrate leadership dedicated to evidence-driven action by formulating policies and implement strategies at the organizational level which will ensure efficient and effective analysis and use of information.

Historical Sketch

Grand Canyon College was chartered on August 1, 1949, with 16 faculty and approximately 100 students, many of them veterans. In 1951 the College put up its first permanent buildings on a 90-acre tract in west Phoenix. Grand Canyon College was fully accredited in 1968 by the Commission on Institutions of Higher Education, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504, 312-263-0456, 800-621-7440.

Established as a Baptist-affiliated institution with a strong emphasis on religious studies, the school initially focused on offering bachelor's degree programs in education. Over the years, the school expanded its curricula to include programs in the sciences, nursing, business, music, and arts, and developed a strong reputation for producing some of the most effective teachers, nurses, health care professionals and fine-arts students in the Southwest.

During planning for the change in institutional organization and status from Grand Canyon College to Grand Canyon University, the institution identified several landmark events that had been and would be pivotal during this transition. These included, but were not limited to, the organization of programs and departments into multiple colleges, the offering of graduate degree programs, the formation of the Grand Canyon University Foundation, and the generosity of several individuals who pledged or gave unrestricted gifts valued at one million dollars or more to launch the University into the next decade and century. In May of 1984, the College trustees voted to prepare for transition to University status on the school's 40th anniversary in 1989. Another landmark event occurred at the turn of the century that moved the University away from being owned and operated by the Arizona Southern Baptist Convention to being self-owned by the Board of Trustees.

By the early 2000's, though, GCU was struggling with maintaining its operations in light of dwindling financial support. In September 2003, the University was at a critical juncture, teetering on the verge of insolvency and facing the prospect of bankruptcy with a limited student body. In early 2004, a small group of investors acquired the University and undertook a mission to salvage GCU by focusing primarily on offering online programs to working adults. With an improving financial structure, but a languishing student body and campus, the University recruited a new leadership team in 2008 to envision a future for GCU that centered around a hybrid campus strategy that combined a thriving, traditional student body with a growing nontraditional student body focused primarily on working adults studying at the graduate level. To generate the additional capital necessary to improve its online campus infrastructure and begin the expansion of its ground, traditional campus, the University completed an initial public offering in 2008.

The University began to implement its vision in earnest by making significant investments in its campus. The University began to see a transformation in the quality and growth of its traditional student body which grew from less than 1,000 students attending its campus in 2009 to approximately 19,000 students in fall 2017, with an incoming GPA of approximately 3.5. GCU's nontraditional student body also made tremendous strides during this time as well, growing from approximately 22,000 students at the beginning of 2009 to approximately 70,000 students at the end of 2017, with greater than 50% studying in graduate programs. Almost 70% of the University's traditional students are studying in rigorous science, technology, engineering, math and business programs and the University expects to see its overall traditional student body expand to approximately 25,000 students by 2025.

In total, since 2009, the University has invested over one billion dollars in facilities and technology infrastructure. The University continues to invest in full-time faculty teaching both traditional and nontraditional students, improved technology infrastructure and programmatic expansion in high-growth, high-demand areas such as engineering, computer science, and information technology. Importantly, the University has been able to self-fund these investments with only nominal increases in tuition for nontraditional students while freezing tuition for traditional students for 10 straight years.

GCU's unique history and recent transformation are distinctive in higher education today as no other university in the country has seen such dramatic change. This is further evidenced in 2018 when GCU transitioned back to a non-profit institution. This decision provided faculty and students equitable opportunities to participate in academic and co-curricular opportunities with peer-institutions, to operate a philanthropic foundation and provide grant writing and research opportunities for faculty and students, to invest in educational infrastructure allowing the University to continue offering tuition at levels that make private higher education affordable to all socio-economic classes of Americans, to provide employment and career growth opportunities for faculty and staff, and continue to invest in the communities the University serves. This transition also allowed student-athletes to participate in governance opportunities afforded by the NCAA.

Board of Trustees

Will Gonzalez, Chairman
City of Phoenix Prosecutor's Office
M.S., Grand Canyon University; J.D., Thurgood Marshall School of Law

Don Andorfer
Previous Grand Canyon University Interim President, Spring 2006
B.S., M.A., Ball State University

Peggy J. Chase
President and CEO, Terros Health
B.S.W., Arizona State University

Dr. Lupita Ley Hightower
Superintendent, Tolleson Elementary School District No. 17
B.S., University of Arizona; MEd, EdD, Arizona State University

Marion Kelly
Director Community Affairs, Mayo Clinic
B.A., Kentucky State University; B.A., University of Kentucky

Dr. Fred Miller
Medical Director, Bridgeway Health Solutions
M.S., PhD, Howard University; CMD, University of Medicine & Dentistry

Dr. Jim Rice
Retired Superintendent of the Alhambra Elementary School District
B.S., Grand Canyon University; MEd, EdD, Arizona State University
Spring 2020 Academic Catalog

Contributors

- Dave Brazell Stadium: David and Mildred Brazell
- The Cooke Health Center: Alumni Association
- Ethington Memorial Theatre: Peter and Anna Ethington
- Fleming Classroom Building and Library: Mr. and Mrs. William Fleming
- College of Nursing and Health Care Professions: Samaritan Foundation
- Tim Salmon Baseball Clubhouse: Tim and Marci Salmon
- Smith Arts Complex: C. J. and Thelma Smith
- Smithey-Parker Building: Jerry and Sarah Smithey along with Bill and Joyce Parker
- Tell Science Building: Mr. and Mrs. Andrew P. Tell
- Williams Building: Dr. Bill and Shirley Williams
- Hegel Hall: Dr. Joni Hegel

University Seal

When the Grand Canyon College seal was adopted in 1950, two of its major components were the cross and the cactus. The saguaro cactus rises from its desert setting to signify the intellectual opportunity for Grand Canyon University students, counteracting the arid mental state of uneducated man. The cross stands prominently on the horizon as a guide for spiritual enlightenment. Between the outer circle representing the earth and the inner circle representing the wheel of progress, the name of the University and its location are inscribed. The use of the seal is permitted only with approval of the Chief Executive Officer of the University.



University Mascot and Colors

The University mascot is the antelope. Antelope are native to the region surrounding Prescott, Arizona, near the college's first campus. The mascot reminds us of our heritage and humble beginnings. School colors are purple, black, and white. Students, employees, or contractors of the University shall not use the Grand Canyon University name, logo, or mascot in connection with any commercial venture without written approval of the Chief Executive Officer.



Statement of Principle

The words of the Alma Mater summarize the attitude and spirit of Grand Canyon University:

ALMA MATER

Hail to thee, Grand Can-yon Col-lege

Al-ma Ma-ter True.

Set a-midst the des-ert's glo-ry,

High-est praise to you.

So to God our hopes as-pir-ing,

This our pledge di-vine,

Striv-ing, seek-ing, find-ing, serv-ing

God and all man-kind.

Words and music composed by Dr. Chester S. Bagg

The musical score is written on eight staves. Each staff has a treble clef and a key signature of one flat (B-flat). The lyrics are written below each staff. The music is a simple, melodic tune. The final line of the score is "God and all man-kind." followed by the attribution "Words and music composed by Dr. Chester S. Bagg".

University Calendar

Traditional Campus Students

Spring: 1/6/2020 – 4/26/2020

Instruction/Grade Calendars (15-Week Classes)

Move in Date.....	January 4-5, 2020
Instruction begins	January 6, 2020
Martin Luther King Jr. Day	January 20, 2020
President's Day	February 17, 2020
Spring Break	March 16-22, 2020
Good Friday	April 10, 2020
Face-to-Face Instruction Ends.....	April 22, 2020
Move out Date.....	
Non-Graduates.....	3 p.m., April 23, 2020
Graduates.....	12 p.m., April 25, 2020
Final Course Grades Due	May 3, 2020
Summer Break.....	April 27, 2020 - May 3, 2020
See Policy Handbook Refund Policy	Variable Dates

Spring Traditional Campus Commencement*

Traditional Campus Commencement	April 24, 2020
By College.....	9 a.m., 2 p.m. and 7 p.m.

Summer: 5/4/2020 – 8/16/2020

Instruction/Grade Calendars (15-Week Classes)

Instruction begins	May 4, 2020
Move in Date.....	May 4, 2020
Memorial Day	May 25, 2020
Session A.....	May 4, 2020 - June 21, 2020
Independence Day	July 4, 2020
*Final Drop Date.....	July 19, 2020
Session B.....	June 22, 2020 - August 9, 2020
Face-to-face Instruction ends	August 12, 2020
End of Term	August 16, 2020
Fall Break.....	August 17-23, 2020
Final Course Grades Due	7 a.m., August 23, 2020
Summer Residents Move to Fall Housing	TBD
Move out Date for Non-Fall Residents.....	
Non-Graduates.....	TBD
Graduates.....	TBD
See Policy Handbook Refund Policy	Variable Dates

Fall: 8/24/2020 – 12/13/2020

Instruction/Grade Calendars (15-Week Classes)

Instruction begins	August 24, 2020
Labor Day	September 7, 2020
Veteran's Day	November 11, 2020

*Final Drop Date.....	November 15, 2020
Thanksgiving.....	November 26, 2020
Thanksgiving Break	November 23-29, 2020
Face-to-Face Instruction Ends.....	December 9, 2020
End of Term	December 13, 2020
Final Course Grades Due	December 20, 2020
Christmas Eve/Day.....	December 24-25, 2020
Christmas Break	December 14, 2020 - January 3, 2021
Move in Date.....	TBD
Move out Date for Fall-only Students	
Non-Graduates.....	TBD
Graduates.....	TBD
Living Areas Closed for Christmas	TBD
See Policy Handbook Refund Policy	Variable Dates

Winter Traditional Campus Commencement*

Traditional Campus Commencement	TBD
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Nontraditional Campus Students (Online, Evening-Satellite, and Evening-Campus)

Please note that online, onsite and offsite cohort students have classes that begin frequently. Therefore, students are encouraged to contact their University Counselor or Student Services Counselor for more information on class starts.

Spring Online College Commencement*

Online College Commencement.....	April 30, 2020 - May 1, 2020
By College.....	9 a.m., 2 p.m. and 7 p.m.

*For courses shorter than 15 weeks, please refer to the course drop policy in the [Policy Handbook](#)..... Variable Dates

**Dates and times of commencement ceremonies may be subject to change.

2020 Online Christmas Break Schedule

Undergraduates	December 21, 2020 - January 3, 2021
Graduates	December 24, 2020 - January 6, 2021

Holiday Schedule

Holiday	Campus Offices Closed	Evening Classes <i>do not</i> Meet	Online Classes Meet	Traditional students on campus <i>do</i> <i>not</i> meet
New Year's Day 1/1/20	X	X	X	X
Martin Luther King Day 1/20/20	X	X	X	X
President's Day 2/17/20	X	X	X	X
Good Friday 4/10/20	X	X	X	X
Memorial Day 5/25/20	X	X	X	X
Independence Day 7/4/20	X	X	X	X
Labor Day 9/7/20	X	X	X	X
Veteran's Day Observed 11/11/20		X	X	X
Thanksgiving <i>and the following Friday</i> 11/26-11/27/20	X	X	X	X
Christmas Day 12/25/19	X	X	X	X

Online Note: Online students are encouraged to submit work early if an assignment due date falls directly on a holiday. Students are still responsible for timely submission of work.

Evening Classes Note: Classes with scheduled meeting days of the listed holidays will not meet in-person the week of the holiday. During that week, faculty members and students will participate in the online classroom, following the online participation requirements including posting substantively throughout the week.

Evening Classes and Traditional Students Note: In observation of holidays that fall on weekend days, classes do not meet on the Friday before a Saturday holiday, or the Monday after a Sunday holiday.

Degrees Offered

The University offers curricula leading to the degrees of Doctor of Business Administration, Doctor of Education, Doctor of Nursing Practice, Doctor of Philosophy, Master of Arts, Master of Business Administration, Master of Divinity, Master of Education, Master of Public Administration, Master of Public Health, Master of Science, Bachelor of Arts, and Bachelor of Science, as well as offering graduate and undergraduate certificates. Please refer to the university website (www.gcu.edu) for the locations/modalities in for each program. Students should be advised that some degree programs at GCU have competitive admissions or require college-specific admission requirements beyond the University level admission requirements. If a program is offered on campus and online, the courses within the program are the same regardless of modality.

Doctoral Programs

Doctor of Business Administration

The Doctor of Business Administration (D.B.A.) is designed for those who desire a deeper understanding of business theory and its application to their area of professional interest. Grand Canyon University offers the following emphases for this degree:

- Data Analytics
- Management
- Marketing

Doctor of Education in Organizational Leadership

The Doctor of Education (Ed.D.) in Organizational Leadership program is delivered through a combination of online courses and face-to-face residencies. Aspects of the program's curriculum and instruction are shared by the College of Education, College of Humanities and Social Sciences, College of Nursing and Health Care Professions, College of Theology and the Colangelo College of Business, meeting the needs of master's-prepared professionals seeking a terminal degree in leadership. Grand Canyon University offers the following emphases for this degree:

- Behavioral Health
- Christian Ministry
- Health Care Administration
- Higher Education Leadership
- K-12 Leadership
- Organizational Development
- Special Education

Doctor of Education in Teaching and Learning with an Emphasis in Adult Learning

The Doctor of Education in Teaching and Learning program develops educators capable of generating new knowledge and responsibly applying knowledge to achieve educational outcomes as well as mentoring, coaching, and collaborating from the perspective of the Christian worldview. Students will study the major bodies of literature in educational theory and philosophy, will reflect critically on existing theory, will identify appropriate applications of theory, and will conceptualize philosophy from its theoretic foundation. Students will develop academic and research expertise through the study of research methodology. The program of study is consistent with Grand Canyon University's mission to develop students who are global citizens, critical thinkers, effective communicators, and responsible leaders. Grand Canyon University offers the following emphasis for this degree:

- Adult Learning

Doctor of Nursing Practice

The Doctor Nursing Practice Degree (DNP) encompasses a mixture of didactic courses and mentored practicum experiences.

Each course allows for the demonstration and achievement of programmatic competencies and objectives through real-world health care systems application. The curriculum and instruction meet the needs of master's-prepared nurses seeking a terminal-practice degree. Grand Canyon University offers the following emphasis for this degree:

- Educational Leadership

Doctor of Philosophy in Counselor Education and Supervision

The doctoral degree in Counselor Education and Supervision is intended to prepare graduates to work as counselor educators, supervisors, researchers, and practitioners in academic and clinical settings. The standards for this program are intended to accommodate the unique strengths of students seeking to enhance their leadership and counseling skills.

Doctor of Philosophy in General Psychology

The Doctor of Philosophy (Ph.D.) in General Psychology program offers a broad array of courses that increase the understanding of human actions in the past and present. Grand Canyon University offers the following emphases for this degree:

- Cognition and Instruction
- Industrial and Organizational Psychology
- Integrating Technology, Learning and Psychology
- Performance Psychology

Education Specialist

The Education Specialist (Ed.S.) in K-12 Leadership program develops and enhances the learner's ability to grasp, process, and apply doctoral-level constructs that positions them for organizational governance, capacity building, and vision casting.

Professional Programs

Post-Master of Arts in Theology: Introductory Biblical Languages Certificate

The Post-Master of Arts in Theology Certificate provides experienced professionals with fundamental understandings and skills that prepare them to properly interpret and communicate the biblical text for the sake of ministry within a local church. Grand Canyon University offers the following emphasis for this degree:

- Introductory Biblical Languages

Post-Master of Science in Counseling

- Addiction Counseling
- Childhood and Adolescence Disorders
- Marriage and Family Therapy
- Trauma

Post-Master of Science in Nursing Certificates

The Post-Master of Science in Nursing Certificates prepare experienced registered nurses to provide competent advanced practice nursing care through an evidence-based program of study. Grand Canyon University offers the following emphases for this degree:

- Acute Care Nurse Practitioner Certificate with an Emphasis in Adult Gerontology
- Family Nurse Practitioner Cert
- Nursing Education Certificate

Master Programs

Bridge to Doctor of Philosophy

- Counselor Education and Supervision

Master of Arts

The Master of Arts is granted to those students who have completed a bachelor's degree at an accredited, GCU-approved institution and are seeking a Master of Arts degree.

- Autism Spectrum Disorders
- Christian Leadership
- Christian Ministry
- Communication
 - Emphasis in Education
- Curriculum and Instruction
- English
 - Emphasis in Education
- Higher Education Student Affairs
- History
 - Emphasis in Education
- Reading
 - Emphasis in Elementary Education
 - Emphasis in Secondary Education
- Teaching English to Speakers of Other Languages
- Urban Ministry
- Youth and Family Ministry

Master of Business Administration

The Master of Business Administration is designed for those students who have previously completed a bachelor's degree at an accredited, GCU-approved institution.

- Emphases in:
 - Accounting
 - Cybersecurity
 - Finance
 - Health Systems Management
 - Leadership
 - Marketing
 - Project Management
 - Sports Business
 - Strategic Human Resource Management

Master of Business Administration and Master of Science in Leadership

The Master of Business Administration and Master of Science in Leadership is designed for those students who have previously completed a bachelor's degree at an accredited, GCU-approved institution.

Master of Business Administration and Master of Science in Nursing

The Master of Business Administration and Master of Science in Nursing is designed for those students who have previously completed a bachelor's degree at an accredited, GCU-approved institution.

Master of Divinity

The Master of Divinity is the standard degree for professional ministry preparation and is designed for students who intend to serve in local churches, Christian organizations, and other ministerial roles. The Master of Divinity program offers comprehensive biblical and theological knowledge while developing skills necessary for effective Christian ministry. This degree features a foundational, pastorally oriented program of study that emphasizes the centrality of the gospel, the significance of the church, and the pressing need to advance the Kingdom of God through missions.

Master of Education

The Master of Education degree is designed for students who have previously completed a bachelor's degree at an accredited, GCU-approved institution and may be seeking certification at the elementary or secondary level. An advanced Program of Study is included in that preparation or can be obtained after certification requirements are completed. This degree is available in the following specialized areas:

- Early Childhood Education
 - Early Childhood Education and Early Childhood Special Education
 - Educational Administration
 - Educational Leadership
 - Elementary Education
 - School Counseling
 - Secondary Education
 - Emphasis in Humanities*
 - Emphasis in Humanities¢
 - Emphasis in Science Technology Engineering and Mathematics*
 - Emphasis in Science Technology Engineering and Mathematics¢
 - Secondary Humanities Education
 - Secondary STEM Education
 - Special Education
- * Initial Program – Leads to Initial Teacher Licensure
¢ Initial Program – Does Not Lead to Initial Teacher Licensure

Master of Public Administration

The Master of Public Administration is designed for those students who have previously completed a bachelor's degree at an accredited, GCU-approved institution.

- Emphases in:
 - Government and Policy
 - Health Care Management
 - Non-Profit Management

Master of Public Health

The Master of Public Health is designed for those students who have previously completed a bachelor's degree at an accredited, GCU-approved institution.

Master of Science

The Master of Science is granted to those students who have completed a bachelor's degree at an accredited, GCU-approved institution and are seeking a Master of Science degree.

- Accounting
- Addiction Counseling
- Biology
 - Emphasis in Education
- Business Analytics
- Chemistry
 - Emphasis in Education
- Christian Counseling
 - Emphasis in Substance Use and Addiction Disorders
- Clinical Mental Health Counseling
 - Emphasis in Childhood and Adolescence Disorders
 - Emphasis in Christian Counseling
 - Emphasis in Marriage and Family Therapy
 - Emphasis in Trauma
- Computer Science
- Criminal Justice
 - Emphasis in Law Enforcement
 - Emphasis in Legal Studies
- Cybersecurity
- Data Science
- Health Care Administration
- Health Informatics
- Information Assurance and Cybersecurity
- Information Technology Management
- Instructional Technology
- Leadership
 - Emphasis in Disaster Preparedness and Executive Fire Leadership
 - Emphasis in Homeland Security and Emergency Management
- Mathematics
 - Emphasis in Education
- Mental Health and Wellness
 - Emphasis in Christian Ministry
 - Emphasis in Community Mental Health Administration
 - Emphasis in Family Dynamics
 - Emphasis in Grief and Bereavement
 - Emphasis in Integrated Health
 - Emphasis in Prevention
- Nursing
 - Emphasis in Acute Care Nurse Practitioner with an Emphasis in Adult Gerontology
 - Emphasis in Family Nurse Practitioner
 - Emphasis in Health Care Quality and Patient Safety
 - Emphasis in Health Informatics
 - Emphasis in Leadership in Health Care Systems
 - Emphasis in Nursing Education
 - Emphasis in Public Health Nursing
- Organizational Leadership and Entrepreneurship
- Professional Counseling
- Psychology
 - Emphasis in Forensic Psychology
 - Emphasis in General Psychology
 - Emphasis in GeroPsychology
 - Emphasis in Health Psychology
 - Emphasis in Human Factors Psychology
 - Emphasis in Industrial and Organizational Psychology

- Emphasis in Life Coaching
- Sociology
 - Emphasis in Education

Master of Social Work

Graduate Certificates of Completion

Graduate certificates of completion are designed for working professionals who hold a bachelor's and/or master's degree. These programs provide the opportunity for students to gain credits in master's-level coursework without having to enroll in and complete a graduate program of study. Coursework is designed to give students advanced knowledge and skills in a particular area of study that is pertinent to their career and life goals.

- Biblical Foundations
- Christian Counseling
- Christian Theology
- Communication
- English
- Forensic Psychology
- GeroPsychology
- Health Care Quality and Patient Safety
- Health Psychology
- History
- Human Factors Psychology
- Industrial and Organizational Psychology
- Life Coaching
- Mathematics
- Mental Health and Wellness
 - Community Mental Health Administration
 - Christian Ministry
 - Family Dynamics
 - Grief and Bereavement
 - Integrated Health
- Ministry Education
- Project Management
- Sociology
- Teaching English to Speakers of Other Languages

Baccalaureate Programs

Bachelor of Arts

The Bachelor of Arts degree is granted to majors who complete all requirements in one the following areas:

- Advertising and Graphic Design
- Christian Ministry
- Christian Studies
 - Emphasis in Biblical Studies
 - Emphasis in Global Ministry
 - Emphasis in Philosophy
 - Emphasis in Worship Leadership
 - Emphasis in Youth Ministry
- Communication
- Dance
- Dance Secondary Education
- Digital Design
 - Emphasis in Animation

- Emphasis in Web Design
 - Digital Film
 - Emphasis in Production
 - Emphasis in Screenwriting
 - English
 - Emphasis in Professional Writing
 - English for Secondary Education
 - Government
 - Emphasis in Legal Studies
 - Emphasis in State and Local Public Policy
 - History
 - History for Secondary Education
 - Music
 - Emphasis in Instrumental Performance
 - Emphasis in Piano Performance
 - Emphasis in Voice Performance
 - Music Education
 - Emphasis in Choral: Piano*
 - Emphasis in Choral: Voice*
 - Emphasis in Instrumental: Brass, Woodwind, Percussion, or Strings*
 - Emphasis in Instrumental: Piano*
 - Spanish
 - Theatre
 - Emphasis in Theatre and Drama
 - Theatre Secondary Education
 - Worship Arts
 - Emphasis in Media and Production Ministry
 - Emphasis in Worship Ministry
- * Initial Program – Leads to Initial Teacher Licensure

Bachelor of Science

The Bachelor of Science degree is granted to majors who complete all requirements in one the following areas:

- Accounting
- Applied Business Analytics
- Applied Business Information Systems
- Applied Entrepreneurship
- Applied Management
- Applied Marketing and Advertising
- Athletic Training
- Behavioral Health Science
 - Emphasis in Childhood and Adolescence Disorders
 - Emphasis in Family Dynamics
 - Emphasis in Infancy and Early Childhood Studies
 - Emphasis in Substance Use Disorders
 - Emphasis in Trauma
- Biochemistry and Molecular Biology
- Biological Sciences
- Biology
 - Emphasis in Pre-Medicine
 - Emphasis in Pre-Pharmacy
 - Emphasis in Pre-Physical Therapy
 - Emphasis in Pre-Physician Assistant
- Biology for Secondary Education
- Biomedical Engineering
- Business Administration
- Business Analytics
- Business for Secondary Education
- Business Information Systems
- Business Management
- Chemistry
- Chemistry for Secondary Education
- Computer Programming
- Computer Science
 - Emphasis in Big Data Analytics
 - Emphasis in Business Entrepreneurship
 - Emphasis in Game and Simulation Development
- Counseling
 - Emphasis in Addiction, Chemical Dependency, and Substance Abuse
- Cybersecurity
- Early Childhood Education
- Early Childhood Education and Early Childhood Special Education
- Educational Studies
- Electrical Engineering
- Electrical Engineering Technology
- Elementary Education
 - Emphasis in Christian Education
 - Emphasis in English as a Second Language*
 - Emphasis in Science Technology Engineering and Mathematics
 - Emphasis in Teaching Reading*
- Elementary Education and Special Education
- Engineering
 - Emphasis in Robotics
- Entrepreneurial Studies
- Environmental Science
- Exercise Science
 - Emphasis in Health Education
 - Emphasis in Sports Performance
- Finance
- Finance and Economics
- Forensic Science
- Health Care Administration
- Health Information Management
- Health Science
 - Emphasis in Professional Development and Advanced Patient Care
- Health Sciences
- Homeland Security and Emergency Management
- Hospitality Management
- Information Technology
 - Emphasis in Cybersecurity
- Justice Studies
- Marketing and Advertising
- Mathematics for Secondary Education
- Mechanical Engineering
- Mechanical Engineering Technology
- Nursing
 - Emphasis in Pre-Licensure
 - Emphasis in Pre-Licensure
 - Emphasis in Pre-Requisites for Pre-Licensure, Accelerated (ABSN)
 - Emphasis in RN to BSN
- Nutritional Sciences
- Physical Education
- Psychology
 - Emphasis in Forensic Psychology
 - Emphasis in Performance and Sport Psychology
- Public Health

- Sociology
 - Emphasis in Social Work
- Software Engineering
- Sports Management
- Supply Chain and Logistics Management
- * Initial Program – Leads to Initial Teacher Licensure
- ∅ Initial Program – Does Not Lead to Initial Teacher Licensure

Undergraduate Diploma/Certificate - Undergraduate

- C#.NET Programming
- Cybersecurity Foundations
- Java Programming

Minors

- Accounting
- Advertising and Graphic Design
- Air Force (ROTC)
- Army (ROTC)
- Athletic Coaching
- Behavioral Health Sciences
- Biblical Studies
- Business Analytics
- Business Management
- Christian Studies
- Communication
- Counseling
- Criminal Justice
- Dance
- Database-Driven Web-Based Applications Development
- Digital Design

- Digital Film
- E-Business Applications Development
- Enterprise Applications Development
- Entrepreneurial Studies
- Finance and Economics
- Forensic Psychology
- General Business
- Hospitality Management
- Human Services Case Management
- Literature
- Marketing
- Mathematics
- Music – Instrumental
- Music – Piano
- Music – Vocal
- Philosophy
- Pre-Law
- Pre-Medicine
- Professional Writing
- Psychology
- Public Administration
- Social Work
- Sports Management
- Spanish
- Theatre
- Worship Arts

Note: Students should contact a University Counselor or Student Services Counselor for more information about program availability.

General Education Requirements

General Education coursework prepares Grand Canyon University graduates to think critically, communicate clearly, live responsibly in a diverse world, and thoughtfully integrate their faith and ethical convictions into all dimensions of life. These competencies, essential to an effective and satisfying life, are outlined in the General Education Learner Outcomes. General Education courses embody the breadth of human understanding and creativity contained in the liberal arts and sciences tradition. Students take an array of foundational knowledge courses that promote expanded knowledge, insight, and the outcomes identified in the University's General Education Competencies. The knowledge and skills students acquire through these courses serve as a foundation for successful careers and lifelong journeys of growing understanding and wisdom.

General Education Information

Requirements for Minnesota Students

Minnesota students should refer to the Minnesota-specific General Education requirements below, and consult their Student Services Counselor if necessary.

Recommended Sequence for Online Students

It is recommended that online students at Grand Canyon University use the suggested GCU Course Options identified in the table below and complete the sequence of general education courses in the following order:

Bachelor of Arts	Bachelor of Science
UNV-103/303 ^Ω	UNV-103/303 ^Ω
UNV-104	UNV-104
PSY-100	PHI-105
ENG-105 ^Δ	ENG-105 ^Δ
SOC-100	PSY-100
CWV-101/301 ^Ω	CWV-101/301 ^Ω
Major Course 1	Major Course 1
ENG-106 ^Δ	ENG-106 ^Δ
MAT-144	BIO-220
Major Course 2	Major Course 2
INT-244	SOC-100
COM-263	MAT-154 or MAT-144*

Students enrolled in the traditional campus may have a wider variety of options available in which to satisfy their general education requirements. Please contact your Student Services Counselor.

*Math requirement is dependent on Program of Study.

Bachelor of Arts

Competency	Requirements	GCU Course Options	Total Credits
University Foundations	<p>Upon completion of Grand Canyon University's University Foundation experience, students will be able to demonstrate competency in the areas of academic skills and self-leadership. They will be able to articulate the range of resources available to assist them, explore career options related to their area of study, and have knowledge of Grand Canyon's community. Students will be able to:</p> <ul style="list-style-type: none"> • Demonstrate foundational academic success skills • Explore GCU resources (CLA, library, Career Center, ADA office, etc.) • Articulate strategies of self-leadership and self-management • Recognize opportunities to engage in the GCU community. <p>Students with fewer than 24 credits will fulfill the University Foundations requirement with a specified lower-division course. An upper-division selection will be made available to students who enter the university with more than 24 credits.</p>	<ul style="list-style-type: none"> • UNV-103/303: University Success, 4 credits 	4
Effective Communication	<p>Graduates of Grand Canyon University will be able to construct rhetorically effective communications appropriate to diverse audiences, purposes, and occasions (English composition, communication, critical reading, foreign language, sign language, etc.). Students are required to take 3 credits of English grammar or composition.</p>	<ul style="list-style-type: none"> • UNV-104: 21st Century Skills: Communication and Information Literacy, 4 credits • ENG-105: English Composition I, 4 credits^A • ENG-106: English Composition II, 4 credits^A • COM-263: Elements of Intercultural Communication, 4 credits 	13-16
Christian Worldview	<p>Graduates of Grand Canyon University will be able to express aspects of Christian heritage and worldview. Students are required to take CWV-101 or CWV-301.</p>	<ul style="list-style-type: none"> • CWV-101/301: Christian Worldview, 4 credits 	4
Critical Thinking	<p>Graduates of Grand Canyon University will be able to use various analytic and problem-solving skills to examine, evaluate, and/or challenge ideas and arguments. Students are required to take 3 credits of college mathematics or higher.</p>	<ul style="list-style-type: none"> • MAT-144: College Mathematics, 4 credits 	3-4
Global Awareness, Perspectives, and Ethics	<p>Graduates of Grand Canyon University will be able to demonstrate awareness and appreciation of and empathy for differences in arts and culture, values, experiences, historical perspectives, and other aspects of life (psychology, sociology, government, Christian studies, Bible, geography, anthropology, economics, political science, child and family studies, law, ethics, cross-cultural studies, history, art, music, dance, theater, applied arts, literature, health, etc.).</p>	<ul style="list-style-type: none"> • INT-244: World Religions, 4 credits • PSY-100: Psychology in Everyday Life, 4 credits • SOC-100: Everyday Sociology, 4 credits <p>If the predefined course is a part of the major, students need to take an additional course.</p>	10-12

Bachelor of Science

Competency	Requirements	GCU Course Options	Total Credits
University Foundations	<p>Upon completion of Grand Canyon University's University Foundation experience, students will be able to demonstrate competency in the areas of academic skills and self-leadership. They will be able to articulate the range of resources available to assist them, explore career options related to their area of study, and have knowledge of Grand Canyon's community. Students will be able to:</p> <ul style="list-style-type: none"> • Demonstrate foundational academic success skills • Explore GCU resources (CLA, library, Career Center, ADA office, etc.) • Articulate strategies of self-leadership and self-management • Recognize opportunities to engage in the GCU community. <p>Students with fewer than 24 credits will fulfill the University Foundations requirement with a specified lower-division course. An upper-division selection will be made available to students who enter the university with more than 24 credits.</p>	<ul style="list-style-type: none"> • UNV-103/303: University Success, 4 credits (Required) • UNV-108: University Success in the College of Education, 4 credits • UNV-112: Success in Science, Engineering and Technology & Lab, 4 credits 	4
Effective Communication	<p>Graduates of Grand Canyon University will be able to construct rhetorically effective communications appropriate to diverse audiences, purposes, and occasions (English composition, communication, critical reading, foreign language, sign language, etc.). Students are required to take 3 credits of English grammar or composition.</p>	<ul style="list-style-type: none"> • UNV-104: 21st Century Skills: Communication and Information Literacy, 4 credits • ENG-105: English Composition I, 4 credits^Δ • ENG-106: English Composition II, 4 credits^Δ 	9-12
Christian Worldview	<p>Graduates of Grand Canyon University will be able to express aspects of Christian heritage and worldview. Students are required to take CWV-101 or CWV-301.</p>	<ul style="list-style-type: none"> • CWV-101/301: Christian Worldview, 4 credits 	4
Critical Thinking	<p>Graduates of Grand Canyon University will be able to use various analytic and problem-solving skills to examine, evaluate, and/or challenge ideas and arguments (mathematics, biology, chemistry, physics, geology, astronomy, physical geography, ecology, economics, logic, philosophy, technology, statistics, accounting, etc.). Students are required to take 3 credits of intermediate algebra or higher.</p>	<ul style="list-style-type: none"> • PHI-105: 21st Century Skills: Critical Thinking and Problem Solving, 4 credits • MAT-144: College Mathematics or MAT-154: Applications of College Algebra, 4 credits • BIO-220: Environmental Science, 4 credits 	11-12
Global Awareness, Perspectives, and Ethics	<p>Graduates of Grand Canyon University will be able to demonstrate awareness and appreciation of and empathy for differences in arts and culture, values, experiences, historical perspectives, and other aspects of life (psychology, sociology, government, Christian studies, Bible, geography, anthropology, economics, political science, child and family studies, law, ethics, cross-cultural studies, history, art, music, dance, theater, applied arts, literature, health, etc.).</p>	<ul style="list-style-type: none"> • HIS-144: U.S. History Themes, 4 credits • PSY-100: Psychology in Everyday Life, 4 credits • SOC-100: Everyday Sociology, 4 credits <p>If the predefined course is a part of the major, students need to take an additional course.</p>	6-8

Honors College

Honors College Description

Grand Canyon University's Honors College oversees the success of honors students as they progress through and complete required coursework in the honors program. Each college has a unique set of courses that must be taken to successfully complete the honors program and to earn a certificate of honors from the Honors College. Each college's honors program is designed to challenge students in the areas of personal and academic growth, as well as influence students' mental paradigms for viewing the world in which they live. This is accomplished by holistically developing competencies in the areas of decision-making and research, ethics, leadership, service, and cultural awareness. In particular, students will drive change that affects their community. Academically, the program consists of three general education courses, 8-9 credits of major coursework, and four annual symposia.

Honors College Mission

The honors program at Grand Canyon University is designed to produce exemplary graduates who are uniquely equipped to lead and serve in both the workplace and local and global communities. Academically advanced students participate in curricular and co-curricular experiences which are rigorous, meaningful, interdisciplinary, and unique to the honors community. The focus is on developing a depth and breadth of understanding of content within a challenging curriculum that holistically integrates faith, theory, practice and research. The goal of the honors program is to develop servant leaders and change agents who are primed to enter the world with a competitive advantage over their contemporaries in the fields of problem solving, communication, critical thinking, evidence-based decision making, and cultural awareness.

Honors College Goals

While the outcomes of the honors program cannot be confined to a list of specific tangible targets, servant leadership and scholarship are its overarching goals. The honors program:

- Focuses on transforming students academically through a broad exposure to many disciplines while being challenged to higher levels of thinking within those disciplines.
- Expects students to acquire Habits of Mind and novel ways of thinking that prepare them to analyze relevant issues and to become change agents who problem-solve solutions to real-world applications in innovative ways.
- Provides avenues for students to represent the university as ambassadors who display servant leadership through experiential learning and service opportunities.

Programs Requirements

The following expectations for coursework must be completed in order to earn a special designation upon graduation from the Honors College. The honors program in each college requires 20-21 credits in special honors coursework as well as attendance and participation in the annual spring symposia for each actively enrolled spring semester four annual symposia. The annual symposia are worth 0 credit, but they are mandatory.

Honors Major courses will be designated with the symbol †. Most colleges require two honors courses in the major (4 credits each) for a total of 8 credits. However, certain majors in the College of Nursing and Health Care Professionals and the College of Fine Arts and Production require three honors courses in the major (for a total of 9 credits). An additional honors major course must be completed if an approved ENG-206HN equivalent is transferred in by the student.

For questions, please review the Honors College website for additional details at www.gcu.edu/honors or contact the Honors College at GCUHonors@gu.edu.

Degree Requirements - Freshman

Total Honors General Education	8-12 credits
<i>All Honors General Education Coursework will apply to the General Education requirement.</i>	
Total Honors Major Coursework	8-12 credits
Total Honors College Coursework	20-21 credits

Required Honors Coursework

UNV-106HN^Ω	A Ripple in the Pond: From Idea to Impact	4 credits
CWV-106HN^Ω	Christianity: Story, Theology, and Mission	4 credits
HON-106^Ω	Freshman Symposium on Ethics: Culture, Perception, and Action	0 credits
ENG-206HN^Ω	The Power of Media: Social and Critical Approaches	4 credits
HON-206^Ω	Sophomore Symposium on Service: Human Connections	0 credits
HON-306^Ω	Junior Symposium on Leadership: the Last Shall Be First	0 credits
HON-406^Ω	Senior Symposium on Research: Ways of Thinking and Knowing	0 credits
Total General Education Honors Coursework		12 credits

Degree Requirements - Transfer Student

Total Honors General Education (UNV-106HN and CWV-106HN)*	8 credits*
<i>All Honors General Education Coursework will apply to the General Education requirement.</i>	

*If the student has already completed UNV-103, CWV-101 or ENG-106 as non-honors prior to being accepted into the Honors College, he/she will make up the honors credits by completing contracts for other courses in his/her program.

*Internal transfer students must complete the full honors application and be accepted to the Honors College prior to completing 36 credits at Grand Canyon University.

Total Honors Major Coursework	8-9 credits
Remaining Symposia offered each Spring	0 credits
Total Honors College Coursework	16-17 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

The Colangelo College of Business

College Description

The Colangelo College of Business (CCOB) focuses on providing cutting-edge and innovative courses designed to meet students' career needs. The College offers Programs of Study for those who desire the traditional four-year baccalaureate degree, accelerated degree-completion programs for working adults, and graduate degrees for working professionals. The College's academically qualified faculty has relevant business and teaching experience and is committed to providing an excellent business education through the primacy of teaching, offering small class sizes, and building student-faculty relationships that foster the student's academic and professional growth.

College Mission

The Colangelo College of Business challenges and inspires students to be servant leaders with the business skills and values necessary to drive organizational success and positively impact society.

College Features

The Colangelo College of Business is comprised of two academic schools. Each school serves a unique set of students and offers quality programs to meet specific students' career needs.

School of Business Studies

The School of Business Studies exists to serve both undergraduates who are preparing to initiate careers and working professionals who are seeking to develop their careers further. All programs within the School of Business Studies are developed in accordance with the accreditation standards of the Accreditation Council of Business Schools and Programs (ACBSP), which requires that a program be in existence for two or more years before it receives accreditation. Programs in the School of Business Studies that have reached this threshold and received ACBSP accreditation include the Bachelor of Science in Accounting, Bachelor of Science in Business Administration, Bachelor of Science in Entrepreneurial Studies, Bachelor of Science in Finance and Economics, Bachelor of Science in Marketing, and Master of Business Administration.

School of Business Studies: Undergraduate Programs

The School of Business Studies offers a Bachelor of Science degree with majors in Accounting, Business Administration, Entrepreneurial Studies, Finance and Economics, Marketing, and Sports Management. The accounting major and the finance and economics major are designed to prepare students for professional practice in corporate accounting and finance or for management positions in business. Completing the requirements for the accounting major qualifies students to sit for the Certified Management Accountant (CMA) examination and for the Certified Public Accountant (CPA) exam in most states. The entrepreneurship major is designed for students who desire to start their own business, or be a change agent for innovation within larger organizations. The business administration major is a broadly-based degree that emphasizes technical, human, and conceptual skills that encompass all functional areas of business. The marketing major combines a strong business core with special emphasis in market forces, marketing strategy, and sales management. The sports management major prepares students to become professional managers in areas such as sports marketing,

sports media, amateur and professional athletics, and sports and entertainment event planning.

Bachelor of Science in Accounting

The Bachelor of Science in Accounting program prepares graduates for a future career working as an accountant. Upon completing the bachelor's degree in accounting, students possess the skills necessary to work in a variety of careers, such as public accountant, corporate accountant, financial analyst, tax preparer, and auditor. Learning the core foundations of accounting principles and procedures, students qualify to sit for the Certified Management Accountant (CMA) exam. Graduates may qualify to sit for the Certified Public Accountant (CPA) exam in most states, while continuing to work toward the 150-credit hour minimum required for licensure. Coursework for the bachelor's degree in accounting includes a focus on accounting principles and theories necessary for preparing financial statements in the United States, and for decision making. Students explore auditing standards, the procedures involved in the auditing process, and ethical issues faced by auditors. Students also study the theories and practices of preparing income taxes of corporations, partnerships, estates, trusts, and individuals. In addition, principles of cost accounting, including job order costing systems, process costing, activity-based costing, and budgeting are also examined in this bachelor's degree in accounting.

Degree Requirements

Total General Education	34-40 credits
Total Accounting Major	68 credits
Total Electives	12-18 credits
Total Bachelor of Science in Accounting Program Credits	120 credits

Accounting Major

BIT-200 [†]	Introduction to Computer Technology	4 credits
ACC-250	Financial Accounting	4 credits
ACC-260	Management Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-340 ^Δ	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-361	Microeconomics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
ECN-362	Macroeconomics	4 credits
MGT-420	Organizational Behavior and Management	4 credits
ACC-370	Intermediate Accounting I	4 credits
ACC-371	Intermediate Accounting II	4 credits
ACC-360	Cost Accounting	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ACC-460	Taxation	4 credits
ACC-485	Advanced Accounting	4 credits
ACC-491	Auditing	4 credits
BUS-485^{ΔΩ}	Strategic Management	4 credits
Accounting Major		68 credits

Bachelor of Science in Applied Business Analytics

Grand Canyon University's Bachelor of Science in Applied Business Analytics program prepares students for career options that include business analytics analyst, business intelligence analyst, data analyst, business analytics manager, and business intelligence manager. Students examine the fundamentals of database structures, data mining, business analytics, and project management. Students also examine the role of governance and ethics within information technology with specific emphasis on preparing for an audit, complying with government regulations, and understanding data-privacy issues. Graduates are prepared to extract, analyze, and interpret data to help enable decision making within data-driven business environments.

Degree Requirements

Total General Education	34-40 credits
Total Applied Business Analytics Major	40 credits
Total Electives	40-46 credits
<hr/>	
Total Bachelor of Science in Applied Business Analytics Program Credits	120 credits

Applied Business Analytics Major

BIT-200	Introduction to Computer Technology	4 credits
BUS-352	Business Statistics	4 credits
SYM-400	Introduction to Relational Databases	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
BIT-430	Introduction to Business Analytics	4 credits
BIT-445	Data Mining	4 credits
BIT-415	IT Project Management	4 credits
BIT-417^Δ	IT Governance and Ethics	4 credits
BIT-435	Advanced Business Analytics	4 credits
BIT-455	Current Topics in Business Analytics	4 credits

Applied Business Analytics Major 40 credits

This GCU degree is included in the Air University Associate Baccalaureate Cooperative (AU-ABC) partnership which offers baccalaureate degree opportunities to Community College of the Air Force graduates.

Bachelor of Science in Applied Business Information Systems

Grand Canyon University's Bachelor of Science in Applied Business Information Systems will examine the fundamentals of business information systems and technology, including programming, principles of database management, networking, IT project management, and ethical considerations related to IT governance.

Degree Requirements

Total General Education	34-40 credits
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Total Applied Business Information Systems Major	52 credits
Total Electives	28-34 credits
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Total Bachelor of Science in Applied Business Information Systems Program Credits	120 credits

Applied Business Information Systems Major

CST-111	Introduction to Computer Science and Information Technology Lecture	4 credits
ITT-116	Platforms and Network Technologies	4 credits
ITT-121	System Administration and Maintenance	4 credits
BUS-352	Business Statistics	4 credits
BIT-210	Object-Oriented Programming for Business	4 credits
SYM-400	Introduction to Database Structures	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
BIT-310	Information Systems Design and Development	4 credits
BIT-415	IT Project Management	4 credits
BIT-417^Δ	IT Governance and Ethics	4 credits
MGT-455	Production/Operations Management	4 credits
BIT-460	Enterprise Systems Integration	4 credits
BIT-470^Δ	Strategic Information Systems Management	4 credits

Applied Business Information Systems Major 52 credits

This GCU degree is included in the Air University Associate Baccalaureate Cooperative (AU-ABC) partnership which offers baccalaureate degree opportunities to Community College of the Air Force graduates.

Bachelor of Science in Applied Entrepreneurship

The Bachelor of Science in Applied Entrepreneurship program addresses the areas of innovation, entrepreneurial spirit, and business skills in order to develop the global citizens, critical thinkers, effective communicators, and responsible leaders required in today's global economy. The program is built on the principles of personal integrity, values, and innovation. It provides students with the personal and business skills to think analytically, ask the right questions, solve problems, and function as entrepreneurs in their own business or intrapreneurs in larger companies.

Degree Requirements

Total General Education	34-40 credits
Total Entrepreneurial Studies Major	36 credits
Total Electives	44-50 credits
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Total Bachelor of Science in Applied Entrepreneurship	120 credits

Applied Entrepreneurship Major

MKT-315	Introduction to Marketing	4 credits
ENT-320	Public Relations and Networking Skills	4 credits
BUS-317	Financial Decision Making	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

MGT-420	Organizational Behavior and Management	4 credits
ENT-436	Entrepreneurship and Innovation	4 credits
ENT-446	Business Execution	4 credits
MGT-440	Project Management	4 credits
ENT-420	New Venture Financing	4 credits
BUS-470	Applied Business Project	4 credits
Applied Entrepreneurship Major		36 credits

Bachelor of Science in Applied Marketing and Advertising

Bachelor of Science in Applied Marketing and Advertising program prepares students to compete for entry-level management and advertising positions in corporate marketing, digital marketing communications, and advertising for products and services markets. The program emphasizes marketing, advertising, and digital marketing strategies and tactics. Students learn how to make data-driven marketing and advertising decisions in global business environments.

Degree Requirements

Total General Education	34-40 credits
Total Applied Marketing and Advertising Major	40 credits
Total Electives	40-46 credits
Total Bachelor of Science in Applied Marketing and Advertising	120 credits

Applied Marketing and Advertising Major

MKT-315	Introduction to Marketing	4 credits
MKT-345	Buyer and Consumer Behavior	4 credits
BUS-317	Financial Decision Making	4 credits
MKT-415	Promotion and Advertising	4 credits
MGT-420[†]	Organizational Behavior and Management	4 credits
ENT-436	Entrepreneurship and Innovation	4 credits
MKT-450	Marketing Management	4 credits
MGT-440	Project Management	4 credits
MKT-462	Digital Marketing and Advertising	4 credits
BUS-470	Applied Business Project	4 credits
Applied Marketing and Advertising Major		40 credits

Bachelor of Science in Business Administration

Grand Canyon University's Bachelor of Science in Business Administration program prepares students to compete for entry level management positions in business through coursework that addresses small business management and development, entrepreneurship, and project management.

Degree Requirements

Total General Education	34-40 credits
Total Business Administration Major	60 credits
Total Electives	20-26 credits
Total Bachelor of Science in Business Administration	120 credits

Business Administration Major

BIT-200[‡]	Introduction to Computer Technology	4 credits
ACC-250	Financial Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
ACC-260	Management Accounting	4 credits
BUS-340^Δ	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-361	Microeconomics	4 credits
BUS-390	Global Business	4 credits
ECN-362	Macroeconomics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
FIN-450	Intermediate Finance	4 credits
ACC-486	Financial Statement Analysis	4 credits
MGT-420[†]	Organizational Behavior and Management	4 credits
MGT-455	Production/Operations Management	4 credits
BUS-485^{†ΔΩ}	Strategic Management	4 credits
Business Administration Major		60 credits

Bachelor of Science in Business Analytics

Grand Canyon University's Bachelor of Science in Business Analytics program prepares students for career options that include business analyst, business analytics analyst, business intelligence analyst, data analyst, business analytics manager, and business intelligence manager. Students examine foundational aspects in business, including marketing, accounting, finance, economics, and management. Within the context of business disciplines, students address core areas of business analytics, including data visualization, data mining, and predictive and prescriptive models. Project management and information governance and ethics are also explored. Graduates are prepared to extract, analyze, and interpret data to help enable decision making within data-driven business environments.

Degree Requirements

Total General Education	34-40 credits
Total Business Analytics Major	68 credits
Total Electives	12-18 credits
Total Bachelor of Science in Business Analytics	120 credits

Business Analytics Major

BIT-205	Introduction to Computer Technology and Analytics	4 credits
ACC-240	Fundamentals of Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-352	Business Statistics	4 credits
ECN-351	Essentials of Economics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
SYM-400	Introduction to Database Structures	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
BIT-430	Introduction to Business Analytics	4 credits
BIT-445	Data Mining	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BIT-415[‡]	IT Project Management	4 credits
BIT-417[‡]	IT Governance and Ethics	4 credits
BIT-435	Advanced Business Analytics	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-455	Production/Operations Management	4 credits
BIT-455	Current Topics in Business Analytics	4 credits
BUS-485^Ω	Strategic Management	4 credits
Business Analytics Major		68 credits

Bachelor of Science in Business Information Systems

Grand Canyon University's Bachelor of Science in Business Information Systems combines a solid business foundation with the technical skills necessary to compete for entry-level management positions in information systems and technology management. Business coursework will address functional area skills such as accounting, economics, statistics, finance, and marketing. Students will also examine the fundamentals of business information systems and technology, including programming, principles of database management, networking, IT project management, and ethical considerations related to IT governance. Innovation and entrepreneurship will be a key focus of the program.

Degree Requirements

Total General Education	34-40 credits
Total Business Information Systems Major	72 credits
Total Electives	8-14 credits
Total Bachelor of Science in Business Information Systems	120 credits

Business Information Systems Major

CST-111	Introduction to Computer Science and Information Technology	4 credits
ITT-116	Platforms and Network Technologies	4 credits
ITT-121	System Administration and Maintenance	4 credits
BIT-210	Object-Oriented Programming for Business	4 credits
ACC-240	Fundamentals of Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-352	Business Statistics	4 credits
ECN-351	Essentials of Economics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
SYM-400	Introduction to Database Structures	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
BIT-310	Information Systems Design and Development	4 credits
BIT-415	IT Project Management	4 credits
BIT-417^{Δ‡}	IT Governance and Ethics	4 credits
MGT-420[‡]	Organizational Behavior and Management	4 credits
MGT-455	Production/Operations Management	4 credits
BIT-460	Enterprise Systems Integration	4 credits

BIT-470^Δ	Strategic Information Systems Management	4 credits
Business Information Systems Major		72 credits

Bachelor of Science in Business Management

Grand Canyon University's Bachelor of Science in Business Management program addresses the areas of servant leadership, innovation, entrepreneurial spirit, and business skills in order to develop the global citizens, critical thinkers, effective communicators, and responsible leaders required in today's global economy. The program prepares students to compete for entry-level management positions in business through coursework that addresses the key functional areas of management, accounting, finance, marketing, operations, and human resources.

Degree Requirements

Total General Education	34-40 credits
Total Business Management Major	56 credits
Total Electives	24-30 credits
Total Bachelor of Science in Business Management	120 credits

Business Management Major

BIT-200[‡]	Introduction to Computer Technology	4 credits
ACC-240	Fundamentals of Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-340^Δ	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
MGT-325	Managing Business Communications and Change	4 credits
ECN-351	Essentials of Economics	4 credits
BUS-390	Global Business	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
MGT-420[‡]	Organizational Behavior and Management	4 credits
MGT-455	Productions/Operations Management	4 credits
MGT-410	Servant Leadership	4 credits
MGT-434	Human Resources	4 credits
BUS-485^{ΔΩ}	Strategic Management	4 credits
Business Management Major		56 credits

Bachelor of Science in Business for Secondary Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Science in Business for Secondary Education prepares students to become a junior high or high school business teacher. This program provides initial teacher licensure. The format and courses of this regionally accredited and Arizona State Board of Education approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. Teacher candidates must have access to a grade 6-12 classroom to complete the program and practicum assignments, which guide them through 85 hours of observational experiences. The final semester of this Secondary Education program includes a full-time, 15-week student teaching component. Candidates are

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

responsible for contacting their state department of education for licensure requirements and program approval.

Degree Requirements

Total General Education	34-40 credits
Total Business for Secondary Education Major	77 credits
Total Electives	0-6 credits
Total Bachelor of Science in Business for Secondary Education	120 credits
Total Practicum/Field Experience	80 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

SEC-201	Early Adolescent and Adolescent Psychology	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

ECN-361	Microeconomics	4 credits
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Business for Secondary Education Major

BIT-200	Introduction to Computer Technology	4 credits
ACC-240	Fundamentals of Accounting	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
POS-301	U.S. and Arizona Constitutions	2 credits
EDU-330^A	Social Justice for Educators	4 credits
FIN-210	Personal Finance	4 credits
BUS-340^A	Ethical and Legal Issues in Business	4 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
BUS-352	Business Statistics	4 credits
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
ESL-445N	Methods of Structured English Immersion for Secondary Education	3 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
ECN-362	Macroeconomics	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-435	Methods of Teaching Business in Middle and Secondary Schools	4 credits
MGT-420^f	Organizational Behavior and Management	4 credits
SEC-450	Data Driven Instructional Methods for Middle and Secondary Teachers	4 credits
BUS-485^{A,Ω}	Strategic Management	4 credits
SEC-490	Student Teaching for Secondary Education	8 credits

Business for Secondary Education Major	77 credits
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Bachelor of Science in Entrepreneurial Studies

Grand Canyon University's Bachelor of Science in Entrepreneurial Studies program addresses the areas of servant leadership, innovation, entrepreneurial spirit, and business skills in order to develop the global citizens, critical thinkers, effective communicators, and responsible leaders required in today's

global economy. The program is built on the principles of personal integrity, values, and innovation. It provides students with the personal and business skills to think analytically, ask the right questions, solve problems, and function as entrepreneurs in their own business or intrapreneurs in larger companies.

Degree Requirements

Total General Education	34-40 credits
Total Entrepreneurial Studies Major	60 credits
Total Electives	20-26 credits
Total Bachelor of Science in Entrepreneurial Studies	120 credits

Entrepreneurial Studies Major

BIT-200	Introduction to Computer Technology	4 credits
ACC-240	Fundamentals of Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-340^A	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-361	Microeconomics	4 credits
ECN-362	Macroeconomics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-455	Production/ Operations Management	4 credits
ENT-436	Entrepreneurship and Innovation	4 credits
ENT-320	Public Relations and Networking Skills	4 credits
ENT-446	Business Execution	4 credits
ENT-420	New Venture Financing	4 credits
BUS-485^{f,Δ,Ω}	Strategic Management	4 credits

Entrepreneurial Studies Major	60 credits
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Bachelor of Science in Finance

This degree prepares students to enter financial positions in corporations, financial institutions, brokerage firms, and government. Earning a degree in Finance enables students to identify the functions of financial markets and institutions and their integration on a global basis; understand the impact of changing interest rates; determine the value of stocks, bonds, and securities; analyze the appropriate measures of risk and return for various financial instruments; and understand the regulation of the financial industry.

Degree Requirements

Total General Education	34-40 credits
Total Entrepreneurial Studies Major	76 credits
Total Electives	4-10 credits
Total Bachelor of Science in Finance	120 credits

Entrepreneurial Studies Major

BIT-200^f	Introduction to Computer Technology	4 credits
ACC-250	Financial Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
MAT-251	Brief Calculus	4 credits

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

ACC-260	Management Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-361	Microeconomics	4 credits
ECN-362	Macroeconomics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
FIN-375	Introduction to Investments	4 credits
MGT-420^f	Organizational Behavior and Management	4 credits
FIN-450	Intermediate Finance	4 credits
FIN-431	Financial Risk Management and Insurance	4 credits
FIN-432	Real Estate	4 credits
FIN-451	Investments and Portfolio Management	4 credits
ECN-450	International Trade and Finance	4 credits
ECN-460	Economics of Money, Banking, and Financial Markets	4 credits
BUS-485^{f/ΔΩ}	Strategic Management	4 credits
Finance Major		76 credits

Bachelor of Science in Finance and Economics

Grand Canyon University's Bachelor of Science in Finance and Economics program addresses the fundamental concepts in Finance, Investment Management, and Micro, Macro and International Economics. Due to the combined nature of this degree, there is a specific focus on financial markets and monetary economics. The program prepares students to compete for entry-level positions in financial services, corporate finance, banking, and insurance.

Degree Requirements

Total General Education	34-40 credits
Total Finance and Economics Major	60 credits
Total Electives	20-26 credits
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Total Bachelor of Science in Finance and Economics Credits	120 credits

Finance and Economics Major

BIT-200	Introduction to Computer Technology	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-340^Δ	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-361	Microeconomics	4 credits
ECN-362	Macroeconomics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
MGT-420	Organizational Behavior and Management	4 credits
FIN-450	Intermediate Finance	4 credits
FIN-375	Introduction to Investments	4 credits

ECN-460	Economics of Money, Banking, and Financial Markets	4 credits
ECN-450	International Trade and Finance	4 credits
BUS-485^{f/ΔΩ}	Strategic Management	4 credits
<hr/>		60 credits
Finance and Economics Major		60 credits

Bachelor of Science in Homeland Security and Emergency Management

The Bachelor of Science in Homeland Security and Emergency Management program offers students an understanding of the fundamentals of emergency management, while providing an interdisciplinary course of study in the business and leadership skills and practices related to emergency planning and management. The program highlights the application of strategies and techniques related to protection, prevention, mitigation, response, and recovery; the utilization of communication skills at the personal, professional, and public level; and the development of professional skills and knowledge in the fields of Homeland Security and emergency management.

Degree Requirements

Total General Education	34-40 credits
Total Homeland Security and Emergency Management Major	36 credits
Total Electives	44-50 credits
<hr/>	
Total Bachelor of Science in Finance and Economics Credits	120 credits

Homeland Security and Emergency Management Major

EMM-301	Introduction to Homeland Security and Emergency Management	4 credits
MGT-420	Organizational Behavior and Management	4 credits
EMM-306^Δ	Protection and Security	4 credits
EMM-311	Hazard Mitigation Planning	4 credits
EMM-400	Terrorism Prevention	4 credits
EMM-412	Emergency Response Operations and Techniques	4 credits
EMM-450	Disaster Recovery	4 credits
MGT-440	Project Management	4 credits
EMM-485^{ΔΩ}	Emergency Management Capstone	4 credits
<hr/>		36 credits
Homeland Security and Emergency Management Major		36 credits

Bachelor of Science in Hospitality Management

Grand Canyon University's Bachelor of Science in Hospitality Management prepares students to compete for entry-level positions in the hospitality industry. Core business courses incorporate servant leadership, innovation, and entrepreneurial spirit, and address the key functional areas of management, accounting, finance, marketing, and operations. The major courses offer a broad-based curriculum specific to hospitality management, including hotel and restaurant management, event planning, facilities management, and human resources in the hospitality industry.

Degree Requirements

Total General Education	34-40 credits
Total Hospitality Management Major	68 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

Total Electives	12-18 credits
Total Bachelor of Science in Hospitality Management Credits	120 credits
Hospitality Management Major	
BIT-200	Introduction to Computer Technology 4 credits
HOS-200	Introduction to Hospitality 4 credits
ACC-240	Fundamentals of Accounting 4 credits
MKT-315	Introduction to Marketing 4 credits
BUS-340 ^{Af}	Ethical and Legal Issues in Business 4 credits
BUS-352	Business Statistics 4 credits
ECN-351	Essentials of Economics 4 credits
FIN-350	Fundamentals of Business Finance 4 credits
MGT-420	Organizational Behavior and Management 4 credits
MGT-434	Human Resources 4 credits
ENT-435	Intrapreneurship and Innovation 4 credits
HOS-440	Hotel and Lodging Management and Operations I 4 credits
HOS-450	Hotel and Lodging Management and Operations II 4 credits
HOS-460	Food and Beverage Service Management and Operations 4 credits
HOS-465	Revenue Generation for Hospitality 4 credits
HOS-470	Hospitality Services Marketing 4 credits
BUS-485 ^{A Ω}	Strategic Management 4 credits
Hospitality Management Major	68 credits

Bachelor of Science in Marketing and Advertising

Grand Canyon University's Bachelor of Science in Marketing and Advertising program prepares students to compete for entry-level management and advertising positions in corporate marketing, digital marketing communications, and advertising for global products and services markets. The program emphasizes marketing, advertising, and communications strategies and tactics. Students learn how to make data-driven marketing and advertising decisions in global business environments.

Degree Requirements

Total General Education	34-40 credits
Total Marketing Major	60 credits
Total Electives	20-26 credits
Total Bachelor of Science in Marketing and Advertising	120 credits

Marketing and Advertising Major

BIT-200 ^f	Introduction to Computer Technology	4 credits
ACC-240	Fundamentals of Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-340 ^A	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-351	Essentials of Economics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits

MKT-345	Buyer and Consumer Behavior	4 credits
MGT-420 ^f	Organizational Behavior and Management	4 credits
MKT-415	Promotion and Advertising	4 credits
MKT-445	Marketing Research and Reporting	4 credits
MGT-455	Production/ Operations Management	4 credits
MKT-462	Digital Marketing and Advertising	4 credits
MKT-450	Marketing Management	4 credits
BUS-485 ^{AΩ}	Strategic Management	4 credits
Marketing and Advertising Major		60 credits

Bachelor of Science in Sports Management

Grand Canyon University's Bachelor of Science in Sports Management program is uniquely positioned within the Colangelo College of Business. The business-based curriculum prepares students for an array of potential career path opportunities in the multibillion dollar sports and entertainment industry. Coursework emphasizes key skills specific to sports business, including sales, marketing, revenue generation, and event operations.

Degree Requirements

Total General Education	34-40 credits
Total Sports Management Major	56 credits
Total Electives	24-30 credits
Total Bachelor of Science in Sports Management	120 credits

Sports Management Major

BIT-200	Introduction to Computer Technology	4 credits
ACC-240	Fundamentals of Accounting	4 credits
BUS-232	Introduction to Sports Management	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-340 ^A	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-351	Essentials of Economics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-455	Production/ Operations Management	4 credits
MKT-373	Sports Marketing	4 credits
BUS-372	Sports Event Planning	4 credits
MKT-465	Sports Retail Management and Sales	4 credits
BUS-485 ^{fAΩ}	Strategic Management	4 credits
Sports Management Major		56 credits

Bachelor of Science in Supply Chain and Logistics Management

Grand Canyon University's Bachelor of Science in Supply Chain and Logistics Management program addresses servant leadership, innovation, entrepreneurial spirit, and business skills in order to develop the global citizens, critical thinkers, effective communicators, and responsible leaders required in today's global economy. The program prepares students to compete for

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

entry-level positions that focus on both optimizing organizational effectiveness and managing/analyzing global supply chains. In addition to foundational courses in business, students are required to complete courses addressing lean operations, business process management (BPM), and enterprise optimization. Other courses focus on procurement, logistics, and systems aspects of global supply chains. Coverage of topics also encompasses knowledge areas addressed by Lean Six Sigma Green Belt certification.

Degree Requirements

Total General Education	34-40 credits
Total Marketing Major	72 credits
Total Electives	8-14 credits
Total Bachelor of Science in Supply Chain and Logistics Management	120 credits

Supply Chain and Logistics Management Major

BIT-200[†]	Introduction to Computer Technology	4 credits
ACC-250	Financial Accounting	4 credits
MKT-315	Introduction to Marketing	4 credits
ACC-260	Management Accounting	4 credits
BUS-340[†]	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
ECN-361	Microeconomics	4 credits
BUS-390	Global Business	4 credits
ECN-362	Macroeconomics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
SCM-400^Δ	Global Supply Chain Operations	4 credits
MGT-420[†]	Organizational Behavior and Management	4 credits
SCM-410	Lean and Quality Management	4 credits
SCM-450	Procurement and Global Supply Chain Management	4 credits
SCM-452	Global Logistics and Transportation Management	4 credits
SCM-454	Manufacturing Planning and Control Systems	4 credits
SCM-460	Supply Chain Modeling and Analysis	4 credits
BUS-485^{ΔΩ†}	Strategic Management	4 credits
Supply Chain and Logistics Management Major		72 credits

Bridge to Master of Science in Accounting

This Bridge to the Master of Science in Accounting program enables students who have earned a bachelor's degree in business disciplines other than accounting to pursue the Master of Science in Accounting degree. The program includes the undergraduate coursework in accounting and management necessary to prepare students for the rigor of the Master's degree. The Bridge to Master of Science in Accounting prepares graduates for a career in the field of public accounting. The degree is designed to enhance theoretical and practical accounting skills for practitioners, researchers and educators. Graduates may qualify to sit for the Uniform Certified Public Accountant (CPA) exam in most states.

Degree Requirements

ACC-250	Financial Accounting	4 credits
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ACC-350	Managerial Accounting	4 credits
ACC-370	Intermediate Accounting I	4 credits
ACC-371	Intermediate Accounting II	4 credits
ACC-460	Taxation	4 credits
ACC-491	Auditing	4 credits
Bridge to Master of Science in Accounting		24 credits

Bridge to Master of Science in Information Technology Management

This Bridge to Master of Science in Information Technology Management contains four undergraduate courses that must be completed by an MS in Information Technology Management candidate who has a bachelors or masters degree not related to Information Technology. The bridge prepares a Master of Science in Information Technology Management candidate with basic knowledge related to the technology industry.

Degree Requirements

CST-111	Introduction to Computer Science and Information Technology	4 credits
ITT-116	Platforms and Network Technologies	4 credits
BIT-310	Information Systems Design and Development	4 credits
SYM-400	Introduction to Database Structures	4 credits
Bridge to Master of Science in Information Technology Management		16 credits

School of Business Studies: Dual-Degree Programs

The Colangelo College of Business offers two dual-degree graduate programs: the Master of Business Administration and Master of Science in Leadership, as well as the Master of Business Administration and Master of Science-Nursing with an Emphasis in Nursing Leadership in Health Care Systems.

Information concerning the Master of Science in Nursing: Nursing Leadership in Health Care Systems program is located in the College of Nursing and Health Care Professions section of the Academic Catalog.

Master of Business Administration and Master of Science in Leadership

Grand Canyon University's Master of Business Administration and Master of Science in Leadership (MBA/MSL) dual degree program is designed for students who desire to pursue a traditional MBA degree and a leadership degree concurrently. Graduates will be able to integrate a conceptual foundation for an executive leadership role that emphasizes the immediate application of ethical and practical leadership skills. They will be able to identify patterns, connections, and relationships across business practices within organizational systems in order to address organizational performance challenges. Students will combine their business management and leadership skills to successfully analyze and evaluate structures, processes, and systems within changing organizational environments in order to build highly effective organizations.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
LDR-600	Leadership Styles and Development	4 credits
LDR-630	Servant Leadership	4 credits
LDR-640	Leadership and Innovation	4 credits
LDR-612	Coaching, Mentoring, and Leadership Development	4 credits
LDR-615	Organizational Development and Change	4 credits

Master of Business Administration and Master of Science in Leadership 66 credits

School of Business Studies: Graduate Programs

The Colangelo College of Business offers the Master of Business Administration (MBA) program provides emphases in Accounting, Finance, Health Systems Management, Leadership, Marketing, and Strategic Human Resource Management. The Master of Business Administration (MBA) degree is designed for working professionals who desire to complete their graduate degree without interrupting their professional careers. The program consists of 39-51 graduate credit hours. It affords students the opportunity to develop cross-functional business-management skills, preparing business practitioners for advanced management and executive positions. Students have the option of completing two emphasis areas as part of their MBA degree. Students with the necessary academic or professional background who complete two courses per semester on a trimester basis will be able to complete the MBA program in just over two years. The Colangelo College of Business MBA Program is fully accredited by the Accreditation Council of Business Schools and Programs (ACBSP).

The Master of Science in Accounting program prepares students to sit for the CPA exam and provides opportunities for current CPAs and accountants to advance their skills in theory, practice, and research.

Master of Business Administration

The Master of Business Administration program is designed for working professionals who desire to complete a program of study that allows focus across technical, human, and conceptual skills that encompass the functional areas of business. The core courses in the MBA program allow the student to develop strong

foundations across accounting, economics, finance, information systems, management, marketing and quantitative methods provided in the core courses. Courses in the critical areas of leadership and human resources management will provide the student the broad management perspective as well as the analytical and interpersonal skills needed to succeed in global business.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits

Master of Business Administration 46 credits

Master of Business Administration with an Emphasis in Accounting

Grand Canyon University's Master of Business Administration with an Emphasis in Accounting program provides students with the capacity for transformational leadership through the application of business practices. The program highlights the impact of the global economy on organizational decision making, planning, and sourcing of organizational resources. Students draw upon interpersonal skills to address each practice, as well as to comprehend the influence that diverse cultures have on it. The use of telecommunications, emerging technologies, and ecommerce applications combine with essential business principles that encompass finance, accounting, economics, marketing, and management, providing students with the capacity to lead and manage business enterprises both effectively and ethically. The program encourages students to be informed critical thinkers and decision makers through active research and the application of quantitative methods that transform raw data into useful information. The program prepares students to compete for advanced management positions in corporate accounting through emphasis coursework that addresses the areas of financial accounting and reporting, management accounting and reporting, and specialized accounting and emerging topics.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
ACC-660	Advanced Financial Accounting	4 credits
ACC-670	Advanced Financial Statement Analysis	4 credits

Master of Business Administration with an Emphasis in Accounting 54 credits

Master of Business Administration with an Emphasis in Cybersecurity

The Master of Business Administration with an Emphasis in Cyber Security program provides the foundation of an MBA, including emphasis on accounting, finance, organizational leadership, management, marketing, and strategic planning, as well as two courses in cyber security. These two courses address cyber security concepts and methodologies specific to enterprise security design such as the NIST Cybersecurity Framework, enterprise governance and compliance, cyber-attacks and countermeasures, and the confidentiality, integrity, and availability of information. Courses utilize case studies and current issues in the field related to a variety of industries and perspectives on cyber security.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
CYB-505	Cyber Warfare and Applications	4 credits
CYB-515	Enterprise Security Infrastructure Design	4 credits

Master of Business Administration with an Emphasis in Cybersecurity 54 credits

Master of Business Administration with an Emphasis in Finance

Grand Canyon University's Master of Business Administration with an Emphasis in Finance program provides students with the capacity for transformational leadership through the application of business practices. The program highlights the impact of the global economy on organizational decision making, planning,

and sourcing of organizational resources. Students draw upon interpersonal skills to address each practice, as well as to comprehend the influence that diverse cultures have on it. The use of telecommunications, emerging technologies, and e-commerce applications combine with essential business principles that encompass finance, accounting, economics, marketing, and management, providing students with the capacity to lead and manage business enterprises both effectively and ethically. The program encourages students to be informed critical thinkers and decision makers through active research and the application of quantitative methods that transform raw data into useful information. The program provides students with the skills necessary to demonstrate proficiency in corporate financial management and investments in order to ensure corporate solvency, profitability, and efficiency.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
FIN-655	Investments	4 credits
FIN-660	Advanced Financial Strategies	4 credits

Master of Business Administration with an Emphasis in Finance 54 credits

Master of Business Administration with an Emphasis in Health Systems Management

Grand Canyon University's Master of Business Administration with an Emphasis in Health Systems Management program provides students with the capacity for transformational leadership through the application of business practices. The program highlights the impact of the global economy on organizational decision making, planning, and sourcing of organizational resources. Students draw upon interpersonal skills to address each practice, as well as to comprehend the influence that diverse cultures have on it. The use of telecommunications, emerging technologies, and e-commerce applications combine with essential business principles that encompass finance, accounting, economics, marketing, and management, providing students with the capacity to lead and manage business enterprises both effectively and ethically. The program encourages students to be informed critical thinkers and decision makers through active research and the application of quantitative methods that transform raw data into useful information. The program prepares students to compete for critical leadership roles in current and future organizations through coursework that addresses leadership theory, problem solving, organizational

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

leadership, self-leadership, and highly effective teams. The program prepares students for advanced management or senior administration positions in the health care industry through coursework that addresses the legal and ethical concerns in health care and health care policies and economics.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
HLT-520	Legal and Ethical Principles in Health Care	4 credits
HCA-530	Health Care Policies and Economics	4 credits
Master of Business Administration with an Emphasis in Health Systems Management		54 credits

Master of Business Administration with an Emphasis in Leadership

Grand Canyon University's Master of Business Administration with an Emphasis in Leadership program provides students with the capacity for transformational leadership through the application of business practices. The program highlights the impact of the global economy on organizational decision making, planning, and sourcing of organizational resources. Students draw upon interpersonal skills to address each practice, as well as to comprehend the influence that diverse cultures have on it. The use of telecommunications, emerging technologies, and e-commerce applications combine with essential business principles that encompass finance, accounting, economics, marketing, and management, providing students with the capacity to lead and manage business enterprises both effectively and ethically. The program encourages students to be informed critical thinkers and decision makers through active research and the application of quantitative methods that transform raw data into useful information. The program prepares students to compete for critical leadership roles in current and future organizations through coursework that addresses leadership theory, problem solving, organizational leadership, self-leadership, and highly effective teams.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits

SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
LDR-600	Leadership Styles and Development	4 credits
LDR-615	Organizational Development and Change	4 credits

Master of Business Administration with an Emphasis in Leadership	54 credits
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Master of Business Administration with an Emphasis in Marketing

Grand Canyon University's Master of Business Administration with an Emphasis Marketing provides students with the capacity for transformational leadership through the application of business practices. The program highlights the impact of the global economy on organizational decision making, planning, and sourcing of organizational resources. Students draw upon interpersonal skills to address each practice, as well as to comprehend the influence that diverse cultures have on it. The use of telecommunications, emerging technologies, and e-commerce applications combine with essential business principles that encompass finance, accounting, economics, marketing, and management, providing students with the capacity to lead and manage business enterprises both effectively and ethically. The program encourages students to be informed critical thinkers and decision makers through active research and the application of quantitative methods that transform raw data into useful information. The program prepares students to compete for advanced management positions in corporate marketing or brand management through emphasis coursework that addresses the areas of services marketing, marketing management, and technology as tool.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
MKT-650	Services Marketing	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

MKT-660	International Marketing	4 credits
Master of Business Administration with an Emphasis in Marketing		54 credits

Master of Business Administration with an Emphasis in Project Management

The Master of Business Administration with an Emphasis in Project Management degree prepares students for leadership positions specifically in areas of project management. The program is designed for working professionals who desire to complete a program of study that allows students to focus across the technical, human, and conceptual skills that encompass the functional areas of business. The core courses in the MBA program allow the student to develop strong foundations across accounting, economics, finance, information systems, management, marketing, and quantitative methods provided in the core courses. Courses in the critical areas of leadership and human resources management will provide the student the broad management perspective as well as the analytical and interpersonal skills needed to succeed in global business. The emphasis courses in project management are based upon the Project Management Institute's (PMI) project management body of knowledge (PMBOK), and include coverage of the PMBOK topics covered in the required Certified Associate in Project Management (CAPM), Project Management Professional (PMP), and Agile Certified Practitioner (ACP) exams.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
MGT-640	Fundamentals of Project Management	4 credits
MGT-641	Agile Project Management	4 credits
Master of Business Administration with an Emphasis in Project Management		54 credits

Master of Business Administration with an Emphasis in Sports Business

The Grand Canyon University MBA with Sports Business emphasis is specifically designed for ambitious students who seek to further develop their business knowledge and skills in order to maximize career opportunities within the multi-billion dollar global sports business industry. Graduates receive an MBA diploma from the GCU Colangelo College of Business that is intended for relevance and utility in the modern sports business world. The degree program is immersed with Christian-based

business values and entrepreneurship, which are foundations of the GCU experience.

The MBA with Sports Business emphasis examines a broad range of business topics and principles with specific application to some of the sports industry's major job category areas such as sports sales and marketing, entrepreneurship, athletic administration, media, as well as trades and services. While giving a healthy respect to the notable pioneers of the industry, the curriculum primarily explores the current trends and future strategies that seek to help sports organizations remain competitive in a global marketplace. The program highlights the impact of the global economy on organizational decision making, planning, and sourcing of administrative resources. Students draw upon interpersonal skills to address each practice, as well as to comprehend the influence diverse cultures have on it. Coursework addresses how the use of emerging digital, social, and e-commerce technologies combine with essential business principles that encompass finance, accounting, economics, marketing, and management. Graduates from the GCU Colangelo College of Business with an MBA Sports Business emphasis are provided with the capacity to lead and manage sports business enterprises both effectively and ethically.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
BUS-635	Sports Business Revenue Generation	4 credits
BUS-655	Sports Business Analytics	4 credits
Master of Business Administration with an Emphasis in Sports Business		54 credits

Master of Business Administration with an Emphasis in Strategic Human Resource Management

The Master of Business Administration with an Emphasis in Strategic Human Resource Management covers the Society for Human Resource Management's critical competencies. By aligning this program to the human resource competencies identified by the Society of Human Resource Management (SHRM), students will be well-prepared for careers as senior human resources specialists or as general managers with strong strategic HR acumen.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

MGT-605	Leadership and Organizations	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits
ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
HRM-640	Designing HR for Competitive Advantage	4 credits
Master of Business Administration with an Emphasis in Strategic Human Resource Management		54 credits

Master of Business Administration & Master of Science in Nursing: Nursing Leadership in Health Care Systems

The Master of Business Administration with an Emphasis in The Master of Business Administration and Master of Science in Nursing with an Emphasis in Nursing Leadership in Health Care Systems dual-degree program is designed to afford students the opportunity to develop cross functional business management skills, preparing business practitioners for advanced management and executive positions combined with specialized study in leadership theory and application.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
NUR-513	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550	Translational Research and Population Health Management	4 credits
NUR-590	Evidence Based-Practic Project	4 credits
LDR-615	Organizational Development and Change	4 credits
NUR-621	Principles of Health Care Financial Management	4 credits
NUR-630	Performance Improvement and Quality in Health Care	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
NUR-674	Leadership in Health Care Systems Practicum	4 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
ECN-601	Economics	4 credits
BUS-660	Quantitative Methods	4 credits
MKT-607	Marketing Management	4 credits

ACC-650	Managerial Accounting	4 credits
MGT-655	Operations Management	4 credits
FIN-650	Managerial Finance	4 credits
MGT-660	Strategic Management	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
HRM-640	Designing HR for Competitive Advantage	4 credits
Master of Business Administration with an Emphasis in Strategic Human Resource Management		54 credits

Master of Science in Accounting

The Master of Science in Accounting is an accelerated program that enables students who have previously earned a Bachelor's degree in Accounting to complete a Master of Science in Accounting Program in approximately one year. This type of program is commonly known as a "4+1" program because students can complete a bachelor's degree in accounting in four years, and a Master's degree in accounting in approximately one additional year. The Master of Science in Accounting program prepares graduates for a career in the field of public accounting. The degree is designed to enhance theoretical and practical accounting skills for practitioners, researchers and educators. Graduates may qualify to sit for the Uniform Certified Public Accountant (CPA) exam in most states.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
ACC-616	Financial Research and Compliance	4 credits
ACC-622	Accounting Information Systems	4 credits
ACC-653	Advanced Managerial and Cost Accounting	4 credits
BUS-623	Business Law and Ethics for Accounting	4 credits
ACC-667	Advanced Audit	4 credits
ACC-668	Advanced Taxation	4 credits
ACC-690^Ω	Capstone I	4 credits
ACC-691^Ω	Capstone II	4 credits
Master of Science in Accounting		34 credits

Master of Science in Information Assurance & Cybersecurity

The Master of Science in Information Assurance and Cybersecurity will prepare students to become a global cutting-edge managerial expert. Featured areas of study includes laws/compliance, governance, leadership/management, and prevention/recovery. Coursework will cover topics such as information security, risk management, compliance, governance, consumer theft, corporate/government data breaches, cybercrime, and cyberterrorism.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
CYB-505	Cyber Warfare and Applications	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

CYB-515	Enterprise Security Infrastructure Design	4 credits
CYB-535	Policy Management for Security Solutions	4 credits
MIS-602	Innovation in Information Technology and Data Management	4 credits
LDR-604	IT Management and Leadership	4 credits
CYB-630	Enterprise Cyber Law and Compliance Strategies	4 credits
MIS-657	Information Security and Risk Management	4 credits
LDR-665^Ω	Cybersecurity Leadership Capstone	4 credits
Master of Science in Information Assurance & Cybersecurity		34 credits

Master of Science in Organizational Leadership and Entrepreneurship

The Master of Science in Organizational Leadership and Entrepreneurship is designed to provide business leaders, entrepreneurs, and entrepreneurs with knowledge and skills to focus an enterprise on organic growth through innovation, the commercialization of resultant innovation, and the subsequent sales and marketing of products and services developed.

A broad range of topics related to innovation, marketing and sales will be explored, and the proven principles of servant leadership and values-based management are infused throughout the program to prepare graduates to develop and nurture an entrepreneurial spirit within their organizations. Students will discuss the formulation and execution of growth strategies within organizations and how to stay competitive in a global marketplace.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
OGS-600	Business Model Development	4 credits
OGS-605	Customer Segmentation and Analysis	4 credits
OGS-610	Finance and Revenue	4 credits
OGS-615	Marketing and Sales Management	4 credits
OGS-620	Funding Organizational Growth	4 credits
OGS-625	Infrastructure and Operations	4 credits
OGS-630	Sustaining Organizational Growth	4 credits
OGS-635	Launching Growth and Sales Models	4 credits
Master of Science in Organizational Growth and Sales		46 credits

Graduate Certificate of Completion in Project Management

Grand Canyon University's Graduate Certificate of Completion in Project Management provides graduates with foundational knowledge and skills necessary to serve as a project manager. The coursework includes concepts related to traditional & agile project management, leadership, and finance fundamentals.

Courses in the program align with key aspects of PMI®'s A Guide to the Project Management Body of Knowledge (PMBOK®).

Degree Requirements

LDR-604	IT Management and Leadership	4 credits
LDR-615	Organizational Development and Change	4 credits
MGT-640	Fundamentals of Project Management	4 credits
MGT-641	Agile Project Management	4 credits
Graduate Certificate of Completion in Project Management		16 credits

School of Professional Studies

For working adults seeking an undergraduate degree, the School of Professional Studies offers the following undergraduate degree programs:

- Bachelor of Science in Applied Management

The School of Professional Studies also offers the following graduate-level degree programs:

- Master of Public Administration with Emphases in
 - Government and Policy
 - Health Care Management
- Master of Science in Leadership
- Master of Science in Leadership with an Emphasis in Homeland Security and Emergency Management

In addition to its degree offerings, the Colangelo College of Business offers students the opportunity to be a member of Alpha Sigma Lambda. Alphas Sigma Lambda is a national honor society open to both graduate and undergraduate students by invitation only, based primarily upon scholastic achievement.

School of Professional Studies: Undergraduate Programs

Bachelor of Science in Applied Management

Grand Canyon University's Bachelor of Science in Applied Management program is designed to provide working professionals skills and concepts that will be immediately applicable to their organizations. The program emphasizes organizational behavior, real-world management, leadership and supervision, marketing concepts, managerial accounting, and effective oral and written business communications required of business managers.

Degree Requirements

Total General Education	34-40 credits
Total Applied Management Major	36 credits
Total Electives	44-50 credits
Total Bachelor of Science in Applied Management Credits	120 credits

Applied Management Major

MKT-315	Introduction to Marketing	4 credits
MGT-325	Managing Business Communications and Change	4 credits
BUS-317	Financial Decision Making	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

MGT-410	Servant Leadership	4 credits
BUS-390	Global Business	4 credits
ENT-436^Δ	Entrepreneurship and Innovation	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-440	Project Management	

Applied Business Project must be the last course taken in this program.

BUS-470^{ΔΔ}	Applied Business Project	4 credits
Applied Management Major		36 credits

This GCU degree is included in the Air University Associate Baccalaureate Cooperative (AU-ABC) partnership which offers baccalaureate degree opportunities to Community College of the Air Force graduates.

School of Professional Studies: Graduate Programs

Master of Science in Business Analytics

The Master of Science in Business Analytics program will prepare students for a career in business analytics with a focus on using big data to help organizations make tactical and strategic decisions. Students study topics related to databases, data mining, descriptive analytics, data visualization, predictive analytics, prescriptive analytics, and ethical aspects of using data. Emphasis is on hands-on application using industry tools.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
SYM-506	Applied Business Probability and Statistics	4 credits
MIS-600	Applied Analytics for Business	4 credits
MIS-605	Introduction to Databases	4 credits
MIS-610	Intermediate Database Applications	4 credits
MIS-650	Performing Analytics Using a Statistical Language	4 credits
MIS-655	Data Mining	4 credits
MIS-660	Descriptive and Predictive Analytics	4 credits
MIS-665	Prescriptive Analytics and Advanced Topics	4 credits
MIS-690^Ω	Applied Capstone Project	4 credits
Master of Science in Business Analytics		38 credits

Master of Science in Information Technology Management

The Master of Science in Information Technology Management is designed to prepare students for leadership positions in information technology. The program consists of a unique blend of technology and management courses that provide students with the business and technology knowledge required to manage the information technology function across a wide range of industries. The degree covers a broad range of topics in the functional areas of business, such as accounting, finance, organizational behavior, and strategic management, as well as technology topics such as network administration, information security, technology innovation, and IT project management.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MIS-602	Innovation in Information Technology and Data Management	4 credits
BUS-600	Financial Fundamentals for Managers	4 credits
LDR-604	IT Management and Leadership	4 credits
MIS-640	Financial Decision Making	4 credits
MIS-652	Business Process Analysis	4 credits
MGT-665	IT Project Management	4 credits
MIS-657	Information Security and Risk Management	4 credits
MGT-670	Strategic Management of Information Technology Capstone	4 credits

Master of Science in Information Technology Management		34 credits
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Master of Science in Leadership

Developed for individuals interested in the leadership skills involved in management, Grand Canyon University offers a Master of Science in Leadership. This leadership degree provides students with the skills necessary to develop professionally and gain self-confidence in their own leadership styles. Students learn to integrate a conceptual foundation for an executive leadership role that emphasizes the immediate application of ethical and practical leadership skills. This program also focuses on the ability to create, communicate and influence decisions using critical thinking and problem-solving skills that are grounded in theory and research. Students gain an understanding of key audiences and learn how to effectively connect and communicate with important stakeholders.

Coursework in the Master of Science in Leadership degree explores the nature of business leadership models and theories, examines these models through a broad variety of perspectives, and provides a description and analysis of these approaches to leadership. Special attention is given to how the models can improve leadership in real-world organizations. Students will also study tactics for becoming an empowering leader. Organizational politics, influence tactics, and succession planning are also topics of discussion.

Servant leadership is another area of focus in this leadership degree. Students study the biblical basis of servant leadership and examine how servant leaders can play a significant role in leading organizations that are committed to empowering the people and communities they serve. They have the opportunity to participate in an organization or community-based leadership project and create a professional portfolio.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
LDR-600	Leadership Styles and Development	4 credits
LDR-630	Servant Leadership	4 credits
LDR-640	Leadership and Innovation	4 credits
LDR-612	Coaching, Mentoring, and Leadership Development	4 credits
LDR-615	Organizational Development and Change	4 credits

LDR-620	Leading as a General Manager	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
LDR-655	Leadership Capstone	4 credits
Master of Science in Leadership		38 credits

Master of Science in Leadership with an Emphasis in Homeland Security and Emergency Management

The Master of Science in Leadership with an emphasis in Homeland Security and Emergency Management program offers you a degree in leadership while providing advanced skills and practices in analysis and emergency planning and management. The program highlights the application of disaster response and recovery and in-depth analysis of the strategic, human, economic, legal, political, and environmental issues that impact the field.

Degree Requirements

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
LDR-600	Leadership Styles and Development	4 credits
LDR-612	Coaching, Mentoring, and Leadership Development	4 credits
LDR-615	Organizational Development and Change	4 credits
EMM-600	Emergency Planning and Management	4 credits
EMM-605	Economic and Human Issues	4 credits
EMM-610	Law and Legal Issues	4 credits
EMM-685^Ω	Leadership in Emergency Management Capstone	4 credits
Master of Science in Leadership with an Emphasis in Homeland Security and Emergency Management		34 credits

Minors

The Colangelo College of Business offers minors in the following areas:

Minor in Air Force (ROTC)

AES-101	Air Force Today I	2 credits
AES-102	Leadership Laboratory	0 credit
AES-103	Air Force Today II	2 credits
AES-104	Leadership Laboratory	0 credit
AES-201	The Evolution of USAF Air and Space Power I	2 credits
AES-202A	Leadership Laboratory	0 credit
AES-203	The Evolution of USAF Air and Space Power II	2 credits
AES-204	Leadership Laboratory	0 credit
AES-301	Air Force Leadership Studies I	3 credits
AES-302	Leadership Laboratory	0 credit
AES-303	Air Force Leadership Studies II	3 credits
AES-304	Leadership Laboratory	0 credit

AES-401	National Security Affairs	3 credits
AES-402	Leadership Laboratory	0 credit
AES-403A	Regional Security Issues	3 credits
AES-404	Leadership Laboratory	0 credit
AES-294A	Air Force Physical Fitness	2 credits
AES-294B	Air Force Physical Fitness	2 credits
AES-294C	Air Force Physical Fitness	2 credits
AES-294D	Air Force Physical Fitness	2 credits
AES-294E	Air Force Physical Fitness	2 credits
AES-294F	Air Force Physical Fitness	2 credits
AES-294G	Air Force Physical Fitness	2 credits
AES-294H	Air Force Physical Fitness	2 credits
Minor in Air Force (ROTC)		36 credits

Minor in Army (ROTC)

MSL-101N	Introduction to the Army	3 credits
MSL-102N	Foundations of Agile and Adaptive Leadership	3 credits
MSL-201N	Leadership and Decision Making	3 credits
MSL-202N	Army Doctrine and Team Development	3 credits
MSL-301N	Training Management and the Warfighting Functions	3 credits
MSL-302N	Applied Leadership in Small Unit Operations	3 credits
MSL-401N	The Army Officer	3 credits
MSL-402N	Company Grade Leadership	3 credits
HIS-231	American Military History	3 credits
Minor in Army (ROTC)		27 credits

Minor in Accounting

ACC-250	Financial Accounting	4 credits
ACC-260	Managerial Accounting	4 credits
ACC-370	Intermediate Accounting I	4 credits
ACC-371	Intermediate Accounting II	4 credits
ACC-360	Cost Accounting	4 credits
Minor in Accounting		20 credits

Minor in Business Analytics

The Business Analytics minor consists of courses that cover database, data visualization, predictive & perspective analytics, and data mining topics. Emphasis is placed on hands-on learning

BIT-200	Introduction to Computer Technology	4 credits
BUS-352	Business Statistics	4 credits
SYM-400	Introduction to Database Structure	4 credits
BIT-430	Introduction to Business Analytics	4 credits
BIT-435	Advanced Business Analytics	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BIT-445	Data Mining	4 credits
Minor in Business Analytics		20 credits

Minor in Business Management

MGT-410	Servant Leadership	4 credits
MGT-325	Managing Business Communications and Change	4 credits
MGT-420	Organizational Behavior and Management	4 credits
BUS-390	Global Business	4 credits
MGT-434	Human Resources	4 credits
Minor in Business Management		20 credits

Minor in Entrepreneurial Studies

ENT-320	Public Relations and Networking Skills	4 credits
ENT-420	New Venture Financing	4 credits
ENT-436	Entrepreneurship and Innovation	4 credits
ENT-446	Business Execution	4 credits
Minor in Entrepreneurial Studies		16 credits

Minor in Finance and Economics

BUS-352	Business Statistics	4 credits
ECN-351	Essentials of Economics	4 credits
ACC-240	Fundamentals of Accounting	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
FIN-450	Intermediate Finance	4 credits
FIN-375	Introduction to Investments	4 credits
ECN-450	International Trade and Finance	4 credits
Minor in Finance and Economics		28 credits

Minor in General Business

BIT-200	Introduction to Technology	4 credits
ACC-240	Fundamentals of Accounting	4 credits
BUS-352	Business Statistics	4 credits
ECN-351	Essentials of Economics	4 credits

MGT-420	Organizational Behavior and Management	4 credits
Minor in General Business		20 credits

Minor in Hospitality Management

HOS-200	Introduction to Hospitality	4 credits
HOS-440	Hotel and Lodging Management and Operations I	4 credits
HOS-460	Food and Beverage Service Management and Operations	4 credits
HOS-470	Hospitality Services Marketing	4 credits
Minor in Hospitality Management		16 credits

Minor in Marketing

MKT-315	Introduction to Marketing	4 credits
MKT-345	Buyer and Consumer Behavior	4 credits
MKT-415	Promotion and Advertising	4 credits
MKT-450	Marketing Management	4 credits
MKT-462	Digital Marketing and Advertising	4 credits
Minor in Marketing		20 credits

Minor in Sports Management

Grand Canyon University's Bachelor of Science in Sports Management program is named after legendary sports business icon Jerry Colangelo and is uniquely positioned within the Colangelo College of Business. The business-based curriculum prepares students for a vast array of potential career path opportunities in the multibillion dollar sports and entertainment industry. Coursework emphasizes key sports business specific skills including sales, marketing, revenue generation, and event operations.

BUS-232	Introduction to Sports Management	4 credits
MKT-315	Introduction to Marketing	4 credits
BUS-372	Sports Events	4 credits
MKT-373	Sports Marketing	4 credits
MKT-465	Sports Retail Management & Sales	4 credits
Minor in Sports Management		24 credits

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

The College of Doctoral Studies

College Description

The College of Doctoral Studies provides planning, administration, and evaluation of GCU doctoral programs. The College is responsible for operations concerning doctoral learners including screening applications, assessing students' needs for support services, interfacing with Enrollment, planning and participating in residencies, helping to develop course materials, and providing support throughout the doctoral process. The College provides oversight to the selection of doctoral faculty and contributes to faculty training and evaluation.

College Mission

The College develops expert practitioners and researchers who become leaders in the disciplines and communities they serve.

College Vision

Through innovative uses of technology, collaboration, and learning communities, the College of Doctoral Studies will be the premier provider of online doctoral education.

College Features

Innovative programs in the College of Doctoral Studies are designed to develop scholars through instruction in theory and research, and through practitioners' knowledge. These activities prepare learners to produce scholarly literature, solve problems, and enhance performance in professional roles. The doctoral programs leverage the knowledge and expertise of faculty, learners, and experts external to the University through learning communities specific to the issues, concepts, and methods of a given discipline. Furthermore, the College of Doctoral Studies emphasizes that graduates apply their professional knowledge and services to the benefit of the community.

Doctoral Program Goals

The College of Doctoral Studies expects its graduates to:

- Be experts in the concepts and methods of their disciplines.
- Create new ways to explain, predict, and improve performance within their areas of expertise.
- Conduct scholarly research that creates knowledge and leads to effective actions.
- Exercise ethical and effective leadership.
- Lead through critical analysis and creative solutions.

Doctoral Programs

Bridge to Doctor of Business Administration with an Emphasis in Data Analytics

Offered online by the College of Doctoral Studies, Grand Canyon University's Bridge to Doctor of Business Administration (DBA) program is designed for ambitious learners with a Master's degree in a field other than business administration. Bridge courses taken prior to the DBA program offer the essential prerequisites to doctoral study. The Bridge to the Doctor of Business Administration with an emphasis in Data Analytics program includes coursework in probability, statistics, finance, accounting, marketing and relational database to help the learner prepare to successfully complete the DBA degree program.

[ACC-502](#) Accounting Practices 4 credits

FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
MKT-607	Marketing Management	4 credits
MIS-605	Introduction to Databases	4 credits

Bridge to Doctor of Business Administration with an Emphasis in Data Analytics 20 credits

Bridge to Doctor of Business Administration with an Emphasis in Management

Offered online by the College of Doctoral Studies, Grand Canyon University's Bridge to Doctor of Business Administration (DBA) program is designed for ambitious learners with a Master's degree in a field other than business administration. Bridge courses taken prior to the DBA program offer the essential prerequisites to doctoral study. The Bridge to the Doctor of Business Administration with an emphasis in Management program includes coursework in probability, statistics, finance, accounting, and marketing to help prepare the learner to successfully complete the DBA degree program.

ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits
SYM-506	Applied Business Probability and Statistics	4 credits
MKT-607	Marketing Management	4 credits

Bridge to Doctor of Business Administration with an Emphasis in Management 16 credits

Bridge to Doctor of Business Administration with an Emphasis in Marketing

Offered online by the College of Doctoral Studies, Grand Canyon University's Bridge to Doctor of Business Administration (DBA) program is designed for ambitious learners with a Master's degree in a field other than business administration. Bridge courses taken prior to the DBA program offer the essential prerequisites to doctoral study. The Bridge to the Doctor of Business Administration with an emphasis in Marketing program includes coursework in probability, statistics, finance, accounting, and marketing to help prepare the learner to successfully complete the DBA degree program.

ACC-502	Accounting Practices	4 credits
FIN-504	Finance Principles	4 credits

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

SYM-506	Applied Business Probability and Statistics	4 credits
MKT-607	Marketing Management	4 credits
Bridge to Doctor of Business Administration with an Emphasis in Marketing		16 credits

Bridge to Doctor of Philosophy in Counselor Education and Supervision

Offered online by the College of Doctoral Studies, Grand Canyon University's Bridge to Doctor of Philosophy (PhD) in Counselor Education and Supervision program is designed for ambitious learners with a Master's degree in counseling but who require specific core courses required to meet CACREP standards. Bridge courses taken prior to the PhD program offer the essential prerequisites to doctoral study. The Bridge to the Doctor of Philosophy (PhD) in Counselor Education and Supervision program includes coursework in human growth and development, assessment and testing, research and program evaluation, and career development to help prepare the learner to successfully complete the PhD degree program.

PCN-518	Human Growth and Development	3 credits
PCN-523	Tests and Appraisal in Counsel	3 credits
PCN-540	Research Methods	3 credits
PCN-525	Career Development and Counseling	3 credits

Bridge to Doctor of Philosophy in Counselor Education and Supervision		12 credits
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Doctor of Business Administration with an Emphasis in Data Analytics

The Doctor of Business Administration Program with emphasis in Analytics Program will prepare students for senior leadership positions in business and institutions of higher learning where expertise is needed in using big data to help organizations make tactical and strategic decisions. Students study topics related to databases, data mining, descriptive analytics, data visualization, predictive analytics, prescriptive analytics, and ethical aspects of using data. Emphasis is on hands-on application using industry tools.

Degree Requirements

RES-811 ^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
DBA-820	Emerging Issues in Financial Management	3 credits
MGT-820	Using Business Analytics for Competitive Advantage	3 credits
DBA-831	Analytic Foundations for Business Leaders	3 credits
RES-850 ^Ω	Foundations for Research	3 credits
RSD-851 ^Ω	Residency: Dissertation	3 credits
DBA-833	Predictive Modeling	3 credits
RES-861 ^Ω	Analysis of Existing Research	3 credits
DBA-815	Economics for Business Decisions	3 credits
DBA-835	The Sustainable Future	3 credits
RES-866 ^Ω	Approaches to Research Design and Data Analysis	3 credits
RES-845 ^Ω	Statistics	3 credits

RSD-881 ^Ω	Residency: Presentation of Progress or Results	3 credits
DBA-837	Prescriptive Modeling for Business Decisions	3 credits
DBA-839	Enterprise Data Complexity	3 credits
RES-880 ^Ω	Formalizing the Research Prospectus	3 credits
DBA-885	Developing the Research Proposal	3 credits
DBA-955 ^Ω	Dissertation I	3 credits
DBA-960 ^Ω	Dissertation II	3 credits
DBA-965 ^Ω	Dissertation III	3 credits

Doctor of Business Administration with an Emphasis in Data Analytics		60 credits
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Doctoral learners who did not complete their dissertation in DBA-965^Ω must take one or more of the following in order to complete their dissertation:

DBA-966 ^Ω	Research Continuation I	3 credits
DBA-967 ^Ω	Research Continuation II	3 credits
DBA-968 ^Ω	Research Continuation III	3 credits
DBA-969 ^Ω	Research Continuation IV	3 credits
DBA-970 ^Ω	Research Continuation V	3 credits
DBA-975 ^Ω	Dissertation Research Continuation	0 credits

Doctor of Business Administration with an Emphasis in Management

Grand Canyon University's Doctor of Business Administration program is designed for those who desire a deeper understanding of business theory and its application to their area of professional interest. Graduates will demonstrate their God-given purpose by learning to create, advance, and disseminate new knowledge in a business field and by preparing to apply that knowledge as practitioners and experts in organizations through interacting with an integrated programmatic business case. The degree also prepares graduates to demonstrate their God-given purpose as educators and administrators in institutions of higher learning.

Degree Requirements

RES-811 ^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
DBA-820	Emerging Issues in Financial Management	3 credits
DBA-805	Management Theory in a Global Economy	3 credits
MGT-805	Designing Organizational Structures	3 credits
RES-850 ^Ω	Foundations for Research	3 credits
RSD-851 ^Ω	Residency: Dissertation	3 credits
MGT-825	Contemporary Business Law	3 credits
RES-861 ^Ω	Analysis of Existing Research	3 credits
DBA-815	Economics for Business Decisions	3 credits
DBA-835	The Sustainable Future	3 credits
RES-866 ^Ω	Approaches to Research Design and Data Analysis	3 credits
RES-845 ^Ω	Statistics	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

RSD-881 ^Ω	Residency: Presentation of Progress or Results	3 credits
MGT-820	Contemporary Business Law	3 credits
MGT-830	Management of Business Complexity	3 credits
RES-880 ^Ω	Formalizing the Research Prospectus	3 credits
DBA-885	Developing the Research Proposal	3 credits
DBA-955 ^Ω	Dissertation I	3 credits
DBA-960 ^Ω	Dissertation II	3 credits
DBA-965 ^Ω	Dissertation III	3 credits

Doctor of Business Administration with an Emphasis in Management 60 credits

Doctoral learners who did not complete their dissertation in DBA-965^Ω must take one or more of the following in order to complete their dissertation:

DBA-966 ^Ω	Research Continuation I	3 credits
DBA-967 ^Ω	Research Continuation II	3 credits
DBA-968 ^Ω	Research Continuation III	3 credits
DBA-969 ^Ω	Research Continuation IV	3 credits
DBA-970 ^Ω	Research Continuation V	3 credits
DBA-975 ^Ω	Dissertation Research Continuation	0 credits

Doctor of Business Administration with an Emphasis in Marketing

The Doctor of Business Administration Program with an Emphasis in Marketing will prepare students for senior leadership positions in business and institutions of higher learning where expertise is needed to develop and employ innovative new methods to understand and influence current and prospective customer behaviors. Advancement of mobile devices, on-line retail purchases and changes in demographics are revolutionizing marketing. Students study topics related to databases, data mining, descriptive analytics, data visualization, predictive analytics, prescriptive analytics, and ethical aspects of employing marketing techniques.

Degree Requirements

RES-811 ^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
DBA-820	Emerging Issues in Financial Management	3 credits
MKT-830	The History and Philosophy of Marketing	3 credits
MKT-832	Digital Technology and Consumer Behavior	3 credits
RES-850 ^Ω	Foundations for Research	3 credits
RSD-851 ^Ω	Residency: Dissertation	3 credits
MKT-834	Data-Driven Marketing Management	3 credits
RES-861 ^Ω	Analysis of Existing Research	3 credits
DBA-815	Economics for Business Decisions	3 credits
DBA-835	The Sustainable Future	3 credits
RES-866 ^Ω	Approaches to Research Design and Data Analysis	3 credits
RES-845 ^Ω	Statistics	3 credits

RSD-881 ^Ω	Residency: Presentation of Progress or Results	3 credits
MKT-836	Consumer Behaviors in Global Marketing	3 credits
MKT-838	Complexity of Marketing	3 credits
RES-880 ^Ω	Formalizing the Research Prospectus	3 credits
DBA-885	Developing the Research Proposal	3 credits
DBA-955 ^Ω	Dissertation I	3 credits
DBA-960 ^Ω	Dissertation II	3 credits
DBA-965 ^Ω	Dissertation III	3 credits

Doctor of Business Administration with an Emphasis in Marketing 60 credits

Doctoral learners who did not complete their dissertation in DBA-965^Ω must take one or more of the following in order to complete their dissertation:

DBA-966 ^Ω	Research Continuation I	3 credits
DBA-967 ^Ω	Research Continuation II	3 credits
DBA-968 ^Ω	Research Continuation III	3 credits
DBA-969 ^Ω	Research Continuation IV	3 credits
DBA-970 ^Ω	Research Continuation V	3 credits
DBA-975 ^Ω	Dissertation Research Continuation	0 credits

Doctor of Education in Organizational Leadership with an Emphasis in Behavioral Health

The Doctor of Education in Organizational Leadership program develops the learner's ability to generate new knowledge and responsibly apply knowledge to achieve high-performing entities that allow organizational employees and followers to grow and develop to their full potential. Learners will study the major bodies of literature in leadership, reflect critically on existing theory, and identify appropriate applications of theory in education, business, and other organizational cultures. Learners will develop academic and organizational research expertise through the study of statistical and research methodologies. The program of study is consistent with Grand Canyon University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Graduates who earn the Doctor of Education in Organizational Leadership with an Emphasis in Behavioral Health will advance the study of leadership within the field of behavior health with an in-depth, research-based approach to facilitate the leadership abilities and role as a strategic professional.

Degree Requirements

RES-811 ^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850 ^Ω	Foundations for Research	3 credits
PCN-807	Psychopathology, Behavioral Assessment, and Interventions	3 credits
PCN-812	Behavioral Health Management	3 credits
RSD-851 ^Ω	Residency: Dissertation	3 credits
RES-861 ^Ω	Analysis of Existing Research	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

PCN-820	Behavioral Health Clinical Supervision	3 credits
PCN-822	Behavioral Health Entrepreneurship	3 credits
RES-866^Ω	Approaches to Research Design and Data Analysis	3 credits
LDR-825	Strategic Planning and Change	3 credits
LDR-804	Leading Across Cultures	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
PCN-805	Consultation for Behavioral Health Professionals	3 credits
RES-885^Ω	Developing the Research Proposal	3 credits
DIS-955^Ω	Dissertation I	3 credits
DIS-960^Ω	Dissertation II	3 credits
DIS-965^Ω	Dissertation III	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Behavioral Health 60 credits

Doctoral learners who did not complete their dissertation in DIS-965 must take one or more of the following in order to complete their dissertation:

DIS-966^Ω	Research Continuation I	3 credits
DIS-967^Ω	Research Continuation II	3 credits
DIS-968^Ω	Research Continuation III	3 credits
DIS-969^Ω	Research Continuation IV	3 credits
DIS-970^Ω	Research Continuation V	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Christian Ministry

The Doctor of Education in Organizational Leadership program develops the learner's ability to generate new knowledge and responsibly apply knowledge to achieve high-performing entities that allow organizational employees and followers to grow and develop to their full potential. Learners will study the major bodies of literature in leadership, reflect critically on existing theory, and identify appropriate applications of theory in education, business, and other organizational cultures. Learners will develop academic and organizational research expertise through the study of statistical and research methodologies. The program of study is consistent with Grand Canyon University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Graduates who earn the Doctor of Education in Organizational Leadership with an Emphasis in Christian Ministry will advance the study of leadership within the field of Christian ministry with an in-depth research-based approach to facilitate leadership within Christian ministry and society.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850^Ω	Foundations for Research	3 credits
MIN-807	Disciple Making in the Leadership Context	3 credits

MIN-812	Theology of Leadership	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
MIN-817	Christian Ministry and Culture	3 credits
MIN-822	Trends and Issues in Christian Ministry	3 credits
RES-866^Ω	Approaches to Research Design and Data Analysis	3 credits
LDR-825	Strategic Planning and Change	3 credits
LDR-804	Leading Across Cultures	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
MIN-827	Practical Considerations in Christian Ministry	3 credits
RES-885^Ω	Developing the Research Proposal	3 credits
DIS-955^Ω	Dissertation I	3 credits
DIS-960^Ω	Dissertation II	3 credits
DIS-965^Ω	Dissertation III	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Christian Ministry 60 credits

Doctoral learners who did not complete their dissertation in DIS-965 must take one or more of the following in order to complete their dissertation:

DIS-966^Ω	Research Continuation I	3 credits
DIS-967^Ω	Research Continuation II	3 credits
DIS-968^Ω	Research Continuation III	3 credits
DIS-969^Ω	Research Continuation IV	3 credits
DIS-970^Ω	Research Continuation V	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Health Care Administration

The Doctor of Education in Organizational Leadership program develops the learner's ability to generate new knowledge and responsibly apply knowledge to achieve high-performing entities that allow organizational employees and followers to grow and develop to their full potential. Learners will study the major bodies of literature in leadership, reflect critically on existing theory, and identify appropriate applications of theory in education, business, and other organizational cultures. Learners will develop academic and organizational research expertise through the study of statistical and research methodologies. The program of study is consistent with Grand Canyon University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Graduates who earn the Doctor of Education in Organizational Leadership with an Emphasis in Health Care Administration will advance the study of leadership within the field of health care with an in-depth, research-based approach to facilitate the leadership abilities and role as a strategic professional.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850^Ω	Foundations for Research	3 credits
HCA-807	Structures and Governance in Health Care	3 credits
HCA-812	Health Care Regulation	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
HCA-817	Professional Development and Leadership in Health Care	3 credits
HCA-822	Building a Culture of Community in Health Care	3 credits
RES-866^Ω	Approaches to Research Design and Data Analysis	3 credits
LDR-825	Strategic Planning and Change	3 credits
LDR-804	Leading Across Cultures	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
HCA-827	Sustainability of Health Care Organizations	3 credits
RES-885^Ω	Developing the Research Proposal	3 credits
DIS-955^Ω	Dissertation I	3 credits
DIS-960^Ω	Dissertation II	3 credits
DIS-965^Ω	Dissertation III	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Health Care Administration 60 credits

Doctoral learners who did not complete their dissertation in DIS-965 must take one or more of the following in order to complete their dissertation:

DIS-966^Ω	Research Continuation I	3 credits
DIS-967^Ω	Research Continuation II	3 credits
DIS-968^Ω	Research Continuation III	3 credits
DIS-969^Ω	Research Continuation IV	3 credits
DIS-970^Ω	Research Continuation V	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Higher Education Leadership

The Doctor of Education in Organizational Leadership program develops the learner's ability to generate new knowledge and responsibly apply knowledge to achieve high-performing entities that allow organizational employees and followers to grow and develop to their full potential. Learners will study the major bodies of literature in leadership, reflect critically on existing theory, and identify appropriate applications of theory in education, business, and other organizational cultures. Learners will develop academic and organizational research expertise through the study of statistical and research methodologies. The program of study is consistent with Grand Canyon University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Graduates who earn the Doctor of Education in Organizational Leadership with an Emphasis in Higher Education Leadership will advance the study of leadership within the field of higher

education leadership with an in-depth, research-based approach to facilitate the leadership abilities and role as a strategic professional.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850^Ω	Foundations for Research	3 credits
EDU-805	History and Politics of Higher Education	3 credits
EDU-812	Governance and Structures in Higher Education	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
EDU-817	Building a Community of Scholars in Higher Education	3 credits
EDU-822	Fiscal Management in Higher Education	3 credits
RES-866^Ω	Approaches to Research Design and Data Analysis	3 credits
LDR-825	Strategic Planning and Change	3 credits
LDR-804	Leading Across Cultures	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
EDU-827	Strategic Planning in Higher Education	3 credits
RES-885^Ω	Developing the Research Proposal	3 credits
DIS-955^Ω	Dissertation I	3 credits
DIS-960^Ω	Dissertation II	3 credits
DIS-965^Ω	Dissertation III	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Higher Education Leadership 60 credits

Doctoral learners who did not complete their dissertation in DIS-965 must take one or more of the following in order to complete their dissertation:

DIS-966^Ω	Research Continuation I	3 credits
DIS-967^Ω	Research Continuation II	3 credits
DIS-968^Ω	Research Continuation III	3 credits
DIS-969^Ω	Research Continuation IV	3 credits
DIS-970^Ω	Research Continuation V	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in K-12 Leadership

The Doctor of Education in Organizational Leadership program develops the learner's ability to generate new knowledge and responsibly apply knowledge to achieve high-performing entities that allow organizational employees and followers to grow and develop to their full potential. Learners will study the major bodies of literature in leadership, reflect critically on existing theory, and identify appropriate applications of theory in education, business, and other organizational cultures. Learners will develop academic and organizational research expertise through the study of statistical and research methodologies. The

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

program of study is consistent with Grand Canyon University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Graduates who earn the Doctor of Education in Organizational Leadership with an Emphasis in K-12 Leadership will advance the study of leadership within the field of K-12 education leadership with an in-depth, research-based approach to facilitate the leadership abilities and role as a strategic professional.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850^Ω	Foundations for Research	3 credits
EDL-807	History and Politics of K-12 Education	3 credits
EDL-812	Governance and Structures in K-12 Education	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
EDL-817	Building a K-12 Community	3 credits
EDL-822	Trends and Issues in K-12 Education	3 credits
RES-866^Ω	Approaches to Research Design and Data Analysis	3 credits
LDR-825	Strategic Planning and Change	3 credits
LDR-804	Leading Across Cultures	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
EDL-827	Strategic Planning in K-12 Education	3 credits
RES-885^Ω	Developing the Research Proposal	3 credits
DIS-955^Ω	Dissertation I	3 credits
DIS-960^Ω	Dissertation II	3 credits
DIS-965^Ω	Dissertation III	3 credits

Doctor of Education in Organizational with an Emphasis in K-12 Leadership	60 credits
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Doctoral learners who did not complete their dissertation in DIS-965 must take one or more of the following in order to complete their dissertation:

DIS-966^Ω	Research Continuation I	3 credits
DIS-967^Ω	Research Continuation II	3 credits
DIS-968^Ω	Research Continuation III	3 credits
DIS-969^Ω	Research Continuation IV	3 credits
DIS-970^Ω	Research Continuation V	3 credits

Doctor of Education in Organizational Leadership with an Emphasis in Organizational Development

The Doctor of Education in Organizational Leadership program develops the learner's ability to generate new knowledge and responsibly apply knowledge to achieve high-performing entities that allow organizational employees and followers to grow and develop to their full potential. Learners will study the major

bodies of literature in leadership, reflect critically on existing theory, and identify appropriate applications of theory in education, business, and other organizational cultures. Learners will develop academic and organizational research expertise through the study of statistical and research methodologies. The program of study is consistent with Grand Canyon University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Graduates who earn the Doctor of Education in Organizational Leadership with an Emphasis in Organizational Development will examine organizational culture, communication, and leader/follower interaction, and will analyze organizational models using constructs from research to explain behaviors and events in an organizational setting.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850^Ω	Foundations for Research	3 credits
ORG-807	Stakeholders: Roles in Organizations	3 credits
ORG-812	Organizational Theory, Structure, and Process	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
ORG-817	Systems Thinking: Building Organizations That Last	3 credits
ORG-822	Individual Differences and Organizational Outcomes	3 credits
RES-866^Ω	Approaches to Research Design and Data Analysis	3 credits
LDR-825	Strategic Planning and Change	3 credits
LDR-804	Leading Across Cultures	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
ORG-827	Strategic Decision Making	3 credits
RES-885^Ω	Developing the Research Proposal	3 credits
DIS-955^Ω	Dissertation I	3 credits
DIS-960^Ω	Dissertation II	3 credits
DIS-965^Ω	Dissertation III	3 credits

Doctor of Education in Organizational with an Emphasis in Organizational Development	60 credits
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Doctoral learners who did not complete their dissertation in DIS-965 must take one or more of the following in order to complete their dissertation:

DIS-966^Ω	Research Continuation I	3 credits
DIS-967^Ω	Research Continuation II	3 credits
DIS-968^Ω	Research Continuation III	3 credits
DIS-969^Ω	Research Continuation IV	3 credits
DIS-970^Ω	Research Continuation V	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Doctor of Education in Organizational Leadership with an Emphasis in Special Education

The Doctor of Education in Organizational Leadership program develops the learner's ability to generate new knowledge and responsibly apply knowledge to achieve high-performing entities that allow organizational employees and followers to grow and develop to their full potential. Learners will study the major bodies of literature in leadership, reflect critically on existing theory, and identify appropriate applications of theory in education, business, and other organizational cultures. Learners will develop academic and organizational research expertise through the study of statistical and research methodologies. The program of study is consistent with Grand Canyon University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Graduates who earn the Doctor of Education in Organizational Leadership with an Emphasis in Special Education will advance the study of leadership within the field of special education with an in-depth research-based approach to facilitate the leadership abilities and role as a strategic professional.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850^Ω	Foundations for Research	3 credits
SPE-807	Foundations of Special Education	3 credits
SPE-812	Special Education Law	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
SPE-817	Supervision and Administration of Special Education	3 credits
SPE-822	Fiscal Management in Special Education	3 credits
RES-866-880^Ω	Approaches to Research Design and Data Analysis	3 credits
LDR-825	Strategic Planning and Change	3 credits
LDR-804	Leading Across Cultures	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
SPE-827	Perspectives in Special Education	3 credits
RES-885^Ω	Developing the Research Proposal	3 credits
DIS-955^Ω	Dissertation I	3 credits
DIS-960^Ω	Dissertation II	3 credits
DIS-965^Ω	Dissertation III	3 credits

Doctor of Education in Organizational with an Emphasis in Special Education 60 credits

Doctoral learners who did not complete their dissertation in DIS-965 must take one or more of the following in order to complete their dissertation:

DIS-966^Ω	Research Continuation I	3 credits
DIS-967^Ω	Research Continuation II	3 credits

DIS-968^Ω	Research Continuation III	3 credits
DIS-969^Ω	Research Continuation IV	3 credits
DIS-970^Ω	Research Continuation V	3 credits
DIS-970^Ω	Research Continuation V	3 credits

Doctor of Education in Teaching and Learning with an Emphasis in Adult Learning

The Doctor of Education in Teaching and Learning program develops educators capable of generating new knowledge and responsibly applying knowledge to achieve educational outcomes as well as mentoring, coaching, and collaborating from the perspective of the Christian worldview. Students will study the major bodies of literature in educational theory and philosophy, will reflect critically on existing theory, will identify appropriate applications of theory, and will conceptualize philosophy from its theoretic foundation. Students will develop academic and research expertise through the study of research methodology. The program of study is consistent with Grand Canyon University's mission to develop students who are global citizens, critical thinkers, effective communicators, and responsible leaders.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
TLC-801	History and Philosophy of Teaching and Learning	3 credits
TLC-802	Learning Theories	3 credits
RES-850^Ω	Foundations for Research	3 credits
TLA-830	Adult Learning Theory	3 credits
TLA-832	Worldview and Adult Learning	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
TLA-834	Cognitive Coaching	3 credits
TLA-836	Transformational Learning	3 credits
RES-866^Ω	Approaches to Research Design and Data Analysis	3 credits
TLC-803	Coaching, Mentoring, and Collaboration	3 credits
TLC-804	Globalization, Innovation, and Change	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-880	Formalizing the Research Prospectus	3 credits
TLA-838	Applications of Adult Learning	3 credits
TLC-885^Ω	Developing the Research Proposal	3 credits
TLC-955^Ω	Dissertation I	3 credits
TLC-960^Ω	Dissertation II	3 credits
TLC-965^Ω	Dissertation III	3 credits

Doctor of Education in Teaching and Learning with an Emphasis in Adult Learning 60 credits

Doctoral learners who did not complete their dissertation in TLC-965 must take one or more of the following in order to complete their dissertation:

TLC-966^Ω	Research Continuation I	3 credits
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^Δ Writing intensive course | [◆] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

TLC-967 ^Ω	Research Continuation II	3 credits
TLC-968 ^Ω	Research Continuation III	3 credits
TLC-969 ^Ω	Research Continuation IV	3 credits
TLC-970 ^Ω	Research Continuation V	3 credits

Doctor of Philosophy in Counselor Education and Supervision

The doctoral degree in Counselor Education and Supervision is intended to prepare graduates to work as counselor educators, supervisors, researchers, and practitioners in academic and clinical settings. The standards for this program are intended to accommodate the unique strengths of students seeking to enhance their leadership and counseling skills.

Degree Requirements

RES-811 ^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
PCE-801	Ethics, Laws, and Multicultural Issues	3 credits
PCE-802	Pedagogy of Counselor Education and Models of Supervision	3 credits
RES-825 ^Ω	Theories of Inquiry	3 credits
PCE-830	Advanced Family Dynamics and Systems	3 credits
PCE-803	Advanced Integrated Theories and Practices	3 credits
RSD-851 ^Ω	Residency: Dissertation	3 credits
RES-845 ^Ω	Statistics	3 credits
PCE-832	Advanced Group Dynamics and Processes	3 credits
PCE-834	Special Topics in Counseling Education and Supervision	3 credits
RES-855 ^Ω	Qualitative Research Methods	3 credits
RSD-881 ^Ω	Residency: Presentation of Progress or Results	3 credits
PCE-804	Leadership and Social Justice	3 credits
PCE-836	Integrated Models of Assessment, Diagnosis, and Treatment	3 credits
PCE-885 ^Ω	Developing the Research Proposal	3 credits
PCE-955 ^Ω	Dissertation I	3 credits
PCE-905 ^Ω	Counselor Education and Supervision Practicum	2 credits
PCE-910 ^Ω	Counselor Education and Supervision Internship I	3 credits
PCE-960 ^Ω	Dissertation II	3 credits
PCE-965 ^Ω	Dissertation III	3 credits
PCE-911 ^Ω	Counselor Education and Supervision Internship 2	3 credits

Doctor of Philosophy in Counselor Education and Supervision	62 credits
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Doctor of Philosophy in General Psychology with an Emphasis in Cognition and Instruction

This degree is not intended for those seeking licensure in clinical practice. Those interested in licensure or certification should identify the applicable requirements by inquiring directly with their state or province.

Grand Canyon University's Doctor of Philosophy (Ph.D.) in General Psychology program offers a broad array of courses that increase the understanding of human actions in the past and present. The program prepares individuals to engage their knowledge and skills in cognition and instruction in applied settings of teaching and/or conducting psychological research in business, government, or institutions of higher education. Core areas of knowledge include history and systems of psychology, cognition, research methods, and statistics, as well as personality, abnormal, social, multicultural, and developmental psychology. Students are advised to inquire directly with their state if they intend to pursue licensure, as this degree does not lead directly to licensure in and of itself. Entry to this program requires a graduate degree and related coursework.

Degree Requirements

RES-811 ^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
PSY-802	Psychoanalysis and Psychodynamic Theory	3 credits
PSY-803	Behaviorism	3 credits
RES-825	Theories of Inquiry	3 credits
PSY-820	Cognitive Science	3 credits
PSY-804	Humanistic, Transpersonal and Existential Psychology	3 credits
RSD-851 ^Ω	Residency: Dissertation	3 credits
RES-845 ^Ω	Statistics	3 credits
PSY-812	Tests and Measurements	3 credits
PSY-860	Human Learning and Cognition	3 credits
RES-855 ^Ω	Qualitative Research Methods	3 credits
PSY-863	Cognition and Instruction	3 credits
RSD-881 ^Ω	Residency: Presentation of Progress or Results	3 credits
PSY-815 ^Ω	Ethical Issues In Psychology	3 credits
RES-880 ^Ω	Formalizing the Research Prospectus	3 credits
PSY-866	Social Cognition	3 credits
PSY-885 ^Ω	Developing the Research Proposal	3 credits
PSY-955 ^Ω	Dissertation I	3 credits
PSY-960 ^Ω	Dissertation II	3 credits
PSY-965 ^Ω	Dissertation III	3 credits

Doctor of Philosophy in General Psychology with an Emphasis in Cognition and Instruction	60 credits
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Doctoral learners who did not complete their dissertation in PSY-965 must take one or more of the following in order to complete their dissertation:

PSY-966 ^Ω	Research Continuation I	3 credits
PSY-967 ^Ω	Research Continuation II	3 credits
PSY-968 ^Ω	Research Continuation III	3 credits
PSY-969 ^Ω	Research Continuation IV	3 credits
PSY-970 ^Ω	Research Continuation V	3 credits
PSY-975 ^Ω	Dissertation Research Continuation	0 credits

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

Doctor of Philosophy in General Psychology with an Emphasis in Industrial and Organizational Psychology

This degree is not intended for those seeking licensure in clinical practice. Those interested in licensure or certification should identify the applicable requirements by inquiring directly with their state or province.

Grand Canyon University's Doctor of Philosophy (Ph.D.) in General Psychology program offers a broad array of courses that increase the understanding of human actions in the past and present. The program prepares individuals to engage their knowledge and skills in the areas of industrial and organizational psychology in applied business-related settings. Core areas of knowledge include history and systems of psychology, cognition, research methods, and statistics, as well as personality, abnormal, social, multicultural, and developmental psychology. Students are advised to inquire directly with their state if they intend to pursue licensure, as this degree does not lead directly to licensure in and of itself. Entry to this program requires a graduate degree and related coursework.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
PSY-802	Psychoanalysis and Psychodynamic Theory	3 credits
PSY-803	Behaviorism	3 credits
RES-825^Ω	Theories of Inquiry	3 credits
PSY-830	Principles of Industrial/Organizational Psychology	3 credits
PSY-804	Humanistic, Transpersonal and Existential Psychology	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-845^Ω	Statistics	3 credits
PSY-832	Psychology of Leadership	3 credits
PSY-834	Psychology of Consulting and Coaching	3 credits
RES-855^Ω	Qualitative Research Methods	3 credits
PSY-836	Principles of Personnel and Human Resource Management	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
PSY-815^Ω	Ethical Issues In Psychology	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
PSY-838	Testing and Assessment in the Workplace	3 credits
PSY-885^Ω	Developing the Research Proposal	3 credits
PSY-955^Ω	Dissertation I	3 credits
PSY-960^Ω	Dissertation II	3 credits
PSY-965^Ω	Dissertation III	3 credits
Doctor of Philosophy in General Psychology with an Emphasis in Industrial and Organizational Psychology		60 credits

Doctoral learners who did not complete their dissertation in PSY-965 must take one or more of the following in order to complete their dissertation:

PSY-966^Ω	Research Continuation I	3 credits
PSY-967^Ω	Research Continuation II	3 credits
PSY-968^Ω	Research Continuation III	3 credits
PSY-969^Ω	Research Continuation IV	3 credits
PSY-970^Ω	Research Continuation V	3 credits
PSY-975^Ω	Dissertation Research Continuation	0 credits

Doctor of Philosophy in General Psychology with an Emphasis in Integrating Technology, Learning, and Psychology

This degree is not intended for those seeking licensure in clinical practice. Those interested in licensure or certification should identify the applicable requirements by inquiring directly with their state or province.

Grand Canyon University's Doctor of Philosophy (Ph.D.) in General Psychology program offers a broad array of courses that increase the understanding of human actions in the past and present. The program prepares individuals to engage their knowledge and skills in cognition and instruction in applied settings of teaching and/or conducting psychological research in business, government, or institutions of higher education. Core areas of knowledge include history and systems of psychology, cognition, research methods, and statistics, as well as personality, abnormal, social, multicultural, and developmental psychology. Students are advised to inquire directly with their state if they intend to pursue licensure, as this degree does not lead directly to licensure in and of itself. Entry to this program requires a graduate degree and related coursework.

Graduates of Grand Canyon University's Doctor of Philosophy in General Psychology program with an emphasis in Integrating Technology, Learning, and Psychology will be able to integrate psychology with technology, instruction, and learning to inform research and create solutions to optimize opportunities for stakeholders.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
PSY-802	Psychoanalysis and Psychodynamic Theory	3 credits
PSY-803	Behaviorism	3 credits
RES-825^Ω	Theories of Inquiry	3 credits
PSY-807	Theories of Cognition, Motivation, Collaboration, and Learning	3 credits
PSY-804	Humanistic, Transpersonal and Existential Psychology	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-845^Ω	Statistics	3 credits
PSY-817	Technologies for Learning and Communication	3 credits
PSY-821	Building Community and Social Networking	3 credits
RES-855^Ω	Qualitative Research Methods	3 credits
PSY-823	Learning and Communication Design	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
PSY-815^Ω	Ethical Issues In Psychology	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
PSY-827	Integrating for Learning and Communication	3 credits
PSY-885^Ω	Developing the Research Proposal	3 credits
PSY-955^Ω	Dissertation I	3 credits
PSY-960^Ω	Dissertation II	3 credits
PSY-965^Ω	Dissertation III	3 credits

Doctor of Philosophy in General Psychology with an Emphasis in Integrating Technology, Learning, and Psychology 60 credits

Doctoral learners who did not complete their dissertation in PSY-965 must take one or more of the following in order to complete their dissertation:

PSY-966^Ω	Research Continuation I	3 credits
PSY-967^Ω	Research Continuation II	3 credits
PSY-968^Ω	Research Continuation III	3 credits
PSY-969^Ω	Research Continuation IV	3 credits
PSY-970^Ω	Research Continuation V	3 credits
PSY-975^Ω	Dissertation Research Continuation	0 credits

Doctor of Philosophy in General Psychology with an Emphasis in Performance Psychology

This degree is not intended for those seeking licensure in clinical practice. Those interested in licensure or certification should identify the applicable requirements by inquiring directly with their state or province.

Grand Canyon University's Doctor of Philosophy (Ph.D.) in General Psychology program offers a broad array of courses that increase the understanding of human actions in the past and present. The program prepares individuals to engage their knowledge and skills in cognition and instruction in applied settings of teaching and/or conducting psychological research in business, government, or institutions of higher education. Core areas of knowledge include history and systems of psychology, cognition, research methods, and statistics, as well as personality, abnormal, social, multicultural, and developmental psychology. Students are advised to inquire directly with their state if they intend to pursue licensure, as this degree does not lead directly to licensure in and of itself. Entry to this program requires a graduate degree and related coursework.

Graduates of Grand Canyon University's Doctor of Philosophy in General Psychology program with an emphasis in Performance Psychology will be able to apply theory and practice to conduct original research or work in applied settings such as sport, military, or medical industries to enhance performance of individuals and groups.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
PSY-802	Psychoanalysis and Psychodynamic Theory	3 credits
PSY-803	Behaviorism	3 credits

RES-825^Ω	Theories of Inquiry	3 credits
PSY-831	Foundations of Performance Psychology	3 credits
PSY-804	Humanistic, Transpersonal and Existential Psychology	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-845	Statistics	3 credits
PSY-833	Psychomotor Performance	3 credits
PSY-835	Principles of Behavior Modification	3 credits
RES-855^Ω	Qualitative Research Methods	3 credits
PSY-837	Applied Psychology of Leadership	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
PSY-815^Ω	Ethical Issues In Psychology	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
PSY-839	Performance Enhancement	3 credits
PSY-885^Ω	Developing the Research Proposal	3 credits
PSY-955^Ω	Dissertation I	3 credits
PSY-960^Ω	Dissertation II	3 credits
PSY-965^Ω	Dissertation III	3 credits

Doctor of Philosophy in General Psychology with an Emphasis in Performance Psychology 60 credits

Doctoral learners who did not complete their dissertation in PSY-965 must take one or more of the following in order to complete their dissertation:

PSY-966^Ω	Research Continuation I	3 credits
PSY-967^Ω	Research Continuation II	3 credits
PSY-968^Ω	Research Continuation III	3 credits
PSY-969^Ω	Research Continuation IV	3 credits
PSY-970^Ω	Research Continuation V	3 credits
PSY-975^Ω	Dissertation Research Continuation	0 credits

Professional Programs

Education Specialist in K-12 Leadership

Grand Canyon University's Education Specialist in K-12 Leadership program is designed to prepare educators to assume a

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

variety of leadership roles in economically and culturally diverse 21st century K-12 educational communities. After foundational instruction in ethics, research, and theory, coursework focuses on educational policy development and decision making, staffing, and organizational leadership, supervision of teaching and learning, instructional and curricular supervision, department and unit management, and other areas related to leadership at the building or district level. The program is aligned with the standards of the Educational Leadership Constituent Council (ELCC) and is consistent with the University's mission to develop learners who are global citizens, critical thinkers, effective communicators, and responsible leaders in a technologically advanced world.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
LDR-802	Progressions in Leadership Thought	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
RES-850^Ω	Foundations for Research	3 credits
EDL-807	History and Politics of K-12 Education	3 credits
EDL-805	Training and Collaboration for Learning	3 credits
EDL-861	Analysis of Educational Research	3 credits
EDL-817	Building a K-12 Community	3 credits
EDL-822	Trends and Issues in K-12 Education	3 credits
EDL-827	Strategic Planning in K-12 Education	3 credits
Educational Specialist in K-12 Leadership		30 credits

Education Specialist in Teaching and Learning

Building a collaborative community focused on student learning requires research, knowledge and the ability plan strategically. Grand Canyon University's Education Specialist (EdS) in Teaching and Learning program is designed to prepare you to

assume a expert role in economically and culturally diverse 21st century educational communities. Offered by the College of Doctoral Studies, this accelerated EdS online program streamlines a rigorous curriculum. Unlike the Doctor of Education in Organizational Leadership with an Emphasis in K-12 Leadership, the EdS degree program does not require a residency or dissertation. With an in-depth analysis-based approach, the Education Specialist degree emphasizes theories and models of teaching, learning and leading in elementary, junior high and high school learning environments. Examine the global politics of education and intervention facilitated by government entities. Study professional learning communities, theories of pedagogy, and explore ways to train and develop the team you will lead and support. Students will learn to excel in teaching with the advanced ability to study industry trends, implement new effective teaching strategies based on original research and apply findings to foster greater classroom success.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
TLC-801	History and Philosophy of Teaching and Learning	3 credits
TLC-802	Learning Theories	3 credits
EDL-861	Analysis of Educational Research	3 credits
EDL-817	Building a K-12 Community	3 credits
EDL-822	Trends and Issues in K-12 Education	3 credits
TLC-803	Coaching, Mentoring, and Collaboration	3 credits
LDR-800	Ethical Dilemmas and Stewardship	3 credits
TLC-804	Globalization, Innovation, and Change	3 credits
EDL-910^Ω	EDS Capstone	3 credits
Educational Specialist in Teaching and Learning		30 credits

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

The College of Education

College Description

The preparation of teachers and administrators for the public and private schools of this nation is a significant responsibility for the College of Education. The programs seek to ensure the highest level of professional and academic competence of the graduate in the classroom. Consequently, most education courses require a certain number of practicum hours. For more detailed information, please refer to the College of Education Web site at: <http://www.gcu.edu/College-of-Education.php>.

College Mission

Professional education programs at Grand Canyon University are designed to support and promote the university's mission to prepare learners to become global citizens, critical thinkers, effective communicators, and responsible leaders from the context of its Christian heritage. The College of Education inspires excellence in pedagogy and scholarship; advances reflective, innovative, and collaborative teaching practices to maximize student learning and achievement; promotes servant leadership in educational communities; and engages a diverse and global community of learners with purpose and passion.

The College of Education operates as a unit of Grand Canyon University. As such, its mission statement reflects the obligation of the College to support and promote the University's mission as well as to guide its own operations. Within its learners, the College inspires excellence in the art and science of teaching; within its faculty, it does so through their scholarly enterprises. Via its professional education programs, the College teaches learners that all learners can learn and that focused teaching practice can maximize that learning and achievement. The culture and Christian heritage of the University promote a spirit of servant leadership within the College's faculty, staff, and learners so they can minister to people within the broader educational community. And, finally, education is a powerful tool with which to purposefully engage a diverse, global community; the College exhorts its faculty, staff, and learners to do so with fervor.

The essence of the College's mission is embodied in three elements—learning, leading, and serving, which are defined as follows:

Learning

The University believes that all learners can learn and that highly effective, innovative, and collaborative teaching and administration maximizes best practice as well as student learning and achievement. Effective teachers and administrators are highly educated, skilled, committed, and compassionate; they ensure all learners learn to the best of their ability.

Leading

The University believes that education is a powerful tool with which to purposefully engage a diverse, global community. As the College's teacher and administrator candidates find their purpose and calling within education, they seek to lead others to reach their God-given potential that they, in turn, will influence their changing world.

Serving

The culture and Christian heritage of the University promote a spirit of servant leadership within the College of Education's faculty, staff, and learners so they can serve people within the broader educational community.

College of Education Promise

Grand Canyon University and the College of Education promise assistance to any graduates of our teacher and principal preparation programs who are experiencing difficulty in their first year of teaching or leading. Believing in the excellence of our programs, we will provide assistance to any graduate recommended by Grand Canyon University for teaching or principal certification in the state of Arizona at the elementary or secondary level.

Since 1984, Grand Canyon University and the College of Education began offering graduates of our licensure programs assistance when needed – at no expense to the school district or to the teacher/principal graduate. The need for assistance may be requested by the Grand Canyon University graduate, the principal or superintendent. The appropriate assistance will be determined by the College of Education and can range from the graduate taking a refresher course in the area of difficulty to receiving mentoring by faculty who will coach in such areas as: curriculum planning and design, classroom and time management, content presentation, and individualized instruction.

College Features

The College of Education provides learners with special program features. Practical classroom experience begins as early as the freshman year with a minimum of 100+ hours in the elementary and/or secondary classroom prior to student teaching. Student teaching is offered in semester-long courses.

The Faculty has significant experience in the K-12 school system and many adjunct faculty hold concurrent employment in the classroom and administrative positions.

The courses in education are planned to provide curricula for licensure and continuing professional education of elementary teachers, secondary teachers, special education teachers, and principals. The learner is strongly advised to contact the College of Education and/or the Arizona State Department of Education regarding licensure information. The Grand Canyon University College of Education is approved by the [Arizona State Board of Education](#) to offer initial programs leading to initial teacher licensure of elementary, secondary, and special education teachers, and an advanced program for principal licensure. The Arizona state-approved programs lead to licensure in Arizona. College of Education learners are responsible for contacting their state Department of Education or Licensing Department for licensure requirements and program approval.

Benchmarks

Based upon requirements established by the Arizona State Board of Education, all teacher candidates, (i.e., COE learners who are in teacher-education programs), will have to demonstrate competency with essential knowledge, skills, and dispositions

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

that are based upon the Interstate Teacher Assessment and Support Consortium (InTASC). Consequently, certain critical assignments in each course will be developed as benchmarks that serve as check points of learner competencies. Some of the benchmarks will be practicum-based, and others will not. Benchmark rubrics inform learners and instructors of the pre-established levels of competency performance for benchmark assignments.

Endorsements

Grand Canyon University does not issue endorsements.

Several different types of endorsements are made available through the various State Departments of Education. Learners should contact their respective state agency to determine the range and requirements of endorsements that are offered.

The College of Education offers the following courses for teacher candidates to obtain a full Arizona SEI Endorsement:

- ESL-223N - SEI English Language Teaching: Foundations and Methodologies
- ESL-433N - Advanced Methodologies and Assessments of Structured English Immersion

The College of Education offers the following courses for practicing teachers to obtain a full Arizona SEI Endorsement:

- ESL-523 - English Language Teaching Foundations & Methodologies
- ESL-533 - Advanced Methodologies of SEI

Undergraduate Programs

Learners are given the choice of undergraduate study in the areas of early childhood education, elementary education, and secondary education with an emphasis in an academic content area, and elementary/special education. The Arizona state-approved programs lead to initial teacher licensure in Arizona. College of Education learners are responsible for contacting their state Department of Education or Licensing Department for licensure requirements and program approval.

The programs are designed to enable learners to demonstrate competency in essential pedagogical and content knowledge, skills, and dispositions that are based upon the Interstate Teacher Assessment and Support Consortium (InTASC) principles and/or the standards of specialized professional associations, depending on the program.

Eligibility for initial educator certification in Washington is based on completion of a state-approved educator preparation program. This program is approved in Arizona. Even though you may be residing in Washington while in this program, your application for educator certification in Washington will be processed as an out-of-state application. Go to <http://pathway.pesb.wa.gov/outofstate> for more information. Teachers are advised to contact their individual school districts as to whether this program may qualify for teacher advancement.

Bachelor of Science in Early Childhood Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Science in Early Childhood Education program is designed for students seeking initial licensure in the field of early childhood education. The

format and courses of this regionally accredited program include instructional strategies, Montessori and other teaching methodologies, assessment techniques, theories of early childhood growth and development, and the effect of family and cultural diversity on early childhood. Courses are taught by experts in their respective fields who share knowledge and experience in areas of early childhood education and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the National Association for the Education of Young Children (NAEYC). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in early childhood field experiences that guide students through 130 hours of observational and practice-based experiences. Teacher candidates also complete a 16-week student teaching experience that includes eight weeks in a Birth – Pre-K classroom and eight weeks in a K-3 classroom. Graduates of this program are eligible for an early childhood teaching credential in the state of Arizona.

Degree Requirements

Total General Education	34-40 credits
Total Early Childhood Education Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Science in Early Childhood Education	120 credits
Total Practicum/Field Experience	135 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

HIS-144	U.S. History Themes	4 credits
ECE-130	Educational and Developmental Psychology for Early Childhood Educators	4 credits

Early Childhood Education Major

ECE-120	Early Childhood Foundations and the Teaching Profession	4 credits
SPD-200[†]	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ECE-220	Typical and Atypical Behaviors in Early Childhood	4 credits
ECE-210	Instructional Planning for Young Children	4 credits
GOV-260	Arizona Constitution & Government	1 credit
EDU-330^Δ	Social Justice for Educators	4 credits
ECE-230	Assessing, Monitoring, and Reporting Progress of Young Children	4 credits
ECE-300	Development of Health, Safety and Nutrition in Young Children	4 credits
EDU-354	Child Development: Prenatal to Adolescence	4 credits
ECE-340	Language and Early Literacy Development	4 credits
ECE-360	Family, Community, and Cultural Awareness in Early Childhood	4 credits
ESL-436N	Methods of Structured English Immersion for Early Childhood Education	3 credits
ECE-350	Literature as a Tool for Instruction	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ECE-400^Δ	Child Guidance and Management in Early Childhood Education	4 credits
ECE-450	Instructional Methodologies: Language Arts and the Creative Arts	4 credits
ECE-455	Instructional Methodologies: Mathematics	4 credits
ECE-460	Instructional Methodologies: Science	4 credits
ECE-465	Instructional Methodologies: Social Studies	4 credits

Student teaching must be taken as the last course in the program.

ECH-480^Ω	Student Teaching: Birth to Pre-School	6 credits
ECH-485^{Ω/}	Student Teaching: K-3	6 credits

Early Childhood Education Major 80 credits

Bachelor of Science in Early Childhood Education and Early Childhood Special Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

The Bachelor of Science in Early Childhood/Early Childhood Special Education dual licensure program is a degree for candidates seeking knowledge in the field of early childhood/early childhood special education development and teaching. The curriculum includes: social/emotional development and behavioral interventions; early language and literacy development; assessment, evaluation and reporting progress; and, child, family, and community collaboration and advocacy to promote the education of young children with and without exceptionalities. All courses are directly aligned with specialized professional teaching standards and the associated national content standards: Interstate Teacher Assessment and Support Consortium (InTASC) principles, International Society for Technology in Education Standards for Teachers (ISTE-T), National Association for the Education of Young Children (NAEYC) Standards for Initial and Advanced Early Childhood Preparation Programs, and the Council for Exceptional Children (CEC) Initial Special Educator Preparation Standards Early Childhood Specialist Set.. This regionally accredited and Arizona Department of Education approved degree program includes 235 field experience hours in special education, inclusive, and general education Birth – Grade 3 classrooms, with an emphasis on Birth – Pre-K experiences. Teacher candidates also complete a 16-week student teaching experience that includes eight weeks in a K-3 general education classroom, and eight weeks in a K-3 special education classroom. Graduates of this program are eligible for early childhood and early childhood special education teaching certification in Arizona.

Degree Requirements

Total General Education	34-40 credits
Total Early Childhood and Early Childhood Special Education Major	77 credits
Total Electives	3-9 credits
Total Bachelor of Science in Early Childhood and Early Childhood Special Education	120 credits
Total Practicum/Field Experience	235 hours

Early Childhood and Early Childhood Special Education Major

ECS-125^Ω	Foundations of Early Childhood and Special Education	4 credits
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MAT-150	Mathematics for Elementary Teachers I	4 credits
MAT-151	Mathematics for Elementary Teachers II	4 credits
ECS-220^Ω	Legal Aspects of Special Education with an Emphasis in Early Childhood	4 credits
ECS-235^Ω	Child Development Including Health, Safety, and Nutrition	4 credits
POS-301	Arizona and Federal Government	2 credits
EDU-330^Δ	Social Justice for Educators	4 credits
ECS-325^Ω	Child, Family, Cultural, Community Relationships, and Advocacy	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
ECS-425^Ω	Language, Literacy and Communication in Early Childhood/Special Education	4 credits
ECS-435^Ω	Assessment, Evaluation and Reporting for Early Childhood/Special Education	4 credits
ECS-320^{Δ/Ω}	Child Guidance and Classroom Management for Typical and Atypical Behaviors	4 credits
ECS-460^Ω	Birth – Pre-K Practicum I	4 credits
ECS-455^Ω	Developmentally Appropriate Instruction: STEM Subjects	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
ECS-450^Ω	Developmentally Appropriate Instruction: ELA, Social Studies, and Arts	4 credits
ECS-470^Ω	Birth – Pre-K Practicum II	4 credits

Student teaching must be taken as the last course in the program.

ECS-480A^Ω	Student Teaching- Kindergarten to Age 8/Grade 3: General Education Setting	6 credits
ECS-480B^Ω	Student Teaching- Kindergarten to Age 8/Grade 3: Special Education Setting	6 credits

Early Childhood and Early Childhood Special Education Major 77 credits

Bachelor of Science in Educational Studies (IP/Non-TL)

(Initial Program—Does Not Lead to Initial Teacher Licensure)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those who already licensed as teachers.

Grand Canyon University's Bachelor of Science in Educational Studies develops educators for opportunities outside of the traditional classroom. An educational studies degree provides foundational skills that focus on developing and applying fundamental pedagogical practices to a variety of settings. The bachelor's degree in educational studies also includes study of educational psychology, literacy, diversity, instructional technology, communications and classroom management. Teaching skills are a cornerstone for a variety of career opportunities. Traditionally, students graduating with an educational studies degree have been interested in education-related jobs that do not require traditional teacher certifications,

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [/] Honors Major Course | ^Ω Non-Transferable

including parks and recreation, non-profits, workplace training and community programs. After understanding the fundamentals of teaching and learning, students develop skills to effectively teach and train in diverse learning environments.

Degree Requirements

Total General Education	34-40 credits
Total Educational Studies Major	30 credits
Total Electives	20-26 credits
Total Bachelor of Science in Educational Studies	120 credits

Educational Studies Major

ELM-210	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits
EDU-225	Instructional Technology	4 credits
EDU-354	Child Development: Prenatal to Adolescence	4 credits
ELM-200	Child and Early Adolescent Development and Psychology	4 credits
EDU-330^A	Social Justice for Educators	4 credits
MGT-325	Managing Business Communications and Change	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
ECH-430	Early Childhood Literature	4 credits
EDU-480	Research-Based Methods and Strategies of Teaching English Language Arts	4 credits
ELM-250^A	Creating and Managing Engaging Learning Environments	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
BUS-340^A	Ethical and Legal Issues in Business	4 credits
SPD-300	Professional, Ethical and Legal Practices and Policies in Special Education	4 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
MGT-410	Servant Leadership	4 credits
Educational Studies Major		60 credits

Bachelor of Science in Elementary Education and Special Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is designed for students who seek an elementary or cross-categorical teaching license to teach children with special needs in the elementary classroom setting. The format and courses of this regionally accredited and Arizona-approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. Courses are taught by experts in their respective fields who share knowledge and experience in areas of learning disabilities, emotional and behavioral disabilities, and other physical and cognitive impairments. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles, Association for Childhood International standards, and/or Council for Exceptional Children standards. Opportunities are provided to apply concepts, theories, and research throughout

the program. Assignments within each course guide students through observational and practice-based experiences. Teacher candidates must have access to an elementary and elementary-special education classroom to complete the program assignments. Graduates of the program are prepared to work with special needs populations and implement individualized educational plans to accommodate the students' various learning, behavioral, and social needs. Teacher candidates must be prepared to complete a full-time, 16-week student teaching component at the end of the program. Eight weeks of student teaching are completed in a regular education setting. In addition, eight weeks are completed in an inclusion classroom, resource room, self-contained class, or in a special school, serving students with mild to moderate disabilities and must be completed with a certified special educator. Teacher candidates are responsible for contacting their state department of education for licensure requirements and program approval. Furthermore, applicants should consult the University Policy Handbook and a Student Services Counselor to obtain information regarding current policies and procedures inherent in a teacher licensure program.

Degree Requirements

Total General Education	34-40 credits
Total Elementary and Special Education Major	80 credits
Total Electives	0-6 credits
Bachelor of Science in Elementary Education and Special Education	120 credits
Total Practicum/Field Experience	200 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

ELM-200[†]	Child and Early Adolescent Development and Psychology	4 credits
HIS-144	U.S. History Themes	4 credits

Elementary Education and Special Education Major

MAT-150	Mathematics for Elementary Teachers I	4 credits
ELM-210	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits
MAT-151	Mathematics for Elementary Teachers II	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ELM 250^A	Creating and Managing Engaging Learning Environments	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
EDU-330^A	Social Justice for Educators	4 credits
SPD-300	Professional, Ethical and Legal Practices and Policies in Special Education	4 credits
SPD-470	Research-Based Methods for Teaching Math to Students with Exceptionalities	4 credits
GOV-260	Arizona Constitution and Government	1 credit
ESL-440N	Methods of Structured English Immersion for Elementary Education	3 credits

^A Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-310	Collaborations and Communications in Special Education	4 credits
SPD-320	Assessment and Eligibility in Special Education: MMD	4 credits
ELM-361	Instructional Methods and Strategies for Integrating Science and Health	4 credits
SPD-330	Language Development with Mild to Moderate Disabilities and Disorders	4 credits
SPD-400	Creating and Managing Mild to Moderate Learning Environments	4 credits
ELM-351	Methods and Strategies for Integrating Social Studies and the Arts	4 credits
SPD-480	Research-Based Methods for Teaching ELA to Students with Exceptionalities	4 credits

Student teaching must be taken as the last course in the program.

ELM-490A^Ω	Student Teaching for Elementary Education: Session A	6 credits
SPD-490B^Ω	Student Teaching – K-Grade 12 Special Education Mild to Moderate Setting	6 credits

Elementary and Special Education Major	80 credits
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Bachelor of Science in Elementary Education (IP/TL)

(Initial Program–Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Science in Elementary Education program is designed for students seeking initial licensure and preparing for a career as an elementary teacher. The format and courses of this regionally accredited and Arizona State Board of Education approved program include studies and practices in lesson planning and assessments, classroom management, social justice, family and cultural diversity, English as a Second Language, and instructional methods and strategies for a variety of content areas. Courses are taught by experts in their respective fields who share knowledge and experience in areas of elementary education and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC), the Association for Childhood Education International (ACEI), and the International Society for Technology in Education (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in elementary education field experiences that guide students through 120 hours of observational and practice-based experiences. Teacher candidates also complete a 15-week student teaching experience. Graduates of this program are eligible for an elementary education teaching credential in the state of Arizona.

Degree Requirements

Total General Education	34-40 credits
Total Elementary Education Major	68 credits
Total Electives	12-18 credits
Bachelor of Science in Elementary Education Major	120 credits
Total Practicum/Field Experience	120 hours

Elementary Education Major

MAT-150	Mathematics for Elementary Teachers I	4 credits
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HIS-144	U.S. History Themes	4 credits
ELM-200^Δ	Child and Early Adolescent Development and Psychology	4 credits
ELM-210	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits
MAT-151	Mathematics for Elementary Teachers II	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ELM-357	Fostering Student Engagement	4 credits
ELM-250^Δ	Creating and Managing Engaging Learning Environments	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
ELM-470	Methods and Strategies for Teaching Mathematics	4 credits
EDU-330^Δ	Social Justice for Educators	4 credits
EDU-470	Research-Based Methods and Strategies of Teaching Mathematics	4 credits
GOV-260	Arizona Constitution & Government	1 credit
ESL-440N	Methods of Structured English Immersion for Elementary Education	3 credits
ELM-361	Instructional Methods and Strategies for Integrating Science and Health	4 credits
ELM-351	Methods and Strategies for Integrating Social Studies and the Arts	4 credits
EDU-480	Research-Based Methods and Strategies of Teaching English Language Arts	4 credits
ELM-490^Ω	Student Teaching for Elementary Education Teacher Candidates	8 credits

Elementary Education Major	68 credits
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Bachelor of Science in Elementary Education with an Emphasis in Christian Education (IP/TL)

(Initial Program–Leads to Initial Teacher Licensure)

The Bachelor of Science in Elementary Education with an Emphasis in Christian Education is designed for students seeking initial licensure in the field of Elementary Education. The format and courses of this regionally accredited program include instructional strategies, teaching methodologies, assessment techniques, and Christian values and ethics. Courses are taught by experts in their respective fields who share knowledge and experience in areas of elementary education, Christian studies, and instructional practices prepared for a Christian learning environment. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC), Association for Childhood Education International (ACEI), and the Association of Christian Schools International (ACSI). Opportunities are provided to apply concepts, theories, and research throughout the program, particularly in elementary focused experiences that guide students through 130 hours of observational and practice-based experiences. Teacher candidates also complete a 15-week student teaching experience. Graduates of this program are eligible for an Elementary Education credential in the state of Arizona.

Degree Requirements

Total General Education	34-40 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

Total Elementary Education with an Emphasis in Christian Education Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Science in Elementary Education with an Emphasis in Christian Education	120 credits
Total Practicum/Field Experience	130 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

[HIS-144](#) U.S. History Themes 4 credits

(Included in General Education total credits, applied to the Critical Thinking competency.)

[MAT-150](#) Mathematics for Elementary Teachers I 4 credits

Elementary Education with an Emphasis in Christian Education Major

ELM-200 [‡]	Child and Early Adolescent Development and Psychology	4 credits
ELM-210	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits
BIB-106	Old Testament Survey	4 credits
MAT-151	Mathematics for Elementary Teachers II	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ELM-357	Fostering Student Engagement	4 credits
ELM-250	Creating and Managing Engaging Learning Environments	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
BIB-107	New Testament Survey	4 credits
ELM-470	Methods and Strategies for Teaching Mathematics	4 credits
EDU-330	Social Justice for Educators	4 credits
HTH-330	Christian Ethics	4 credits
GOV-260	Arizona Constitution & Government	1 credit
ESL-440N	Methods of Structured English Immersion for Elementary Education	3 credits
ELM-361	Instructional Methods and Strategies for Integrating Science and Health	4 credits
MIN-320	Christian Character Formation	4 credits
ELM-351	Methods and Strategies for Integrating Social Studies and the Arts	4 credits
EDU-455	Christian Education: Philosophies and Methods	4 credits
ELM-480	Methods and Strategies for Teaching English Language Arts	4 credits
ELM-490 ^Ω	Student Teaching for Elementary Education Teacher Candidates	8 credits

Elementary Education with an Emphasis in Christian Education Major 80 credits

Bachelor of Science in Elementary Education with an Emphasis in English as a Second Language (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is designed for students who seek an elementary teaching license to teach children who are English Learners in an elementary classroom setting. The format and courses of this regionally accredited and Arizona-approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. Courses are taught by experts in their respective fields who share knowledge and experience in areas of linguistics, second language acquisition, and curriculum development. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles, and Teachers of English to Speakers of Other Languages (TESOL) standards. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide students through 160 hours of observational and practice-based experiences. Teacher candidates must have access to an elementary and an ESL classroom to complete the program assignments. Graduates of the program qualify for the English as a Second Language (ESL) endorsement in the state of Arizona, as well as their Elementary Teacher license. Teacher candidates must be prepared to complete a full-time, 15-week student teaching component at the end of the program. The 15-week student teaching will be completed in a grades 1-8 ESL classroom and must be completed with a certified ESL teacher. Teacher candidates are responsible for contacting their state department of education for licensure requirements and program approval. Furthermore, applicants should consult the University Policy Handbook and a Student Services Counselor to obtain information regarding current policies and procedures inherent in a teacher licensure program.

Degree Requirements

Total General Education	34-40 credits
Total Elementary Education with an Emphasis in English as a Second Language Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Science in Elementary Education with an Emphasis in English as a Second Language	120 credits
Total Practicum/Field Experience	160 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

[HIS-144](#) U.S. History Themes 4 credits

(Included in General Education total credits, applied to the Critical Thinking competency.)

[MAT-150](#) Mathematics for Elementary Teachers I 4 credits

Elementary Education with an Emphasis in English as a Second Language Major

ELM-200 [‡]	Child and Early Adolescent Development and Psychology	4 credits
ELM-210	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits

[‡] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ESL-250	School, Community, and Family Culture	4 credits
MAT-151	Mathematics for Elementary Teachers II	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ELM-357	Fostering Student Engagement	
ELM-250^{A/}	Creating and Managing Engaging Learning Environments	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
ESL-352	Literacy Development for English Language Learners	4 credits
ELM-470	Methods and Strategies for Teaching Mathematics	4 credits
EDU-330^A	Social Justice for Educators	4 credits
ESL-341	Linguistics	4 credits
GOV-260	Arizona Constitution & Government	1 credit
ESL-440N	Methods of Structured English Immersion for Elementary Education	3 credits
ELM-361	Instructional Methods and Strategies for Integrating Science and Health	4 credits
ESL-358	ELL Curriculum and Methods of Instruction	4 credits
ELM-351	Methods and Strategies for Integrating Social Studies and the Arts	4 credits
ESL-365	ELL Assessment	4 credits
ELM-480	Methods and Strategies for Teaching English Language Arts	4 credits
ESL-490^Ω	Student Teaching for Elementary Education with an ESL Emphasis	8 credits
Elementary Education with an Emphasis in English as a Second Language Major		80 credits

Bachelor of Science in Elementary Education with an Emphasis in STEM (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Science in Elementary Education with an Emphasis in STEM program is designed for students who are preparing for a teaching career as an elementary STEM teacher, inclusive of elementary and middle school, and who are seeking initial teacher licensure. The format and courses of this regionally accredited and Arizona State Board of Education approved program include studies and practices in lesson planning and assessments, classroom management, social justice, family and cultural diversity, English as a Second Language, and instructional methods and strategies for a variety of content areas. This program emphasizes content knowledge to meet the needs of 21st century learners by specializing in STEM. Courses are taught by experts in their respective fields who share knowledge and experience in areas of elementary education and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC), the Association for Childhood Education International (ACEI), and the International Society for Technology in Education (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in elementary education field experiences that guide students through 130 hours of observational and practice-based experiences. Teacher candidates also complete a 15-week

student teaching experience. Graduates of this program are eligible for an elementary education teaching credential in the state of Arizona.

Degree Requirements

Total General Education	34-40 credits
Total Elementary Education with an Emphasis in STEM Major	76 credits
Total Electives	4-10 credits
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Total Bachelor of Science in Elementary Education with an Emphasis in STEM	120 credits
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Total Practicum/Field Experience	135 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

HIS-144	U.S. History Themes	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-150	Mathematics for Elementary Teachers I	4 credits
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Elementary Education with an Emphasis in STEM Major

ELM-200[/]	Child and Early Adolescent Development and Psychology	4 credits
ELM-210	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits
MAT-151	Mathematics for Elementary Teachers II	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ELM-357	Fostering Student Engagement	
ELM-250^{A/}	Creating and Managing Engaging Learning Environments	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
ELM-470	Methods and Strategies for Teaching Mathematics	4 credits
EDU-330^A	Social Justice for Educators	4 credits
GOV-260	Arizona Constitution & Government	1 credit
ESL-440N	Methods of Structured English Immersion for Elementary Education	3 credits
ELM-361	Instructional Methods and Strategies for Integrating Science and Health	4 credits
ELM-351	Methods and Strategies for Integrating Social Studies and the Arts	4 credits
ELM-480	Methods and Strategies for Teaching English Language Arts	4 credits
ELM-461	Instructional Methods for Science and Engineering	4 credits
ELM-463	STEM Tools in the Modern Classroom	4 credits
ELM-462	Interdisciplinary Teaching and Learning in STEM	4 credits
ELM-464	Three Dimensional Teaching in STEM Classrooms	4 credits
ELM-490^Ω	Student Teaching for Elementary Education Teacher Candidates	8 credits

^A Writing intensive course | ♦ Fulfills General Education requirement | [/] Honors Major Course | ^Ω Non-Transferable

Elementary Education with an Emphasis in STEM Major 76 credits

Bachelor of Science in Elementary Education with an Emphasis in Teaching Reading (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Science in Elementary Education with an Emphasis in Teaching Reading program is designed for students seeking initial teacher licensure and are preparing for a career as an elementary teacher. The format and courses of this regionally accredited and Arizona State Board of Education approved program include studies and practices in lesson planning and assessments, classroom management, social justice, family and cultural diversity, English as a Second Language, reading instruction and assessment and instructional methods and strategies for a variety of content areas crossing the span of Kindergarten through Grade 8. Courses are taught by experts in their respective fields who share knowledge and experience in areas of elementary education and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC), the Association for Childhood Education International (ACEI), and the International Society for Technology in Education (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly supporting reading during elementary education field experiences that guide teacher candidates through 120 hours of observational and practice-based experiences. Teacher candidates will be exposed to elementary learning environment practicums completed in a 15-week student teaching experience. Graduates of this program are eligible for an elementary education teaching credential in the state of Arizona..

Degree Requirements

Total General Education	34-40 credits
Total Elementary Education with an Emphasis in Teaching Reading Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Science in Elementary Education with an Emphasis in Teaching Reading	120 credits
Total Practicum/Field Experience	160 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

[HIS-144](#) U.S. History Themes 4 credits

(Included in General Education total credits, applied to the Critical Thinking competency.)

[MAT-150](#) Mathematics for Elementary Teachers I 4 credits

Elementary Education with an Emphasis in Teaching Reading Major

ELM-200 ^f	Child and Early Adolescent Development and Psychology	4 credits
ELM-210	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits

MAT-151	Mathematics for Elementary Teachers II	4 credits
REA-305	Children's Literature	4 credits
ELM-357	Fostering Student Engagement	4 credits
ELM-250 ^A	Creating and Managing Engaging Learning Environments	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
REA-365	Methods and Strategies for Reading Instruction	4 credits
ELM-470	Methods and Strategies for Teaching Mathematics	4 credits
REA-410	Assessment and Remediation of Reading Proficiency	4 credits
EDU-330 ^A	Social Justice for Educators	4 credits
GOV-260	Arizona Constitution & Government	1 credit
ESL-440N	Methods of Structured English Immersion for Elementary Education	3 credits
REA-420	Research-Based Reading Development and Interventions	4 credits
ELM-361	Instructional Methods and Strategies for Integrating Science and Health	4 credits
ELM-351	Methods and Strategies for Integrating Social Studies and the Arts	4 credits
ELM-480	Methods and Strategies for Teaching English Language Arts	4 credits
REA-460	Diagnosis and Remediation of Reading Proficiencies	4 credits
ELM-490 ^Ω	Student Teaching for Elementary Education Teacher Candidates	8 credits

Elementary Education with an Emphasis in Teaching Reading Major 76 credits

Graduate Programs

Learners are given the choice of graduate study for a Master of Education in the areas of elementary education, secondary education, early childhood education, special education, and educational administration. The Arizona state approved programs lead to initial teacher licensure in Arizona. College of Education learners are responsible for contacting their state Department of Education or Licensing Department for licensure requirements and program approval.

Master of Education (IP/Non-TL) programs are available in the areas of elementary education, secondary education, early childhood education, and special education. Master of Education (AP/CPE) programs are available in the following areas: special education for certified special educators; curriculum and instruction: reading/elementary or secondary; curriculum and instruction: technology; educational leadership; and teachers of English to speakers of other languages (TESOL). A Master of Arts in Teaching (AP/CPE) with an emphasis either in professional learning communities or teacher leadership is available as well. These programs do not lead to licensure.

The graduate program framework provides for the professional growth of the practitioner and permits demonstration of competency in essential pedagogical knowledge, skills, and dispositions that are based upon Interstate Teacher Assessment and Support Consortium (InTASC) principles, Interstate School Leaders Licensure Consortium/Educational Leadership

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

Constituent Council (ISLLC/ELCC) standards, and/or the standards of specialized professional associations, depending on the program. The framework is a cyclical process of inquiry, reflection, application, evaluation, and additional reflection. These elements are incorporated into activities and assessments in each course of a program through a combination of collaborative and individual work. Graduate programs in education are provided in two learning formats; both online and traditional campus courses are available to the learner.

Eligibility for initial educator certification in Washington is based on completion of a state-approved educator preparation program. This program is approved in Arizona. Even though you may be residing in Washington while in this program, your application for educator certification in Washington will be processed as an out-of-state application. Go to <http://pathway.pesb.wa.gov/outofstate> for more information. Teachers are advised to contact their individual school districts as to whether this program may qualify for teacher advancement.

The following programs are not intended to lead to teacher certification. Teachers in Washington are advised to contact their individual school districts as to whether this program may qualify for salary advancement. Programs: Master of Education in Early Childhood Education (IP/Non-TL); Master of Education in Educational Leadership (AP/CPE); Master of Education in Elementary Education (IP/Non-TL); Master of Education in Secondary Education (IP/Non-TL); Master of Education in Special Education (IP/Non-TL); and Master of Education in Teaching English to Speakers of Other Languages (AP/CPE).

Master of Arts in Autism Spectrum Disorders (AP/CPE)

(Advanced Program for Continuing Professional Education)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The Master of Arts in Autism Spectrum Disorders is designed for certified teachers who are interested in learning how to work more effectively with students with autism spectrum disorders (ASD). During the program of study, candidates survey the unique characteristics of students with ASD and the core challenges associated with language and communication, social skills, behavior, and processing. From this foundational knowledge, candidates design and implement program planning and service delivery. As a result, candidates demonstrate knowledge, skills and abilities in implementing evidence-based and multi-faceted methodologies and strategies necessary in teaching and engaging students with ASD. In addition, ASD specialist candidates collaborate as a member of a multi-disciplinary team with service providers and effectively interact with families.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TCH-539	Introduction to Educational Research	3 credits
TCH-520	Brain-Based Learning	3 credits
SPD-505	Foundations in Autism Spectrum Disorders	3 credits
SPD-515	Methods of Assessment for Autism Spectrum Disorders	3 credits

SPD-525	Applied Behavior Analysis and Autism Spectrum Disorders	3 credits
SPD-535	Policy and Ethics in Autism Spectrum Disorders	3 credits
SPD-545	Leadership and Collaboration in Autism Spectrum Disorders	3 credits
SPD-555	Life Skills and Transitions for Autism Spectrum Disorders	3 credits
SPD-565	Communication Strategies and Assistive Technologies for Autism Spectrum Disorders	3 credits
SPD-575^Ω	Capstone in Autism Spectrum Disorders	3 credits
Master of Arts in Autism Spectrum Disorders		32 credits

Master of Arts in Curriculum and Instruction (AP/CPE)

(Advanced Program for Continuing Professional Education)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The Master of Arts in Curriculum and Instruction program is designed for licensed K-12 educators who want to focus on strategies and skills needed to be curriculum designers, or instructional leaders at the classroom, school, district, or state level. The program of study includes coursework, research, and practical field experiences and provides graduates with a scholar/practitioner approach to curriculum development, delivery of material, and assessment of learning. The program also features a professional development component.

Geared toward, and prepared for, individuals who are already licensed as teachers, this curriculum and instruction program does not lead to licensure, but may lead to career advancement. Program applicants must submit a copy of a current teaching license or provide evidence of a minimum of one year of verified, full-time, teaching experience (Teacher Verification Form). Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide students through 90 hours of observational and practice-based experiences. Candidates must have access to a K-12 school classroom to complete the capstone course and program assignments. Graduates of the program are prepared to become specialists in curriculum at the K-12 classroom, school, district, and state level.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TCH-539	Introduction to Educational Research	3 credits
TCH-520	Brain-Based Learning	3 credits
EDU-522	Curriculum Design Theories	3 credits
EDU-524	Culturally Responsive Curriculum and Instruction	3 credits
EDU-551	Differentiated Instruction	3 credits
EDU-537	Leadership and Instructional Coaching	3 credits
EDU-546	Curriculum Mapping	3 credits
EDU-554	Methods of Instruction and Assessment	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

EDU-586	Developing and Implementing Professional Development	3 credits
EDU-588 ^Ω	Curriculum and Instruction Capstone	3 credits
Master of Arts in Curriculum and Instruction		32 credits

Master of Arts in Higher Education Student Affairs

The Master of Arts in Higher Education Student Affairs prepares professionals for a career in student affairs administration at higher education institutions. Graduates of this program will understand how student affairs administrators directly contribute to the social development, academic success, and overall well-being of students. Coursework includes foundational knowledge in student development theory and the history of Student Affairs while introducing topics relevant to the major service areas within student affairs. Areas of focus include operations management, campus community, health and safety, crisis management, spiritual life, housing, legal aspects of student affairs, and campus partnerships.

Degree Requirements

UNV-501 ^Ω	Introduction to Graduate Studies in the College of Education	2 credits
EDU-518	Introduction to Student Affairs	3 credits
EDU-528	Laws and Ethics in Student Affairs	3 credits
EDU-538	Servant Leadership in Student Affairs	3 credits
EDU-547	Student Development	3 credits
EDU-558	Crisis Management and Intervention	3 credits
EDU-567	Developing Student Leaders	3 credits
EDU-568	Operational Resource Management	3 credits
EDU-578	Culture and Team Building	3 credits
EDU-587	Community Development and Engagement on a University Campus	3 credits
EDU-595 ^Ω	Higher Education Student Affairs Capstone	3 credits
Master of Arts in Higher Education Student Affairs		32 credits

Master of Arts in Reading with an Emphasis in Elementary Education (AP/CPE)

(Advanced Program for Continuing Professional Education)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The Master of Arts in Reading with an Emphasis in Elementary Education degree is designed for current teaching professionals who would like to become reading specialists or literacy coaches to increase the educational and literacy success of grade K-8 students by working with them to develop and enhance their reading abilities. Other topics of focus include: foundational theory and research, developmental learning and assessments, corrective reading assessment, and instructional leadership and literacy coaching. Applicants to this program are required to submit a copy of a current teaching license or provide evidence of a minimum of one year of teaching experience. The format and courses of this regionally accredited program are aligned to the

International Literacy Association (ILA) and the Interstate Teacher Assessment and Support Consortium (InTASC) standards. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of curriculum and instruction, cognition, emergent literature, linguistics, phonics, literacy, assessments, and developmental and corrective reading processes. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide students through observational and practice-based experiences. Students must have access to an elementary classroom to complete the practicum course and program assignments.

Degree Requirements

UNV-501 ^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TCH-539	Introduction to Educational Research	3 credits
TCH-520	Brain-Based Learning	3 credits
REA-500	Foundations in Language and Literacy	3 credits
REA-510	Survey of Reading Assessments	3 credits
REA-515	Advanced Studies in Reading Assessment Systems	3 credits
REA-550	Literate Environments	3 credits
REA-560	Professional Learning and Leadership in Literacy	3 credits
REA-520	Introductory Instructional Methods for Elementary Reading and Writing	3 credits
REA-540	Advanced Studies in Methods for Elementary Content Reading and Writing	3 credits
REA-570 ^Ω	Elementary Practicum in Reading	3 credits
Master of Arts in Reading with an Emphasis in Elementary Education		32 credits

Master of Arts in Reading with an Emphasis in Secondary Education (AP/CPE)

(Advanced Program for Continuing Professional Education)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The Master of Arts in Reading with an Emphasis in Secondary Education degree is designed for current teaching professionals who would like to become reading specialists or literacy coaches to increase the educational and literacy success of grade 6-12 students by working with them to develop and enhance their reading abilities. Other topics of focus include: foundational theory and research, developmental learning and assessments, corrective reading assessment, and instructional leadership and literacy coaching. Applicants to this program are required to submit a copy of a current teaching license or provide evidence of a minimum of one year of teaching experience. The format and courses of this regionally accredited program are aligned to the International Literacy Association (ILA) and the Interstate Teacher Assessment and Support Consortium (InTASC) standards. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of curriculum and instruction, cognition, emergent literature, linguistics, literacy, assessments, and developmental and corrective reading

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

processes. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide students through observational and practice-based experiences. Students must have access to a secondary classroom to complete the practicum course and program assignments.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TCH-539	Introduction to Educational Research	3 credits
TCH-520	Brain-Based Learning	3 credits
REA-500	Foundations in Language and Literacy	3 credits
REA-510	Survey of Reading Assessments	3 credits
REA-515	Advanced Studies in Reading Assessment Systems	3 credits
REA-550	Literate Environments	3 credits
REA-560	Professional Learning and Leadership in Literacy	3 credits
REA-525	Introductory Instructional Methods for Secondary Reading and Writing	3 credits
REA-545	Advanced Studies in Methods for Secondary Content and Writing	3 credits
REA-580^Ω	Secondary Practicum in Reading	3 credits
Master of Arts in Reading with an Emphasis in Secondary Education		32 credits

Master of Arts in Teaching English to Speakers of Other Languages (TESOL) (AP/CPE)

(Advanced Program for Continuing Professional Education)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The Master of Arts in Teaching English to Speakers of Other Languages (TESOL) is designed for teaching professionals with an interest in working with English language learners (ELLs) in or out of the classroom. The format and courses of this regionally accredited program are tailored to meet the needs of the adult learner and to maximize strengths that the working educator possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of linguistics, second language acquisition, and curriculum development. All courses are directly aligned with the Interstate Teacher Assessment and Support Consortium (InTASC) and the Standards for the Recognition of Initial TESOL Programs in P-12 ESL Teacher Education (TESOL). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in TESOL field experiences and a practicum that guide students through 110 hours of observational and practice-based experiences. Candidates must have access to a P-12 classroom with ESL students to complete the practicum course and program assignments. Graduates of the program may be eligible for the ESL and/or the BLE endorsement in the state of Arizona, and are prepared to become leaders in ESL/BLE/TESOL at the P-12 classroom, school, and district level.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TCH-539	Introduction to Educational Research	3 credits
TCH-520	Brain-based Learning	3 credits
TSL-532	Foundations of Instruction for English Language Learners	3 credits
TSL-550	School, Community, and Family Culture	3 credits
TSL-541	Linguistics	3 credits
TSL-552	Literacy in Bilingual Settings	3 credits
TSL-558	ELL and Bilingual Curriculum and Methods of Instruction	3 credits
TSL-565	ELL and Bilingual Assessment	3 credits
TSL-567	Methods of Teaching and Evaluating ELLs with Special Needs	3 credits
TSL-590^Ω	BLE or TESOL Practicum	3 credits
Master of Arts in Teaching English to Speakers of Other Languages (TESOL)		32 credits

Master of Education in Early Childhood Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Master of Education in Early Childhood Education program is designed for students seeking initial licensure in the field of early childhood education. The format and courses of this regionally accredited program include instructional strategies, Montessori and other teaching methodologies, assessment techniques, theories of early childhood growth and development, and the effect of family and cultural diversity on early childhood. Courses are taught by experts in their respective fields who share knowledge and experience in areas of early childhood education and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the National Association for the Education of Young Children (NAEYC). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in early childhood field experiences that guide students through 118 hours of observational and practice-based experiences. Teacher candidates also complete a 16-week student teaching experience that includes eight weeks in a Birth – Pre-K classroom and eight weeks in a K-3 classroom. Graduates of this program are eligible for an early childhood teaching credential in the state of Arizona.

Degree Requirements

ECE-501^Ω	Introduction to Early Childhood Foundations and Graduate Studies	3 credits
ECE-510	Typical and Atypical Behaviors of Young Children	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ECE-520	Instructional Planning, Assessment and Reporting in Early Childhood	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ECE-530	Health, Safety, and Nutrition in Growth and Development of Early Learners	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ECE-540	Developing Language and Early Literacy in Young Children	3 credits
ECE-560	Family Engagement and Cultural Awareness in Early Childhood	3 credits
ECE-600	Creating and Managing the Early Childhood Environment	3 credits
ECE-620	Instructional Methodologies: Language Arts and the Creative Arts	3 credits
ECE-630	Instructional Methodologies: Mathematics	3 credits
ECE-640	Instructional Methodologies: Science and Social Studies	3 credits
ECH-680^Ω	Student Teaching: Birth to Pre-School	6 credits
ECH-685^Ω	Student Teaching: K-3	6 credits
Master of Education in Early Childhood Education		48 credits
Total Practicum/Field Experience Hours		118 hours

Master of Education in Early Childhood Education (IP/TL) *Nevada ARL*

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Master of Education in Early Childhood Education program is designed for candidates interested in the education of students Birth through age 8 who are also seeking alternative route licensure in the state of Nevada. The format and courses of this regionally accredited and Nevada-approved program are tailored to meet the needs of the young learners and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of early childhood education and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the National Association for the Education of Young Children (NAEYC). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in early childhood education field experiences that guide students through 128 hours of observational and practice-based experiences. The final semester of this program includes a full-time, 15-week student teaching component. Teacher candidates are required to produce documentation of successful completion of required Nevada teaching exams that include Praxis CORE Academic Skills, Principals of Learning and Teaching (PLT), and Praxis Early Childhood content knowledge in order to progress in this program.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
EDU-526^Ω	Family and Community Engagement	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ECH-515	Early Literacy Development	4 credits
ESL-523	English Language Teaching Foundations & Methodologies	3 credits
ECH-520	Foundations of Early Childhood	4 credits
ECH-525	Child Guidance, Management, and the Environment	4 credits

ECH-530	Introduction to the Exceptional Learner	4 credits
ECH-635	Developmental and Functional Assessment: Birth to Age 8	4 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ECH-640	Instructional Teaching Methodologies: Language, Math, Science, Social Studies, and the Arts	4 credits
ECH-680^Ω	Student Teaching: Birth to Pre-School	6 credits
ECH-685^Ω	Student Teaching: K-3	6 credits
Master of Education in Early Childhood Education		50 credits
Total Practicum/Field Experience Hours		128 hours

Master of Education in Early Childhood Education (IP/Non-TL)

(Initial Program—Does Not Lead to Initial Teacher Licensure)

Grand Canyon University's Master of Education in Early Childhood Education NITL program is designed for students seeking information in the field of early childhood education. The format and courses of this regionally accredited program include instructional strategies, Montessori and other teaching methodologies, assessment techniques, theories of early childhood growth and development, and the effect of family and cultural diversity on early childhood. Courses are taught by experts in their respective fields who share knowledge and experience in areas of early childhood education, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the National Association for the Education of Young Children (NAEYC). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in early childhood field experiences that guide students through 118 hours of observational and practice-based experiences (36 credits). This program does not lead to licensure.

Degree Requirements

ECE-501^Ω	Introduction to Early Childhood Foundations and Graduate Studies	3 credits
ECE-510	Typical and Atypical Behaviors of Young Children	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ECE-520	Instructional Planning, Assessment and Reporting in Early Childhood	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ECE-530	Health, Safety, and Nutrition in Growth and Development of Early Learners	3 credits
ECE-540	Developing Language and Early Literacy in Young Children	3 credits
ECE-560	Family Engagement and Cultural Awareness in Early Childhood	3 credits
ECE-600	Creating and Managing the Early Childhood Environment	3 credits
ECE-620	Instructional Methodologies: Language Arts and the Creative Arts	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

ECE-630	Instructional Methodologies: Mathematics	3 credits
ECE-640	Instructional Methodologies: Science and Social Studies	3 credits
Master of Education in Early Childhood Education		36 credits
Total Practicum/Field Experience Hours		118 hours

Master of Education in Early Childhood Education and Early Childhood Special Education (IP/TL)

(Initial Program—Leads to Teacher Licensure)

Grand Canyon University's Master of Education in Early Childhood and Early Childhood Special Education dual licensure program is a degree for candidates seeking to build skills and apply best-practice pedagogy and methodologies in the field of early childhood/early childhood special education development. Graduates of this Master's program are prepared to become informed educators in public and private schools and other settings requiring a teaching license. The curriculum includes: social/emotional development and behavioral interventions; early language and literacy development; assessment, evaluation and reporting progress; and, child, family, and community collaboration and advocacy to promote the education of young children with and without exceptionalities. All courses are directly aligned with specialized professional teaching standards and the associated national content standards: Interstate Teacher Assessment and Support Consortium (InTASC) principles, International Society for Technology in Education Standards for Teachers (ISTE-T), National Association for the Education of Young Children (NAEYC) Standards for Initial and Advanced Early Childhood Preparation Programs, and the Council for Exceptional Children (CEC) Initial Special Educator Preparation Standards Early Childhood Specialist Set. This regionally accredited and Arizona Department of Education approved degree program includes 224 hours of field experience in special education, inclusive, and general education Birth – Grade 3 classrooms, with an emphasis on Birth – Pre-K experiences. Teacher candidates also complete a 16-week student teaching experience that includes eight weeks in a K-3 general education classroom, and eight weeks in a K-3 special education classroom. Graduates of this program are eligible for early childhood and early childhood special education teaching certification in Arizona.

Degree Requirements

ECS-501 ^Ω	Foundational Studies in Early Childhood and Special Education	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ELM-540	Foundational Literacy Skills	3 credits
ECS-555 ^Ω	Child Development Including Health, Safety, and Nutrition	3 credits
ECS-560 ^Ω	Child, Family, Cultural, Community Relationships, and Advocacy	3 credits
ECS-570 ^Ω	Language, Literacy, and Communication in Early Childhood/Special Education	3 credits
ECS-590 ^Ω	Assessment, Evaluation, and Reporting for Early Childhood/Special Education	3 credits

ECS-550 ^Ω	Child Guidance and Classroom Management for Typical and Atypical Behaviors	3 credits
ECS-585 ^Ω	Developmentally Appropriate Instruction: STEM Subjects	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ECS-580 ^Ω	Developmentally Appropriate Instruction: ELA, Social Studies, and Arts	3 credits
ECS-565 ^Ω	Birth – Pre-K Practicum I	4 credits
ECS-567 ^Ω	Birth – Pre-K Practicum II	4 credits
ECS-595A ^Ω	Student Teaching- Kindergarten to Age 8/Grade 3: General Education Setting	6 credits
ECS-595B ^Ω	Student Teaching- Kindergarten to Age 8/Grade 3: Special Education Setting	6 credits
Master of Education in Early Childhood and Early Childhood Special Education		53 credits
Total Practicum/Field Experience Hours		224 hours

Master of Education in Early Childhood Education and Early Childhood Special Education (IP/Non-TL)

(Initial Program—Does Not Lead to Teacher Licensure)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

Grand Canyon University's Master of Education in Early Childhood and Early Childhood Special Education Non-Initial Licensure (NITL) program is a degree for candidates seeking to build skills and apply best-practice pedagogy and methodologies in the field of early childhood/early childhood special education development. This program does not lead to licensure. Graduates of this Master's program are prepared to become informed educators in settings that do not require a teaching license. The curriculum includes: social/emotional development and behavioral interventions; early language and literacy development; assessment, evaluation and reporting progress; and, child, family, and community collaboration and advocacy to promote the education of young children with and without exceptionalities. All courses are directly aligned with specialized professional teaching standards and the associated national content standards: Interstate Teacher Assessment and Support Consortium (InTASC) principles, International Society for Technology in Education Standards for Teachers (ISTE-T), National Association for the Education of Young Children (NAEYC) Standards for Initial and Advanced Early Childhood Preparation Programs, and the Council for Exceptional Children (CEC) Initial Special Educator Preparation Standards Early Childhood Specialist Set. This regionally accredited degree program includes 104 hours of field experience in special education, inclusive, and general education Birth – Grade 3 classrooms.

Degree Requirements

ECS-501 ^Ω	Foundational Studies in Early Childhood and Special Education	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ELM-540	Foundational Literacy Skills	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ECS-555 ^Ω	Child Development Including Health, Safety, and Nutrition	3 credits
ECS-560 ^Ω	Child, Family, Cultural, Community Relationships, and Advocacy	3 credits
ECS-570 ^Ω	Language, Literacy, and Communication in Early Childhood/Special Education	3 credits
ECS-590 ^Ω	Assessment, Evaluation, and Reporting for Early Childhood/Special Education	3 credits
ECS-550 ^Ω	Child Guidance and Classroom Management for Typical and Atypical Behaviors	3 credits
ECS-585 ^Ω	Developmentally Appropriate Instruction: STEM Subjects	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ECS-580 ^Ω	Developmentally Appropriate Instruction: ELA, Social Studies, and Arts	3 credits
Master of Education in Early Childhood and Early Childhood Special Education		33 credits
Total Practicum/Field Experience Hours		104 hours

Master of Education in Educational Administration (AP/PL)

(Advanced Program for Principal Licensure)

This program is designed for individuals interested in educational administration in the PK-12 setting and seeking a K-12 principal's license. Applicants for this program are required to provide documentation of two years of verified teaching experience. The Interstate School Leaders Licensure Consortium (ISLLC) and the Educational Leadership Constituent Council (ELCC) standards form the foundation of this regionally accredited and Arizona-approved program of study. Courses are taught by expert practitioners in their respective fields who share knowledge and experience in areas of school leadership, administrative/leadership foundations, creating/sustaining positive school cultures, PK-12 legal issues, public school finance, curriculum development, professional development/empowerment of teachers, and instructional leadership. As an opportunity to apply theory to practice, practicum/field experience hours are embedded throughout the program. The Action Planning process frames these experiences. Field work within each course guides Principal Candidates through observation, practice, and hands-on leadership experiences. Principal Candidates must be prepared to complete three clinical internships for a total of 270 hours. Graduates of the program are well-prepared to be informed educational administrators in public and private schools, and other settings requiring a principal's license.

Degree Requirements

EAD-501 ^Ω	Educational Administration: Foundations for the Developing Leader	3 credits
EAD-505	Education Law	3 credits
EAD-510	Education Finance	3 credits
EAD-519	Clinical Internship I: Learner-Centered Leadership	3 credits
EAD-513	Shaping School Culture	3 credits

EAD-520	Strengthening Curricular Programs to Promote Continuous School Improvement	3 credits
EAD-523	Developing Professional Capacity	3 credits
EAD-529	Clinical Internship II: Learner-Centered Leadership	3 credits
EAD-530	Improving Teacher Performance and Self-efficacy	3 credits
EAD-533	Developing and Empowering Instructional Leaders	3 credits
EAD-536	Strategic Leadership and Management in the Principalship	3 credits
EAD-539	Clinical Internship III: Learner-Centered Leadership	3 credits

Master of Education in Educational Administration	36 credits
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Total Practicum/Field Experience Hours	360 hours
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The Arizona Department of Education requires all individuals applying for certification in the state of Arizona to take a US/Arizona Constitution course (POS-301) and pass the professional knowledge test of the Arizona Education Proficiency Assessment. The Arizona Department of Education requires all individuals applying for certification in the state of Arizona to take 6 credits of Structured English Immersion.

POS-301	Arizona and Federal Government	2 credits
ESL-523	English Language Teaching Foundations & Methodologies	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits

Master of Education in Educational Leadership (AP/CPE)

(Advanced Program for Continuing Professional Education)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

This program is designed for individuals interested in educational administration in the PK-12 setting and social services settings for children, but who must postpone a school site-based administrative internship or do not choose to seek a K-12 principal's license. The Interstate School Leaders Licensure Consortium (ISLLC) and the Educational Leadership Constituent Council (ELCC) standards form the foundation of this program of study. Courses are taught by expert practitioners in their respective fields who share knowledge and experience in areas of school and business leadership, administrative foundations, organizational theory and culture, PK-12 legal issues, public school finance, curriculum development, and instructional and team leadership. As an opportunity to apply theory to practice, practicum/field experience hours are embedded throughout the program. The Action Inquiry process frames these experiences. Benchmark assessments within each course guide students through observation, practice, and hands-on leadership experiences. Graduates of the program are prepared to become educational leaders in the home, church, private schools, and other settings not requiring a principal's license. To be admitted into this program, two years of teaching experience is strongly recommended. Students who complete this program and then desire to secure a principal's license will be required to complete

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

the program requirements of the Master of Education in Educational Administration.

Degree Requirements

EAD-501 ^Ω	Educational Administration: Foundations for the Developing Leader	3 credits
EAD-505	Education Law	3 credits
EAD-510	Education Finance	3 credits
EDU-586	Developing and Implementing Professional Development	3 credits
EAD-513	Shaping School Culture	3 credits
EAD-520	Strengthening Curricular Programs to Promote Continuous School Improvement	3 credits
EAD-523	Developing Professional Capacity	3 credits
EAD-530	Improving Teacher Performance and Self-efficacy	3 credits
EAD-533	Developing and Empowering Instructional Leaders	3 credits
EAD-536	Strategic Leadership and Management in the Principalship	3 credits
Master of Education in Educational Leadership		30 credits
Total Practicum/Field Experience Hours		90 hours

Master of Education in Elementary Education (IP/TL)

(Initial Program-Leads to Initial Teacher Licensure)

The Master of Education in Elementary Education (Eligible for Institutional Recommendation/Credential) program is designed for individuals interested in the education of children in elementary or middle school who are seeking initial teacher licensure. The format and courses of this regionally accredited and Arizona-approved program are tailored to meet the needs of the adult student and to maximize the content knowledge that the teacher candidate will possess upon graduation. Courses are taught by experts in their respective fields who share knowledge and experience in areas of early childhood education, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC), and the Association for Childhood Educational International (ACEI). Graduates of the Master of Education in Elementary Education program are prepared to become informed educators in public and private schools and other settings requiring a teaching license. Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in elementary education field experiences that guide students through 104 hours of observational and practice-based experiences.

Degree Requirements

EDU-525 ^Ω	Foundations in Elementary Education Graduate Studies	3 credits
ELM-500	Child and Early Adolescent Development and Psychology	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
ELM-510	Creating and Managing Engaging Learning Environments	3 credits
ELM-555	Instructional Planning and Assessment for Elementary Teacher Candidates	3 credits

ELM-535	Strategies for Student Engagement	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ELM-540	Foundational Literacy Skills	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ELM-570	Methods and Strategies of Teaching and Integrating Science and Health	3 credits
ELM-550	Methods & Strategies of Teaching & Integrating Social Studies & the Arts	3 credits
ELM-560	Methods and Strategies of Teaching Mathematics	3 credits
ELM-580	Methods and Strategies of Teaching English Language Arts	3 credits
ELM-590 ^Ω	Student Teaching for Elementary Teacher Candidates	8 credits
Master of Education in Elementary Education		47 credits
Total Practicum/Field Experience Hours		104 hours

Master of Education in Elementary Education (IP/TL) Nevada ARL

(Initial Program-Leads to Initial Teacher Licensure)

Grand Canyon University's Master of Education in Elementary Education program is designed for candidates interested in the education of students in grades 1-8 who are also seeking alternative route licensure in the state of Nevada. The format and courses of this regionally accredited and Nevada-approved program are tailored to meet the needs of the young learners and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of elementary education and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the Association for Childhood Educational International (ACEI). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in elementary education field experiences that guide students through 118 hours of observational and practice-based experiences. The final semester of this program includes a full-time, 15-week student teaching component. Teacher candidates are required to produce documentation of successful completion of required Nevada teaching exams that include the Praxis CORE Academic Skills, Principals of Learning and Teaching (PLT), and Praxis Elementary Education content knowledge in order to progress in this program.

Degree Requirements

EDU-525 ^Ω	Foundations in Elementary Education Graduate Studies	3 credits
EDU-526 ^Ω	Family and Community Engagement	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
ELM-500	Child and Early Adolescent Development and Psychology	3 credits
ELM-510	Creating and Managing Engaging Learning Environments	3 credits
ELM-520	Instructional Planning for Elementary Teacher Candidates	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ELM-530	Assessment and Evaluation for Elementary Teacher Candidates	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ELM-540	Foundational Literacy Skills	3 credits
ESL-523	English Language Teaching Foundations & Methodologies	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ELM-550	Methods & Strategies of Teaching & Integrating Social Studies & the Arts	3 credits
ELM-560	Methods and Strategies of Teaching Mathematics	3 credits
ELM-570	Methods and Strategies of Teaching and Integrating Science and Health	3 credits
ELM-580	Methods and Strategies of Teaching English Language Arts	3 credits
ELM-590^Ω	Student Teaching for Elementary Teacher Candidates	8 credits
Master of Education in Elementary Education		53 credits
Total Practicum/Field Experience Hours		112 hours

Master of Education in Elementary Education (IP/Non-TL)

(Initial Program–Does Not Lead to Teacher Licensure)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The program is designed for any individual interested in the education of children in elementary or middle school. The format and courses of this regionally accredited program are tailored to meet the needs of the adult learner and to maximize the content knowledge that teacher candidates possess upon graduation. Courses are taught by experts in their respective fields who share knowledge and experience in areas of educational psychology, philosophy, methodology, and curriculum development. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within many of the courses guide students through more than 100 hours of observational and practice-based experiences. Students have the option of transferring into the version of the program that leads to initial teacher licensure up to, but not after, the time of degree posting. Graduates of the program are prepared to become informed educators in the home, church, private schools, and other settings not requiring a teaching license. This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

Degree Requirements

EDU-525^Ω	Foundations in Elementary Education Graduate Studies	3 credits
ELM-500	Child and Early Adolescent Development and Psychology	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
ELM-510	Creating and Managing Engaging Learning Environments	3 credits

ELM-555	Instructional Planning and Assessment for Elementary Teacher Candidates	3 credits
ELM-535	Strategies for Student Engagement	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
ELM-540	Foundational Literacy Skills	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
ELM-570	Methods and Strategies of Teaching and Integrating Science and Health	3 credits
ELM-550	Methods & Strategies of Teaching & Integrating Social Studies & the Arts	3 credits
ELM-560	Methods and Strategies of Teaching Mathematics	3 credits
ELM-580	Methods and Strategies of Teaching English Language Arts	3 credits
Master of Education in Elementary Education		39 credits
Total Practicum/Field Experience Hours		104 hours

Master of Education in Secondary Education with an Emphasis in Humanities (IP/TL)

(Initial Program–Leads to Initial Teacher Licensure)

Grand Canyon University's Master of Education in Secondary Education with Emphasis in Humanities ITL program is designed for candidates interested in the education of children in the Humanities areas in grades 5-12 who are also seeking initial teaching licensure. The format and courses of this regionally accredited and Arizona-approved program are tailored to meet the needs of the adult learner and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of secondary education, humanities, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the International Society of Technology Educators (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in secondary education field experiences that guide students through 100 hours of observational and practice-based experiences. The final semester of this program includes a full-time, 15-week student teaching component. Teacher candidates are responsible for contacting their state department of education for licensure requirements and program approval. Teacher candidates are required to produce documentation of successful completion of the content area exam(s) in a Humanities field in order to student teach. Teacher candidates who student teach in a middle grades setting may be eligible for the middle grades endorsement, in addition to the Secondary Education teacher license in the state of Arizona.

Degree Requirements

SEC-502^Ω	Foundations in Secondary Education for Graduate Students	3 credits
POS-500	U.S. and Arizona Constitution for Teacher Candidates	3 credits
SEC-506	Early Adolescent and Adolescent Psychology	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

SEC-510	Creating and Managing Engaging Learning Environments	3 credits
SEC-581	Middle and Secondary Curriculum and Instruction for Humanities Teachers	3 credits
SEC-516	Assessment and Evaluation for Humanities Teachers	3 credits
SEC-525	Methods and Strategies for Middle and High School Teachers	3 credits
SEC-540	Adolescent Literacy	3 credits
ESL-545	Methods of Structured English Immersion for Secondary Education	3 credits
SEC-530	Integrating Humanities Methods for Middle and High School Instruction	3 credits

Student teaching must be taken as the last course in the program.

SEC-590 ^Ω	Student Teaching: Secondary Education	8 credits
Master of Education in Secondary Education with an Emphasis in Humanities		41 credits
Total Practicum/Field Experience Hours		101 hours

Master of Education in Secondary Education with an Emphasis in Humanities (IP/Non-TL)

(Initial Program—Does Not Lead to Teacher Licensure)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

Grand Canyon University's Master of Education in Secondary Education with Emphasis in Humanities ITL program is designed for candidates interested in the education of children in the Humanities areas in grades 5-12. The format and courses of this regionally accredited and Arizona-approved program are tailored to meet the needs of the adult learner and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of secondary education, humanities, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the International Society of Technology Educators (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in secondary education field experiences that guide students through 100 hours of observational and practice-based experiences. This program does not lead to licensure.

Degree Requirements

SEC-502 ^Ω	Foundations in Secondary Education for Graduate Students	3 credits
POS-500	U.S. and Arizona Constitution for Teacher Candidates	3 credits
SEC-506	Early Adolescent and Adolescent Psychology	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
SEC-510	Creating and Managing Engaging Learning Environments	3 credits
SEC-581	Middle and Secondary Curriculum and Instruction for Humanities Teachers	3 credits

SEC-516	Assessment and Evaluation for Humanities Teachers	3 credits
SEC-525	Methods and Strategies for Middle and High School Teachers	3 credits
SEC-540	Adolescent Literacy	3 credits
ESL-545	Methods of Structured English Immersion for Secondary Education	3 credits
SEC-530	Integrating Humanities Methods for Middle and High School Instruction	3 credits
Master of Education in Secondary Education with an Emphasis in Humanities		33 credits
Total Practicum/Field Experience Hours		101 hours

Master of Education in Secondary Humanities Education (IP/TL) Nevada ARL

(Initial Program—Leads to Teacher Licensure)

Grand Canyon University's Master of Education in Secondary Humanities Education program is designed for candidates interested in the education of adolescents and young adults in language arts, social studies, art or music in grades 6-12 who are also seeking alternative route licensure in the state of Nevada. The format and courses of this regionally accredited and Nevada-approved program are tailored to meet the needs of the adult learner and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of secondary education, humanities, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the International Society of Technology Educators (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in secondary education field experiences that guide students through 126 hours of observational and practice-based experiences. The final semester of this program includes a full-time, 15-week student teaching component. Teacher candidates are required to produce documentation of successful completion of required Nevada teaching exams that include content exams in language arts, social studies, art, or music in order to progress in this program.

Degree Requirements

SEC-501 ^Ω	Foundations in Education for Graduate Studies	3 credits
EDU-526 ^Ω	Family and Community Engagement	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
POS-500	U.S. and Arizona Constitution for Teacher Candidates	3 credits
SEC-505	Adolescent Development and Psychology	3 credits
SEC-510	Creating and Managing Engaging Learning Environments	3 credits
SEC-515	Assessment and Evaluation for Middle and High School Teachers	3 credits
SEC-525	Methods and Strategies for Middle and High School Teachers	3 credits
SEC-540	Adolescent Literacy	3 credits
SEC-530	Integrating Humanities Methods for Middle and High School Instruction	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SEC-580	Curriculum and Instructional Planning for Middle and High School Teachers	3 credits
SEC-590 ^Ω	Student Teaching: Secondary Education	8 credits
Master of Education in Secondary Humanities Education		44 credits
Total Practicum/Field Experience Hours		128 hours

Master of Education in Secondary Education with an Emphasis in STEM (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Master of Education in Secondary Education with Emphasis in STEM ITL program is designed for candidates interested in the education of children in STEM areas in grades 5-12 who are also seeking initial teaching licensure. The format and courses of this regionally accredited and Arizona-approved program are tailored to meet the needs of the adult learner and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of secondary education, STEM, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the International Society of Technology Educators (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in secondary education field experiences that guide students through 100 hours of observational and practice-based experiences. The final semester of this program includes a full-time, 15-week student teaching component. Teacher candidates are responsible for contacting their state department of education for licensure requirements and program approval. Teacher candidates are required to produce documentation of successful completion of the content area exam(s) in a STEM field in order to student teach. Teacher candidates who student teach in a middle grades setting may be eligible for the middle grades endorsement, in addition to the Secondary Education teacher license in the state of Arizona.

Degree Requirements

SEC-502 ^Ω	Foundations in Secondary Education for Graduate Students	3 credits
POS-500	U.S. and Arizona Constitution for Teacher Candidates	3 credits
SEC-506	Early Adolescent and Adolescent Psychology	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
SEC-510	Creating and Managing Engaging Learning Environments	3 credits
SEC-582	Middle and Secondary Curriculum and Instruction for STEM Teachers	3 credits
SEC-517	Assessment and Evaluation for STEM Teachers	3 credits
SEC-525	Methods and Strategies for Middle and High School Teachers	3 credits
SEC-540	Adolescent Literacy	3 credits
ESL-545	Methods of Structured English Immersion for Secondary Education	3 credits
SEC-530	Integrating Humanities Methods for Middle and High School Instruction	3 credits

Student teaching must be taken as the last course in the program.

SEC-590 ^Ω	Student Teaching: Secondary Education	8 credits
Master of Education in Secondary Education with an Emphasis in STEM		41 credits
Total Practicum/Field Experience Hours		101 hours

Master of Education in Secondary Education with an Emphasis in STEM (Non-IP/TL)

(Initial Program—Does Not Lead to Teacher Licensure)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

Grand Canyon University's Master of Education in Secondary Education with Emphasis in STEM program is designed for candidates interested in the education of children in STEM areas in grades 6-12. The format and courses of this regionally accredited and Arizona-approved program are tailored to meet the needs of the adult learner and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of secondary education, STEM, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the International Society of Technology Educators (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in secondary education field experiences that guide students through 100 hours of observational and practice-based experiences. This program does not lead to licensure.

Degree Requirements

SEC-502 ^Ω	Foundations in Secondary Education for Graduate Students	3 credits
POS-500	U.S. and Arizona Constitution for Teacher Candidates	3 credits
SEC-506	Early Adolescent and Adolescent Psychology	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
SEC-510	Creating and Managing Engaging Learning Environments	3 credits
SEC-582	Middle and Secondary Curriculum and Instruction for STEM Teachers	3 credits
SEC-517	Assessment and Evaluation for STEM Teachers	3 credits
SEC-525	Methods and Strategies for Middle and High School Teachers	3 credits
SEC-540	Adolescent Literacy	3 credits
ESL-545	Methods of Structured English Immersion for Secondary Education	3 credits
SEC-530	Integrating Humanities Methods for Middle and High School Instruction	3 credits
Master of Education in Secondary Education with an Emphasis in STEM		33 credits
Total Practicum/Field Experience Hours		101 hours

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Master of Education in Secondary STEM Education (IP/TL) Nevada ARL

(Initial Program—Leads to Teacher Licensure)

Grand Canyon University's Master of Education in Secondary STEM Education program is designed for candidates interested in the education of adolescents and young adults in the Science, Technology, Engineering and Mathematics (STEM) areas in grades 6-12 who are also seeking alternative route licensure in the state of Nevada. The format and courses of this regionally accredited and Nevada-approved program are tailored to meet the needs of the adult learner and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of secondary education, STEM, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC) and the International Society of Technology Educators (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in secondary education field experiences that guide students through 126 hours of observational and practice-based experiences. The final semester of this program includes a full-time, 15-week student teaching component. Teacher candidates are required to produce documentation of successful completion of required Nevada teaching exams that include content exams in biology, physics, or mathematics in order to progress in this program.

Degree Requirements

SEC-501 ^Ω	Foundations in Education for Graduate Studies	3 credits
EDU-526 ^Ω	Family and Community Engagement	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
POS-500	U.S. and Arizona Constitution for Teacher Candidates	3 credits
SEC-505	Adolescent Development and Psychology	3 credits
SEC-510	Creating and Managing Engaging Learning Environments	3 credits
SEC-515	Assessment and Evaluation for Middle and High School Teachers	3 credits
SEC-525	Methods and Strategies for Middle and High School Teachers	3 credits
SEC-540	Adolescent Literacy	3 credits
SEC-520	Integrating STEM Methods for Middle and High School Instruction	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
SEC-580	Curriculum and Instructional Planning for Middle and High School Teachers	3 credits
SEC-590 ^Ω	Student Teaching: Secondary Education	8 credits
Master of Education in Secondary STEM Education		44 credits
Total Practicum/Field Experience Hours		128 hours

Master of Education in Special Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is designed for any individual interested in the education of children with mild to moderate special needs in the

K-12 setting who also wish to seek initial teaching licensure. The format and courses of this regionally accredited and Arizona-approved program are tailored to meet the needs of adult learners and to maximize strengths that teacher candidates already possess. Courses are taught by experts in their respective fields who share knowledge and experience in areas of learning disabilities, emotional and behavioral disabilities, and other physical and cognitive impairments. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles and Council for Exceptional Children Standards. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide teacher candidates through observational and practice-based experiences. Teacher candidates must have access to a K-12 special education classroom to complete the program assignments. The classroom setting must have mild to moderate disability categories represented, which may include: emotional disability, learning disability, intellectual disability, physical impairment, and/or health impairment. Graduates of the program are prepared to work with special needs populations and implement individualized educational plans to accommodate various learning needs. Teacher candidates must be prepared to complete a full-time, 15-week student teaching component at the end of the program that must be completed with a certified special educator. Students/applicants are responsible for contacting their state department of education for licensure requirements and program approval. The student/applicant should consult the Grand Canyon Academic Catalog, the University Policy Handbook, and an academic advisor to obtain information regarding current policies and procedures inherent in an initial teacher licensure program.

Degree Requirements

SPD-501 ^Ω	Foundations in Special Education Graduate Studies	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
SPD-510	Professional, Ethical and Legal Practices and Policies in Special Education	3 credits
SPD-521	Collaborations and Communications in Special Education	3 credits
SPD-531	Assessment and Eligibility in Special Educ: Mild to Moderate Disability	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
SPD-540	Learning Environments for Students with Mild to Moderate Disabilities	3 credits
SPD-550	Instructional and Transitional Planning for Students with Mild to Moderate Disabilities	3 credits
SPD-560	Language Development with Mild to Moderate Disabilities and Disorders	3 credits
ESL-546	Methods of Structured English Immersion for K-12 Education	3 credits
SPD-570	Methods of Teaching Math to Students with Mild to Moderate Disabilities	3 credits
SPD-580	Methods of Teaching Lang Arts to Students with Mild/Moderate Disabilities	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Student teaching must be taken as the last course in the program.

SPD-590^Ω	Student Teaching for Special Education Teacher Candidates	8 credits
Master of Education in Special Education (IP/TL)		44 credits
Total Practicum/Field Experience Hours		99 hours

Master of Education in Special Education (IP/TL) Nevada ARL

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Master of Education in Special Education program is designed for those who wish to seek an initial teaching licensure in Mild to Moderate Disabilities Special Education in grades K-12, who are also seeking alternative route licensure in the state of Nevada. The format and courses of this regionally accredited and Nevada-approved program are tailored to meet the needs of the adult learner and to maximize the content knowledge that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of mild to moderate disabilities in special education, and educational psychology. All courses are directly aligned with standards from the Interstate Teacher Assessment and Support Consortium (InTASC), the Council for Exceptional Children (CEC) Initial Preparation Standards, and the International Society of Technology Educators (ISTE). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in special education field experiences that guide students through 97 hours of observational and practice-based experiences. The final semester of this program includes a full-time, 15-week student teaching component. Teacher candidates are required to produce documentation of successful completion of required Nevada teaching exams that include content exams in special education in order to progress in this program.

Degree Requirements

EDU-535^Ω	Foundations in Special Education Graduate Studies	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits
EDU-526 ^Ω	Family and Community Engagement	3 credits
SPD-510	Professional, Ethical and Legal Practices and Policies in Special Education	3 credits
SPD-520	Collaborations and Communications in Special Education	3 credits
SPD-530	Assessment and Eligibility in Special Educ: Mild to Moderate Disability	3 credits
SPD-540	Learning Environments for Students with Mild to Moderate Disabilities	3 credits
SPD-550	Instructional and Transitional Planning for Students with Mild to Moderate Disabilities	3 credits
SPD-585	Educational Psychology for Special Education	3 credits
SPD-595	Methods of Educating Learners with Diverse Needs	3 credits

SPD-570	Methods of Teaching Math to Students with Mild to Moderate Disabilities	3 credits
SPD-580	Methods of Teaching Lang Arts to Students with Mild/Moderate Disabilities	3 credits
PCN-518	Human Growth and Development	3 credits

Student teaching must be taken as the last course in the program.

SPD-590^Ω	Student Teaching for Special Education Teacher Candidates	8 credits
Master of Education in Special Education (IP/TL)		47 credits
Total Practicum/Field Experience Hours		87 hours

Master of Education in Special Education (IP/Non-TL)

(Initial Program—Does Not Lead to Teacher Licensure)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

Grand Canyon University's Master of Education in Special Education develops educators for special education opportunities not requiring licensure. This program is designed for any individual interested in the education of children with mild to moderate special needs in grades K-12, who does not seek initial teaching licensure. The format and courses of this regionally accredited program are tailored to meet the needs of adult learners and to maximize strengths that students already possess. Courses are taught by experts in their respective fields who share knowledge and experience in areas of learning disabilities, emotional and behavioral disabilities, and other physical and cognitive impairments. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles and Council for Exceptional Children Standards. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide educators through observational and practice-based experiences. Students must have access to a K-12 special education classroom to complete the program assignments. The classroom setting must have mild to moderate disability categories represented, which may include: autism, traumatic brain injury, emotional disability, learning disability, intellectual disability, physical impairment, and/or other health impairments. Traditionally, students graduating from a special education non licensure program have been interested in education-related jobs that do not require traditional teacher certifications, including parks and recreation, non-profits, workplace training and community programs. Graduates of the program are prepared to work with special needs populations and implement individualized educational plans to accommodate various learning needs. The student/applicant should consult the Grand Canyon Academic Catalog, the University Policy Handbook, and an academic advisor to obtain information regarding current policies and procedures inherent in a non-licensure program.

Degree Requirements

SPD-501^Ω	Foundations in Special Education Graduate Studies	3 credits
SPD-500	Survey of Special Education: Mild to Moderate Disabilities	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-510	Professional, Ethical and Legal Practices and Policies in Special Education	3 credits
SPD-521	Collaborations and Communications in Special Education	3 credits
SPD-531	Assessment and Eligibility in Special Educ: Mild to Moderate Disability	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits
SPD-540	Learning Environments for Students with Mild to Moderate Disabilities	3 credits
SPD-550	Instructional and Transitional Planning for Students with Mild to Moderate Disabilities	3 credits
SPD-560	Language Development with Mild to Moderate Disabilities and Disorders	3 credits
ESL-546	Methods of Structured English Immersion for K-12 Education	3 credits
SPD-570	Methods of Teaching Math to Students with Mild to Moderate Disabilities	3 credits
SPD-580	Methods of Teaching Lang Arts to Students with Mild/Moderate Disabilities	3 credits
Master of Education in Special Education		36 credits
Total Practicum/Field Experience Hours		99 hours

Master of Education in Special Education: Moderate to Severe (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

The Master of Education in Special Education Moderate to Severe (eligible for Institutional Recommendation/Credential) is designed for individuals with a bachelor's degree in any field who are interested in the education of children with moderate to severe special needs in the K-12 setting. This program prepares candidates seeking initial teaching licensure in the special education area of moderate to severe. Graduates of the program are prepared to work with individuals with moderate to severe exceptionalities and implement individualized educational plans to accommodate various student needs. Teacher candidates study topics such as ethical and legal practices; collaboration with internal and external stakeholders; diagnosis and assessment in special education; characteristics of intellectual disabilities and other physical and health impairments; the implementation of communication and behavior strategies; and the use of assistive technologies for individuals with moderate to severe exceptionalities. Classroom management methods, classroom structures, and educational planning are also explored. The special education degree program concludes with a full-time, 15-week student teaching component that must be completed with a certified special educator. In order to complete the 103 hours of field experience and student teaching requirement, teacher candidates must have access to K-12 special education settings with a moderate to severe population.

Degree Requirements

SPD-501^Ω	Foundations in Special Education Graduate Studies	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits

SPD-506	Survey of Moderate to Severe Special Education	3 credits
SPD-551	Moderate to Severe: Professional, Ethical, and Legal Practices	3 credits
SPD-556	Assessment and Eligibility in Moderate to Severe Special Education	3 credits
SPD-558	Moderate to Severe: Care, Collaboration, and Communication	3 credits
SPD-562	Moderate to Severe: Instructional Planning, Strategies, and Assessment	3 credits
SPD-564	Moderate to Severe: Classroom Management and Behavior Analysis	3 credits
SPD-566	Postsecondary Transitional Planning for Moderate to Severe Exceptionalities	3 credits
SPD-568	Moderate to Severe: Adaptive Communication	3 credits
ESL-546	Methods of Structured English Immersion for K-12 Education	3 credits
SPD-572	Moderate to Severe: Methods of Teaching Functional Mathematics and Science	3 credits
SPD-582	Moderate to Severe: Methods of Teaching Functional Language Arts	3 credits

Student teaching must be taken as the last course in the program.

SPD-592^Ω	Student Teaching for Special Education: Moderate to Severe	8 credits
Master of Education in Special Education: Moderate to Severe (IP/TL)		47 credits
Total Practicum/Field Experience Hours		103 hours

Master of Education in Special Education: Moderate to Severe (IP/Non-TL)

(Initial Program—Does Not Lead to Teacher Licensure)

The Master of Education in Special Education Moderate to Severe (NITL) program is designed for individuals with a bachelor's degree in any field who are interested in the education of children with moderate to severe special needs. This program does not lead to teacher licensure. Graduates of the program are prepared to work with individuals with moderate to severe exceptionalities and implement individualized educational plans to accommodate various student needs. The program includes topics such as: ethical and legal practices; collaboration with internal and external stakeholders; diagnosis and assessment in special education; characteristics of intellectual disabilities and other physical and health impairments; the implementation of communication and behavior strategies; and the use of assistive technologies for individuals with moderate to severe exceptionalities. Classroom management methods, classroom structures, and educational planning are also explored. In order to complete the 103 hours of field experience, candidates must have access to K-12 special education settings with a moderate to severe population.

Degree Requirements

SPD-501^Ω	Foundations in Special Education Graduate Studies	3 credits
POS-500	U.S. and Arizona Constitutions for Teacher Candidates	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

SPD-506	Survey of Moderate to Severe Special Education	3 credits
SPD-551	Moderate to Severe: Professional, Ethical, and Legal Practices	3 credits
SPD-556	Assessment and Eligibility in Moderate to Severe Special Education	3 credits
SPD-558	Moderate to Severe: Care, Collaboration, and Communication	3 credits
SPD-562	Moderate to Severe: Instructional Planning, Strategies, and Assessment	3 credits
SPD-564	Moderate to Severe: Classroom Management and Behavior Analysis	3 credits
SPD-566	Postsecondary Transitional Planning for Moderate to Severe Exceptionalities	3 credits
SPD-568	Moderate to Severe: Adaptive Communication	3 credits
ESL-546	Methods of Structured English Immersion for K-12 Education	3 credits
SPD-572	Moderate to Severe: Methods of Teaching Functional Mathematics and Science	3 credits
SPD-582	Moderate to Severe: Methods of Teaching Functional Language Arts	3 credits
Master of Education in Special Education: Moderate to Severe (IP/Non-TL)		39 credits
Total Practicum/Field Experience Hours		103 hours

Master of Science in Instructional Technology (AP/CPE)

(Advanced Program for Continuing Professional Education)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The Master of Science in Instructional Technology program is designed for current teaching professionals who have an interest in becoming a technology specialist or coach. The format and courses of this regionally accredited program are aligned to the International Society for Technology in Education (ISTE) Standards for Coaches, and the Interstate Teacher Assessment and Support Consortium (InTASC) standards. Courses are taught by experts in their respective fields who share knowledge and experience in the areas of technology-based instructional theories and models, digital literacies and new media, ethical and equitable technology integration, technology for student assessment, multimedia instructional strategies, distance learning, andragogy and coaching. This program includes field experiences that help develop the students understanding of the complexity of being a leader in the school setting, classroom technology use and training, development of a vision for technology, and ensuring smooth day-to-day technology integration in teaching.

Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide students through 120 hours of observational and practice-based experiences. Candidates must have access to a K-12 school classroom with technology to complete the capstone course and program assignments. Graduates of the program are prepared to become leaders in technology at the K-12 classroom, school, and district levels.

Degree Requirements

UNV-501 ^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TCH-520	Brain-Based Learning	3 credits
TCH-539	Introduction to Educational Research	3 credits
TEC-516	Instructional Theories and Models in Technology Education	3 credits
TEC-520	Digital Literacies and New Media	3 credits
TEC-530	Ethics, Culture, and Equity with Technology	3 credits
TEC-536	Assessment and Instructional Technology	3 credits
TEC-561	Multimedia Instructional Strategies and Methods	3 credits
TEC-541	Distance Learning	3 credits
TEC-544	Leadership and Technology Coaching	3 credits
TEC-595 ^Ω	Instructional Technology Capstone	3 credits
Master of Science in Instructional Technology		32 credits

Graduate Certificate of Completion in Teaching English to Speakers of Other Languages (TESOL)

This program does not include a student teaching component, and does not therefore lead to licensure, but may lead to career advancement for those already licensed as teachers.

The Graduate Certificate of Completion in Teaching English to Speakers of Other Languages (TESOL) is designed for teaching professionals with an interest in working with English language learners (ELLs) in or out of the classroom. The format and courses of this regionally accredited program are tailored to meet the needs of the adult learner and to maximize strengths that the working educator possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of linguistics, second language acquisition, and curriculum development. All courses are directly aligned with the Interstate Teacher Assessment and Support Consortium (InTASC) and the Standards for the Recognition of Initial TESOL Programs in P-12 ESL Teacher Education (TESOL). Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in TESOL field experiences and a practicum that guide students through 40 hours of observational and practice-based experiences. Candidates must have access to a P-12 classroom with ESL students to complete the practicum course and program assignments. Graduates of the program are prepared to become leaders in ESL/BLE/TESOL at the P-12 classroom, school, community college, and district level (18 credits).

Degree Requirements

TSL-532	Foundations of Instruction for English Language Learners	3 credits
TSL-550	School, Community, and Family Culture	3 credits
TSL-541	Linguistics	3 credits
TSL-558	ELL and Bilingual Curriculum and Methods of Instruction	3 credits
TSL-565	ELL and Bilingual Assessment	3 credits
TSL-567	Methods of Teaching and Evaluating ELLs with Special Needs	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Graduate Certificate of Completion in Teaching English to Speakers of Other Languages (TESOL)	18 credits
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Students who are Louisiana or Nevada residents must complete the Louisiana or Nevada specific requirements to meet the standards in those states.

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | ^ Non-Transferable

The College of Fine Arts and Production

College Description

The College of Fine Arts and Production is dedicated to providing its students with the finest training possible in their chosen fields. All disciplines and majors within the College require a thorough and exhaustive study of subject-specific theory and related performance to translate theory into active and exciting participation and presentation. All of the College's faculty are dedicated professionals who are active within their fields and therefore can offer students the unique opportunity of their current professional expertise as well as classroom knowledge.

College Mission

The College of Fine Arts and Production endeavors to create an environment where students can be challenged to excel throughout all of their class work as well as in their performance opportunities. Faculty members strive to imbue students with the tools to create, analyze, lead, and teach through the eventual mastery of their chosen disciplines.

College Features

Currently, the College consists of four departments, Dance, Music, Production, and Theatre.

The Department of Dance offers a Bachelor of Arts in Dance and Bachelor of Arts in Dance Education.

The Department of Music features seven degrees, a Bachelor of Arts in Music Education-Choral: Voice, a Bachelor of Arts in Music Education-Choral: Piano, a Bachelor of Arts in Music Education-Instrumental: Brass, Percussion, Woodwind, Strings, a Bachelor of Arts in Music Education-Instrumental: Piano, a Bachelor of Arts in Music with an Emphasis in Piano, a Bachelor of Arts in Music with an Emphasis in Instrumental Music, and a Bachelor of Arts in Music with an Emphasis in Voice. The Department of Music features nine ensembles — Canyon Choral Society, Canyon Chorale, Canyon Singers, Critical Mass, Thundering Heard Pep Band, Thunder Big Band, Symphonic Band, Percussion Ensemble and Woodwind Ensemble.

The Department of Production offers a Bachelor of Arts in Advertising and Public Relations with an Emphasis in Advertising Design, Bachelor of Arts in Digital Design with an Emphasis in either Animation or Web Design, and a Bachelor of Arts in Digital Film with an Emphasis in either Production or Screenwriting.

The Department of Theatre offers a Bachelor of Arts in Theatre and Drama and a Bachelor of Arts in Theatre Education. Both departments have several performing groups. The Department of Theatre presents the Grand Canyon University's Ethington Theatre Series, which is comprised of five productions performing over 30 times annually.

Department of Dance

Grand Canyon University's Department of Dance is dedicated to the training of dancers, teachers, and choreographers by blending both the theory and the practice of dance performance and its related disciplines.

In addition to regular classroom studies, dance major students will take part in the Ethington Dance Ensemble in numerous capacities, including performance, choreography and technical production, thus allowing them to explore the creative process from rehearsal to live performance. This global approach to

dance education creates a multifaceted graduate who is prepared to succeed in today's marketplace.

Bachelor of Arts in Dance

Grand Canyon University's Bachelor of Arts in Dance program is designed to train balanced dance practitioners who may succeed in a range of career paths related to dance. Experiences in our program will blend the theory and practice of dance performance and choreography with interdisciplinary applications in fields such as social and life sciences, technology, and other visual and performing arts.

Degree Requirements

Total General Education	34-40 credits
Total Dance Major	66 credits
Total Electives	14-20 credits
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Total Bachelor of Arts in Dance	120 credits

Dance Major

DAN-130A	Dance Ensemble I-A	0.5 credit
DAN-200	Somatics for the Dancer	2 credits
DAN-100	Introduction to Ballet Technique	1 credit
DAN-101	Introduction to Jazz Technique	1 credit
DAN-180A	Elementary Dance Tour	0 credit
DAN-130B	Dance Ensemble I-B	0.5 credit
DAN-120	Introduction to Modern Technique	1 credit
DAN-250	Ballet Technique II	1 credit
DAN-260	Jazz Technique II	1 credit
DAN-180B	Elementary Dance Tour	0 credit
DAN-280A	Dance Ensemble II-A	0.5 credit
DAN-395	Dance Production	4 credits
DAN-350	Ballet Technique III	1 credit
DAN-360	Jazz Technique III	1 credit
DAN-270	Modern Technique II	1 credit
DAN-280B	Dance Ensemble II-B	0.5 credit
DAN-210	Improvisation for Dance	1 credit
DAN-355^A	Dance Kinesiology and Injury Prevention	4 credits
DAN-370	Modern Technique III	1 credit
DAN-385	Choreography I: Space and Time/Design and Dance	2 credits
DAN-380A	Dance Ensemble III-A	0.5 credit
DAN-390	Choreography II: Process	2 credits
DAN-315^A	Dance History I	4 credits

^A Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

DAN-320	Technology for Dance Educators	2 credits
DAN-353	Ballet Technique IV	1 credit
DAN-363	Jazz Technique IV	1 credit
DAN-380B	Dance Ensemble III-B	0.5 credit
DAN-340^Δ	Dance History II	4 credits
DAN-373	Modern Technique IV	1 credit
DAN-450	Dance Pedagogy	2 credits
DAN-453	Ballet Technique V	1 credit
DAN-470	Choreography III: Performance	2 credits
DAN-300	Alignment and Pilates for Dance	2 credits
DAN-312	Vernacular Dance: Tap I	1 credit
DAN-313	Vernacular Dance: Urban & Hip Hop I	1 credit
DAN-480	Dance Ensemble IV	1 credit
DAN-465A	Master Class: Ballet, Jazz	1 credit
DAN-430	Dance Research Seminar I	2 credits
DAN-412	Vernacular Dance: Tap II	1 credit
DAN-413	Vernacular Dance: Urban & Hip Hop II	1 credit
DAN-435	Dance Research Seminar II	2 credits
DAN-465B	Master Class: Modern	1 credit
DAN-475	Dance in Sacred Contexts	4 credits
DAN-485	Creative Practices	4 credits
Dance Major		66 credits

Bachelor of Arts in Dance for Secondary Education (IP-TL)

(Initial Program - Leads to Initial Teacher Licensure)

The Bachelor of Arts for Secondary Education is a program designed to prepare and certify candidates for the instruction of Dance Arts in a secondary education environment. All courses are directly aligned with the Interstate Teacher Assessment and Support Consortium (InTASC) principles. The program spans 126 credit hours of instruction and practicum experience resulting in a recommendation for an Arizona initial certificate to work in the State's schools. As part of the dance program's development, a council comprised of faculty from the College of Education, the College of Fine Arts and Production, and the College of Arts and Sciences has been instituted. The relationship between the College of Fine Arts and Production and the College of Education ensures student teachers will receive both content knowledge, and the means to convey that knowledge in their classrooms. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within many of the courses guide students through 105 hours of observational and practice-based experiences, and the final semester of the program includes a full-time student teaching component. These educational settings must be state-certified environments, and mentor teachers must be fully certified. Graduates of this program are prepared to become informed educators in public and private schools and other settings requiring teaching licensure. The program is designed to train dance educators and practitioners by blending the theories and practices of dance and its related fields. In addition to regular classroom studies, Dance Education majors are required to

participate in the Ethington Dance Ensemble for our bi-annual concert series. Students serve in numerous capacities, including onstage and offstage disciplines, thus allowing them to explore the creative process from rehearsal to live performance. This global approach to dance education training creates a graduate who is multi-faceted and prepared to succeed in today's marketplace.

Degree Requirements

Total General Education	34-40 credits
Total Dance for Secondary Education Major	86 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Dance for Secondary Education	126 credits

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

DAN-315	Dance History I	4 credits
DAN-340	Dance History II	4 credits

Dance for Secondary Education Major

DAN-100	Introduction to Ballet Technique	1 credit
DAN-101	Introduction to Jazz Technique	1 credit
DAN-130A	Dance Ensemble I-A	0.5 credit
DAN-180A	Elementary Dance Tour	0 credits
DAN-200^Δ	Somatics for the Dancer	2 credits
DAN-250	Ballet Technique II	1 credit
DAN-260	Jazz Technique II	1 credit
DAN-130B	Dance Ensemble I-B	0.5 credit
DAN-120	Introduction to Modern Technique	1 credit
DAN-180B	Elementary Dance Tour	0 credits
DAN-300	Alignment and Pilates for Dance	2 credits
SEC-201	Early Adolescent and Adolescent Psychology	4 credits
DAN-395^Δ	Dance Production	4 credits
DAN-210	Improvisation for Dance	1 credit
DAN-270	Modern Technique II	1 credit
DAN-280A	Dance Ensemble II-A	0.5 credit
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
EDU-330	Social Justice for Educators	4 credits
POS-301	Arizona and Federal Government	2 credits
DAN-280B	Dance Ensemble II-B	0.5 credit
DAN-350	Ballet Technique III	1 credit
DAN-360	Jazz Technique III	1 credit
DAN-385	Choreography I: Space and Time/Design and Dance	2 credits
DAN-370	Modern Technique III	1 credit
DAN-355^Δ	Dance Kinesiology and Injury Prevention	4 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
DAN-380A	Dance Ensemble III-A	0.5 credit

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

DAN-390^f	Choreography II: Process	2 credits
DAN-320	Technology for Dance Educators	2 credits
DAN-313	Vernacular Dance: Urban & Hip Hop I	1 credit
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
DAN-380B	Dance Ensemble III-B	0.5 credit
DAN-450	Dance Pedagogy	2 credits
DAN-470	Choreography III: Performance	2 credits
ESL-445N	Methods of Structured English Immersion for Secondary Education	3 credits
DAN-480	Dance Ensemble IV	1 credit
DAN-325	Dance Integration	4 credits
DAN-398	Dance Methods and Assessment in the Secondary School	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-490^o	Student Teaching for Secondary Education	8 credits
Dance for Secondary Education Major		86 credits
Total Practicum/Field Experience Hours		95 hours

Department of Music

The Department of Music offers various areas of study for students desiring to pursue music as a profession; provides classes, ensembles, and private music instruction for students majoring in other fields; and contributes to the cultural environment of the University community.

The Department of Music is dedicated to developing the musicianship of each student through excellence in the classroom and all performance facets. Students from the entire University join with music majors in performing in a variety of ensembles and productions throughout the year.

The Music Department exists to provide accessible and affordable quality undergraduate music education to the next generation of musicians and music educators in the context of a Christian liberal arts university.

The music department aspires to provide strong undergraduate academic programs, multiple music performance opportunities, and a welcoming environment where future musicians and music educators are constantly challenged to greater levels of academic and artistic achievement in order to achieve success in their chosen disciplines.

Each of these mission statements are reflected in the Mission-based Bachelor's Competencies. These competencies are critical components embedded into each undergraduate-level, music program.

Music Education Programs

Grand Canyon University's Bachelor of Arts in Music Education program is designed for students devoted to developing their musical abilities and refining performance skills in order to teach in elementary and secondary schools. The music education curriculum is driven by standards created by the National

Association of Schools of Music. Additionally, course topics and objectives have been aligned to the Interstate Teacher Assessment and Support Consortium (InTASC) standards.

In the liberal arts setting, in addition to performance, the Bachelor of Arts in Music Education curriculum provides a balanced program of applied music, theoretical and historical studies, professional education studies, and field work experiences. An emphasis is placed on contemporary music education with training and experiences designed to meet the varying needs of today's schools. Students selecting the music education program will need to determine whether they want to pursue a choral or instrumental emphasis. Private instruction in an applied instrument or voice is also required.

The mission of our music education program is to prepare outstanding educators who can make a difference in the lives of their students. Integral to the music education program at Grand Canyon University is the opportunity for students to perform in public. Choir concerts, voice and piano recitals, as well as smaller vocal ensembles are a staple of the musical landscape at GCU. The music education program, in conjunction with the theatre program, produces the University Theatre series, which presents a series of major productions annually. Auditions for all of the productions are open to the entire student body. Scholarships are available by audition and interview.

The Music Department will assign a variable of 14 ensemble courses total, through placement audition, throughout the entirety of the music program effective Fall 2014. Ensembles can include: MEN-308: Canyon Chorale, MEN-348: Jazz Band, MEN-318: Collaborative Music Ensemble, MEN-312: Opera Workshop, MEN-305: Musical Theatre Workshop, MEN-314: Canyon Singers, MEN-306: Canyon Choral Society, MEN-338: Wind Ensemble, MEN-336: Pep Band, or MEN-334: Percussion Ensemble.

Bachelor of Arts in Music Education – Choral: Piano (IP/TL)

(Initial Program-Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Arts in Music Education program is designed for students devoted to developing their musical abilities and refining performance skills in order to teach in elementary and secondary schools. The music education curriculum is driven by professional degree standards created by the National Association of Schools of Music (NASM).

Additionally, course topics and objectives have been aligned to the Interstate Teacher Assessment and Support Consortium (InTASC) standards. In the professional studies setting, the Bachelor of Arts in Music Education curriculum provides a balanced program of applied music, theoretical and historical studies, professional education studies, and field work experiences. An emphasis is placed on contemporary music education with training and experiences designed to meet the varying needs of today's schools. Students selecting the music education program will need to determine whether they want to pursue a choral or instrumental emphasis, and a primary instrument must be declared. Private instruction in an applied instrument or voice is required. Performance scholarships for program majors and/or Pep Band members are available by audition and interview. The mission of our music education program is to prepare outstanding educators who can make a difference in the lives of their students. Integral to the BA in Music Education program at Grand Canyon University is the opportunity for students to perform in public. Ensemble concerts

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^o Non-Transferable

and solo recitals, as well as smaller chamber ensembles, are a staple of the musical landscape at GCU. The music program, in conjunction with the theatre program, produces the University's Ethington Theatre series, which presents a series of major productions annually. Auditions for all productions are open to the entire student body.

Degree Requirements

Total General Education	34-40 credits
Total Music Education – Choir: Piano Major	90 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Music Education – Choir: Piano	130 credits

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

MUS-218	Popular Music in American Society	4 credits
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Music Education – Choir: Piano Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MED-201	Instrumental Techniques: Strings	1 credit
MED-203	Instrumental Techniques: Winds	1 credit
MAP-120	Private Piano Study Majors I	2 credits
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit
MED-225	Instrumental Techniques: Percussion	1 credit
MAP-130	Private Piano Study Majors II	2 credits
MUS-360^A	Music History I	3 credits
MUS-262^f	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
POS-301	Arizona and Federal Government	2 credits
MED-320	Technology for Music Educators	2 credits
MVC-109	Class Voice (Majors)	1 credit
MAP-220	Private Piano Study Majors III	2 credits
MUS-369^A	Music History II	3 credits
MUS-351^f	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
MUS-223	Conducting	2 credits
MUS-310^A	Choral Literature for Music Educators	2 credits
MUS-215	Lyric Diction for Music Educators	1 credit
MAP-230	Private Piano Study Majors IV	2 credits
EDU-213	Educational Psychology	4 credits
MUS-453^Ω	Advanced Conducting	2 credits
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MUS-326	Orchestration and Arranging	2 credits

MUS-406	Jazz Techniques	1 credit
MAP-320	Private Piano Study Majors V	2 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-355	Music Methods and Assessment in the Elementary School	2 credits
MED-365	Music Methods and Assessment in the Secondary School	2 credits
MAP-330	Private Piano Study Majors VI	2 credits
MUS-331	Choral Methods and Pedagogy	2 credits
MED-430	Vocal Pedagogy for Music Educators	2 credits
MED-340	Teaching General Music in the Elementary and Secondary Schools	2 credits
MAP-420^Ω	Private Piano Study Majors VII	2 credits
MUS-370	Piano Literature I	2 credits
MUS-490^Ω	Senior Seminar	2 credits
MAP-490^Ω	Senior Recital	0 credit
MED-480A^Ω	Student Teaching: Elementary Music	6 credits
MED-480B^Ω	Student Teaching: Secondary Music	6 credits
Music Education – Choir: Piano Major		90 credits

Bachelor of Arts in Music Education – Choral: Voice (IP/TL)

Grand Canyon University's Bachelor of Arts in Music Education program is designed for students devoted to developing their musical abilities and refining performance skills in order to teach in elementary and secondary schools. The music education curriculum is driven by professional degree standards created by the National Association of Schools of Music (NASM). Additionally, course topics and objectives have been aligned to the Interstate Teacher Assessment and Support Consortium (InTASC) standards. In the professional studies setting, the Bachelor of Arts in Music Education curriculum provides a balanced program of applied music, theoretical and historical studies, professional education studies, and field work experiences. An emphasis is placed on contemporary music education with training and experiences designed to meet the varying needs of today's schools. Students selecting the music education program will need to determine whether they want to pursue a choral or instrumental emphasis, and a primary instrument must be declared. Private instruction in an applied instrument or voice is required. Performance scholarships for program majors and/or Pep Band members are available by audition and interview. The mission of our music education program is to prepare outstanding educators who can make a difference in the lives of their students. Integral to the BA in Music Education program at Grand Canyon University is the opportunity for students to perform in public. Ensemble concerts and solo recitals, as well as smaller chamber ensembles, are a staple of the musical landscape at GCU. The music program, in conjunction with the theatre program, produces the University's Ethington Theatre series, which presents a series of major productions annually. Auditions for all productions are open to the entire student body.

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

(Initial Program-Leads to Initial Teacher Licensure)**Degree Requirements**

Total General Education	34-40 credits
Total Music Education – Choir: Voice Major	90 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Music Education – Choir: Voice	130 credits

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

MUS-218	Popular Music in American Society	4 credits
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Music Education – Choir: Voice Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MPC-109	Class Piano (Majors)	1 credit
MED-201	Instrumental Techniques: Strings	1 credit
MED-203	Instrumental Techniques: Winds	1 credit
MVA-120	Private Voice Study Majors I	2 credits
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit
MED-225	Instrumental Techniques: Percussion	1 credit
MPC-259	Class Piano II	1 credit
MUS-215	Lyric Diction for Music Educators	1 credit
MVA-130	Private Voice Study Majors II	2 credits
MUS-360^Δ	Music History I	3 credits
MUS-262[‡]	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
MED-320	Technology for Music Educators	2 credits
MPC-359	Class Piano III	1 credit
MVA-220	Private Voice Study Majors III	2 credits
POS-301	Arizona and Federal Government	2 credits
MUS-369^Δ	Music History II	3 credits
MUS-351[‡]	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
MUS-223	Conducting	2 credits
MUS-310^Δ	Choral Literature for Music Educators	2 credits
MPC-459^Ω	Class Piano IV	1 credit
MVA-230	Private Voice Study Majors IV	2 credits
EDU-213	Educational Psychology	4 credits
MUS-453^Ω	Advanced Conducting	2 credits
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MUS-326	Orchestration and Arranging	2 credits

MVA-320	Private Voice Study Majors V	2 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-355^Ω	Music Methods and Assessment in the Elementary School	2 credits
MED-365^Ω	Music Methods and Assessment in the Secondary School	2 credits
MVA-330	Private Piano Study Majors VI	2 credits
MUS-331	Choral Methods and Pedagogy	2 credits
MED-430	Vocal Pedagogy for Music Educators	2 credits
MED-340^Ω	Teaching General Music in the Elementary and Secondary Schools	2 credits
MUS-490^Ω	Senior Seminar	2 credits
MVA-420^Ω	Private Voice Study Majors VII	2 credits
MVA-490^Ω	Senior Recital	0 credit
MED-480A^Ω	Student Teaching: Elementary Music	6 credits
MED-480B^Ω	Student Teaching: Secondary Music	6 credits

Music Education – Choir: Voice Major	90 credits
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Bachelor of Arts in Music Education – Instrumental: Brass, Woodwind, Percussion, or Strings (IP/TL)

Grand Canyon University's Bachelor of Arts in Music Education program is designed for students devoted to developing their musical abilities and refining performance skills in order to teach in elementary and secondary schools. The music education curriculum is driven by professional degree standards created by the National Association of Schools of Music (NASM). Additionally, course topics and objectives have been aligned to the Interstate Teacher Assessment and Support Consortium (InTASC) standards. In the professional studies setting, the Bachelor of Arts in Music Education curriculum provides a balanced program of applied music, theoretical and historical studies, professional education studies, and field work experiences. An emphasis is placed on contemporary music education with training and experiences designed to meet the varying needs of today's schools. Students selecting the music education program will need to determine whether they want to pursue a choral or instrumental emphasis, and a primary instrument must be declared. Private instruction in an applied instrument or voice is required. Performance scholarships for program majors and/or Pep Band members are available by audition and interview. The mission of our music education program is to prepare outstanding educators who can make a difference in the lives of their students. Integral to the BA in Music Education program at Grand Canyon University is the opportunity for students to perform in public. Ensemble concerts and solo recitals, as well as smaller chamber ensembles, are a staple of the musical landscape at GCU. The music program, in conjunction with the theatre program, produces the University's Ethington Theatre series, which presents a series of major productions annually. Auditions for all productions are open to the entire student body.

(Initial Program-Leads to Initial Teacher Licensure)**Degree Requirements**

Total General Education	34-40 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Total Music Education – Instrumental: Brass, Woodwind, Percussion or Strings Major	90 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Music Education – Instrumental: Brass, Woodwind, Percussion or Strings	130 credits

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

[MUS-218](#) Popular Music in American Society 4 credits

Music Education – Instrumental: Brass, Woodwind, Percussion or Strings Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MPC-109	Class Piano (Majors)	1 credit
MED-201	Instrumental Techniques: Strings	1 credit
MED-203	Instrumental Techniques: Winds	1 credit
MBE-115	Private Applied Instruction I	2 credits
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit
MPC-259	Class Piano II	1 credit
MED-225	Instrumental Techniques: Percussion	1 credit
POS-301	Arizona and Federal Government	2 credits
MBE-125	Private Applied Instruction II	2 credits
MUS-360 ^Δ	Music History I	3 credits
MUS-262 ^Δ	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
MPC-359	Class Piano III	1 credit
MVC-109	Class Voice (Majors)	1 credit
MED-320	Technology for Music Educators	2 credits
MED-220	Marching Band Techniques	1 credit
MBE-215	Private Applied Instruction III	2 credits
MUS-369 ^Δ	Music History II	3 credits
MUS-351 ^Δ	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
MPC-459 ^Ω	Class Piano IV	1 credit
MUS-223	Conducting	2 credits
MUS-327	Band Literature for Music Educators	2 credits
MBE-225	Private Applied Instruction IV	2 credits
EDU-213	Educational Psychology	4 credits
MUS-453 ^Ω	Advanced Conducting	2 credits
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MUS-326	Orchestration and Arranging	2 credits
MUS-406	Jazz Techniques	1 credit

MBE-315	Private Applied Instruction V	2 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-355	Music Methods and Assessment in the Elementary School	2 credits
MED-365	Music Methods and Assessment in the Secondary School	2 credits
MBE-325	Private Applied Instruction VI	2 credits
MED-415	Band Methods and Pedagogy	2 credits
MED-340	Teaching General Music in the Elementary and Secondary Schools	2 credits
MUS-490 ^Ω	Senior Seminar	2 credits
MEN-318 ^Ω	Collaborative Music Ensemble Majors	0 credit
MBE-415 ^Ω	Private Applied Instruction VII	2 credits
MBE-490 ^Ω	Senior Recital	0 credit
MED-480A ^Ω	Student Teaching: Elementary Music	6 credits
MED-480B ^Ω	Student Teaching: Secondary Music	6 credits

Music Education – Instrumental: Brass, Woodwind, Percussion or Strings Major 98 credits

Bachelor of Arts in Music Education – Instrumental: Piano (IP/TL)

Grand Canyon University's Bachelor of Arts in Music Education program is designed for students devoted to developing their musical abilities and refining performance skills in order to teach in elementary and secondary schools. The music education curriculum is driven by professional degree standards created by the National Association of Schools of Music (NASM). Additionally, course topics and objectives have been aligned to the Interstate Teacher Assessment and Support Consortium (InTASC) standards. In the professional studies setting, the Bachelor of Arts in Music Education curriculum provides a balanced program of applied music, theoretical and historical studies, professional education studies, and field work experiences. An emphasis is placed on contemporary music education with training and experiences designed to meet the varying needs of today's schools. Students selecting the music education program will need to determine whether they want to pursue a choral or instrumental emphasis, and a primary instrument must be declared. Private instruction in an applied instrument or voice is required. Performance scholarships for program majors and/or Pep Band members are available by audition and interview. The mission of our music education program is to prepare outstanding educators who can make a difference in the lives of their students. Integral to the BA in Music Education program at Grand Canyon University is the opportunity for students to perform in public. Ensemble concerts and solo recitals, as well as smaller chamber ensembles, are a staple of the musical landscape at GCU. The music program, in conjunction with the theatre program, produces the University's Ethington Theatre series, which presents a series of major productions annually. Auditions for all productions are open to the entire student body.

(Initial Program-Leads to Initial Teacher Licensure)

Degree Requirements

Total General Education 34-40 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

Total Music Education – Instrumental: Piano Major	90 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Music Education – Instrumental: Piano Major	130 credits

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

MUS-218	Popular Music in American Society	4 credits
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Music Education – Instrumental: Piano Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MED-201	Instrumental Techniques: Strings	1 credit
MED-203	Instrumental Techniques: Winds	1 credit
MAP-120	Private Piano Study Majors I	2 credits
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit
MED-225	Instrumental Techniques: Percussion	1 credit
MAP-130	Private Piano Study Majors II	2 credits
POS-301	Arizona and Federal Government	2 credits
MUS-360^A	Music History I	3 credits
MUS-262^f	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
MVC-109	Class Voice (Majors)	1 credit
MED-320	Technology for Music Educators	2 credits
MED-220	Marching Band Techniques	1 credit
MAP-220	Private Piano Study Majors III	2 credits
MUS-369^A	Music History II	3 credits
MUS-351^f	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
MUS-223	Conducting	2 credits
MUS-327	Band Literature for Music Educators	2 credits
EDU-213	Educational Psychology	4 credits
MUS-453^Ω	Advanced Conducting	2 credits
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MUS-326	Orchestration and Arranging	2 credits
MUS-406	Jazz Techniques	1 credit
MAP-320	Private Piano Study Majors V	2 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-340^Ω	Teaching General Music in the Elementary and Secondary Schools	2 credits
MUS-377	Piano Literature II	2 credits
MAP-330	Private Piano Study Majors VI	2 credits

MUS-417^Ω	Collaborative Piano I	2 credits
MED-415	Band Methods and Pedagogy	2 credits
MED-355	Music Methods and Assessment in the Elementary School	2 credits
MED-365	Music Methods and Assessment in the Secondary School	2 credits
MUS-490^Ω	Senior Seminar	2 credits
MAP-420^Ω	Private Piano Study Majors VII	2 credits
MAP-490^Ω	Senior Recital	0 credit
MED-480A^Ω	Student Teaching: Elementary Music	6 credits
MED-480B^Ω	Student Teaching: Secondary Music	6 credits

Music Education – Instrumental: Piano Major	90 credits
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Music Programs

The Bachelor of Arts in Music program is designed for serious students who wish to devote themselves to developing musical skills, understanding composition, and refining their performance skills. The program is a true liberal arts degree, allowing participation in varied performing ensembles and studies while simultaneously preparing students for a variety of careers both within and outside the field.

The Music Department will assign a variable of 16 ensemble courses total, through placement audition, throughout the entirety of the music program effective Fall 2014. Ensembles can include: MEN-308: Canyon Chorale, MEN-348: Jazz Band, MEN-318: Collaborative Music Ensemble, MEN-312: Opera Workshop, MEN-305: Musical Theatre Workshop, MEN-306: Canyon Choral Society, MEN-315: Critical Mass, MEN-338: Wind Ensemble, MEN-336: Pep Band, or MEN-334: Percussion Ensemble.

Bachelor of Arts in Music with an Emphasis in Instrumental Performance

The Bachelor of Arts in Music program is designed for developing musicians who wish to devote themselves to developing musical skills, understanding composition and refining their performance skills. The program is a Bachelor of Arts professional degree, aligned with the National Association of Schools of Music (NASM) standards. The degree allows participation in varied performing ensembles and studies, while simultaneously preparing students for a variety of careers both within and outside the field. Some students enter this program with aspirations of teaching private lessons or owning their own studio. Others wish to pursue their master's degree so they are able to teach studio lessons or other music courses at the collegiate level. Performance scholarships for program majors and/or Pep Band members are available by audition and interview. Students selecting the Bachelor of Arts in Music program will need to determine whether they want to pursue an instrumental, piano or voice emphasis, and a primary instrument must be declared. Private instruction in an applied instrument or voice is required. Additionally, in order to meet NASM professional degree standards, the sixteen (16) elective credits present within the program must be taken from a specified pool of music-related electives. Adherence to this requirement will be checked by the department at regular intervals as part of normal progression through the degree. Integral to the Bachelor of Arts in Music program at Grand Canyon University is the opportunity

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

for students to perform in public. Ensemble concerts and solo recitals, as well as smaller chamber ensembles, are a staple of the musical landscape at GCU. The music program, in conjunction with the theatre program, produces the University's Ethington Theatre series, which presents a series of major productions annually. Auditions for all productions are open to the entire student body.

Degree Requirements

Total General Education	34-40 credits
Total Music with an Emphasis in Instrumental Performance Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Music with an Emphasis in Instrumental Performance	120 credits

Music with an Emphasis in Instrumental Performance Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MPC-109	Class Piano I	1 credit
MBE-115	Private Applied Instruction I	2 credits
MEN-336	Pep Band	0 credits
MEN-338	Wind Ensemble	0 credits
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit
MPC-259	Class Piano II	1 credit
MBE-125	Private Applied Instruction II	2 credits
MUS-360 ^Δ	Music History I	3 credits
MUS-262	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
MPC-359	Class Piano III	1 credit
MVC-109	Class Voice (Majors)	1 credit
MBE-215	Private Applied Instruction III	2 credits
MUS-369 ^Δ	Music History II	3 credits
MUS-351	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
MPC-459 ^Ω	Class Piano IV	1 credit
MUS-223	Conducting	2 credits
MBE-225	Private Applied Instruction IV	2 credits
MUS-393 [†]	Form and Analysis	3 credits
MUS-378 ^Δ	Chamber Music Literature	2 credits
MUS-453 ^Ω	Advanced Conducting	2 credits
MEN-318 ^Ω	Collaborative Music Ensemble Majors	0 credit
MBE-315	Private Applied Instruction V	2 credits
MUS-379 ^Δ	Symphonic Literature	2 credits
MUS-394	Counterpoint	3 credits
MBE-325	Private Applied Instruction VI	2 credits
MBE-390	Junior Recital	0 credits

MUS-406	Jazz Techniques	1 credit
MUS-326	Orchestration and Arranging	2 credits
MUS-457 ^Ω	Instrumental Pedagogy	2 credits
MBE-415	Private Applied Instruction VII	2 credits
MUS-490 ^Ω	Senior Seminar	2 credits
MBE-425 ^Ω	Private Applied Instruction VIII	2 credits
MAP-490 ^Ω	Senior Recital	0 credit

Students should enroll in a total of 16 credits from the following courses

BUS-301	Professional Success Within the Fine Arts	4 credits
MUS-218	Popular Music in American Society	4 credits
MUS-227	Music in World Culture	4 credits
MUS-335	Survey of Jazz	4 credits
MAP-118	Private Piano Study Secondary Instrument I	1 credit
MAP-128	Private Piano Study Secondary Instrument II	1 credit
MAP-218	Private Piano Study Secondary Instrument III	1 credit
MAP-250	Private Piano Study Secondary Instrument IV	1 credit
MAP-318	Private Piano Study Secondary Instrument V	1 credit
MAP-350	Private Piano Study Secondary Instrument VI	1 credit
MAP-450	Private Piano Study Secondary Instrument VII	1 credit
MAP-451	Private Piano Study Secondary Instrument VIII	1 credit
MBE-113	Private Brass Study Secondary Instrument I	1 credit
MBE-123	Private Brass Study Secondary Instrument II	1 credit
MBE-213	Private Brass Study Secondary Instrument III	1 credit
MBE-223	Private Brass Study Secondary Instrument IV	1 credit
MBE-313	Private Brass Study Secondary Instrument V	1 credit
MBE-323	Private Brass Study Secondary Instrument VI	1 credit
MBE-413	Private Brass Study Secondary Instrument VII	1 credit
MBE-423	Private Brass Study Secondary Instrument VIII	1 credit
MIE-113	Private Percussion Study Secondary Instrument I	1 credit
MIE-123	Private Percussion Study Secondary Instrument II	1 credit
MIE-213	Private Percussion Study Secondary Instrument III	1 credit
MIE-223	Private Percussion Study Secondary Instrument IV	1 credit
MIE-313	Private Percussion Study Secondary Instrument V	1 credit
MIE-323	Private Percussion Study Secondary Instrument VI	1 credit

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MIE-413	Private Percussion Study Secondary Instrument VII	1 credit	MWE-313	Individual Instruction Woodwind Secondary Instrument V	1 credit
MIE-423	Private Percussion Study Secondary Instrument VII	1 credit	MWE-323	Individual Instruction Woodwind Secondary Instrument VI	1 credit
MSE-113	Private String Study Secondary Instrument I	1 credit	MWE-413	Individual Instruction Woodwind Secondary Instrument VII	1 credit
MSE-123	Private String Study Secondary Instrument II	1 credit	MWE-429	Individual Instruction Woodwind Secondary Instrument VII	1 credit
MSE-213	Private String Study Secondary Instrument III	1 credit	WSA-125	Introduction to Sound for Contemporary Worship	2 credits
MSE-223	Private String Study Secondary Instrument IV	1 credit	WSA-213	Class Guitar	1 credit
MSE-313	Private String Study Secondary Instrument V	1 credit	WSA-214	Class Percussion	1 credit
MSE-323	Private String Study Secondary Instrument VI	1 credit	WSA-330	Philosophy of Music in Worship	4 credits
MSE-413	Private String Study Secondary Instrument VII	1 credit	WSA-408	Sound Recording	2 credits
MSE-423	Private String Study Secondary Instrument VIII	1 credit	WSA-418	Sound Reinforcement	2 credits
MUS-210	Music Appreciation	4 credits	<hr/>		
MUS-215	Lyric Diction for Music Educators	1 credit	Music with an Emphasis in Instrumental Performance Major		
MUS-310	Choral Literature for Music Educators	2 credits	Bachelor of Arts in Music with an Emphasis in Piano Performance		
MUS-327	Band Literature for Music Educators	2 credits	The Bachelor of Arts in Music program is designed for developing musicians who wish to devote themselves to developing musical skills, understanding composition and refining their performance skills. The program is a Bachelor of Arts professional degree, aligned with the National Association of Schools of Music (NASM) standards. The degree allows participation in varied performing ensembles and studies, while simultaneously preparing students for a variety of careers both within and outside the field. Some students enter this program with aspirations of teaching private lessons or owning their own studio. Others wish to pursue their master's degree so they are able to teach studio lessons or other music courses at the collegiate level. Performance scholarships for program majors and/or Pep Band members are available by audition and interview. Students selecting the Bachelor of Arts in Music program will need to determine whether they want to pursue an instrumental, piano or voice emphasis, and a primary instrument must be declared. Private instruction in an applied instrument or voice is required. Additionally, in order to meet NASM professional degree standards, the sixteen (16) elective credits present within the program must be taken from a specified pool of music-related electives. Adherence to this requirement will be checked by the department at regular intervals as part of normal progression through the degree. Integral to the Bachelor of Arts in Music program at Grand Canyon University is the opportunity for students to perform in public. Ensemble concerts and solo recitals, as well as smaller chamber ensembles, are a staple of the musical landscape at GCU. The music program, in conjunction with the theatre program, produces the University's Ethington Theatre series, which presents a series of major productions annually. Auditions for all productions are open to the entire student body.		
MUS-357	Music Composition Seminar	2 credits	Degree Requirements		
MUS-359	Composition Using Music Technology	2 credits	Total General Education		
MUS-370	Piano Literature I	2 credits	Total Music with an Emphasis in Piano Performance Major		
MUS-375	Song Literature I	2 credits	Total Electives		
MUS-376	Song Literature II	2 credits	<hr/>		
MUS-377	Piano Literature II	2 credits	Total Bachelor of Arts in Music with an Emphasis in Piano Performance		
MUS-378	Chamber Music Literature	2 credits	34-40 credits		
MUS-379	Symphonic Music Literature	2 credits	80 credits		
MUS-453	Advanced Conducting	2 credits	0-6 credits		
MVA-119	Private Voice Study Secondary Instrument I	1 credit	<hr/>		
MVA-129	Private Voice Study Secondary Instrument II	1 credit	Total Bachelor of Arts in Music with an Emphasis in Piano Performance		
MVA-219	Private Voice Study Secondary Instrument III	1 credit	120 credits		
MVA-229	Private Voice Study Secondary Instrument IV	1 credit			
MVA-319	Private Voice Study Secondary Instrument V	1 credit			
MVA-329	Private Voice Study Secondary Instrument VI	1 credit			
MVA-419	Private Voice Study Secondary Instrument VII	1 credit			
MVA-429	Private Voice Study Secondary Instrument VIII	1 credit			
MWE-113	Individual Instruction Woodwind Secondary Instrument I	1 credit			
MWE-123	Individual Instruction Woodwind Secondary Instrument II	1 credit			
MWE-213	Individual Instruction Woodwind Secondary Instrument III	1 credit			
MWE-223	Individual Instruction Woodwind Secondary Instrument IV	1 credit			

^ Writing intensive course | ♦ Fulfills General Education requirement | / Honors Major Course | Ω Non-Transferable

Music with an Emphasis in Piano Performance Major

MUS-130	Music Theory	3 credits	MAP-118	Private Piano Study Secondary Instrument I	1 credit
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit	MAP-128	Private Piano Study Secondary Instrument II	1 credit
MAP-120	Private Piano Study Majors I	2 credits	MAP-218	Private Piano Study Secondary Instrument III	1 credit
MEN-306	Canyon Choral Society	0 credits	MAP-250	Private Piano Study Secondary Instrument IV	1 credit
MEN-308	Canyon Chorale	0 credits	MAP-318	Private Piano Study Secondary Instrument V	1 credit
MUS-160	Music Theory II	3 credits	MAP-350	Private Piano Study Secondary Instrument VI	1 credit
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit	MAP-450	Private Piano Study Secondary Instrument VII	1 credit
MAP-130	Private Piano Study Majors II	2 credits	MAP-451	Private Piano Study Secondary Instrument VIII	1 credit
MUS-360^A	Music History I	3 credits	MBE-113	Private Brass Study Secondary Instrument I	1 credit
MUS-262	Music Theory III	3 credits	MBE-123	Private Brass Study Secondary Instrument II	1 credit
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit	MBE-213	Private Brass Study Secondary Instrument III	1 credit
MVC-109	Class Voice (Majors)	1 credits	MBE-223	Private Brass Study Secondary Instrument IV	1 credit
MAP-220	Private Piano Study Majors III	2 credits	MBE-313	Private Brass Study Secondary Instrument V	1 credit
MUS-369^A	Music History II	3 credits	MBE-323	Private Brass Study Secondary Instrument VI	1 credit
MUS-351	Music Theory IV	3 credits	MBE-413	Private Brass Study Secondary Instrument VII	1 credit
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit	MBE-423	Private Brass Study Secondary Instrument VIII	1 credit
MUS-223	Conducting	2 credits	MIE-113	Private Percussion Study Secondary Instrument I	1 credit
MAP-230	Private Piano Study Majors IV	2 credits	MIE-123	Private Percussion Study Secondary Instrument II	1 credit
MUS-393^f	Form and Analysis	3 credits	MIE-213	Private Percussion Study Secondary Instrument III	1 credit
MUS-370^A	Piano Literature I	2 credits	MIE-223	Private Percussion Study Secondary Instrument IV	1 credit
MUS-453^Ω	Advanced Conducting	2 credits	MIE-313	Private Percussion Study Secondary Instrument V	1 credit
MAP-320	Private Piano Study Majors V	2 credits	MIE-323	Private Percussion Study Secondary Instrument VI	1 credit
MUS-394	Counterpoint	3 credits	MIE-413	Private Percussion Study Secondary Instrument VII	1 credit
MUS-377^A	Piano Literature II	2 credits	MIE-423	Private Percussion Study Secondary Instrument VII	1 credit
MAP-330	Private Piano Study Majors VI	2 credits	MSE-113	Private String Study Secondary Instrument I	1 credit
MAP-390^Ω	Junior Recital	0 credit	MSE-123	Private String Study Secondary Instrument II	1 credit
MUS-406	Jazz Techniques	1 credits	MSE-213	Private String Study Secondary Instrument III	1 credit
MUS-326	Orchestration and Arranging	2 credits	MSE-223	Private String Study Secondary Instrument IV	1 credit
MUS-417^Ω	Collaborative Piano I	2 credits	MSE-313	Private String Study Secondary Instrument V	1 credit
MUS-427^Ω	Piano Pedagogy I	2 credits	MSE-323	Private String Study Secondary Instrument VI	1 credit
MAP-420^Ω	Private Piano Study Majors VII	2 credits	MSE-413	Private String Study Secondary Instrument VII	1 credit
MUS-490^Ω	Senior Seminar	0 credit	MSE-423	Private String Study Secondary Instrument VIII	1 credit
MUS-418^Ω	Collaborative Piano II	2 credits			
MUS-428	Piano Pedagogy II	2 credits			
MUS-394	Counterpoint	3 credits			
MAP-430^Ω	Private Piano Study Majors VIII	2 credits			
MAP-490^Ω	Senior Recital	0 credit			
<i>Students should enroll in a total of 16 credits from the following courses</i>					
BUS-301	Professional Success Within the Fine Arts	4 credits			
MUS-218	Popular Music in American Society	4 credits			
MUS-227	Music in World Culture	4 credits			
MUS-335	Survey of Jazz	4 credits			

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

MUS-210	Music Appreciation	4 credits
MUS-215	Lyric Diction for Music Educators	1 credit
MUS-310	Choral Literature for Music Educators	2 credits
MUS-327	Band Literature for Music Educators	2 credits
MUS-357	Music Composition Seminar	2 credits
MUS-359	Composition Using Music Technology	2 credits
MUS-370	Piano Literature I	2 credits
MUS-375	Song Literature I	2 credits
MUS-376	Song Literature II	2 credits
MUS-377	Piano Literature II	2 credits
MUS-378	Chamber Music Literature	2 credits
MUS-379	Symphonic Music Literature	2 credits
MUS-453	Advanced Conducting	2 credits
MVA-119	Private Voice Study Secondary Instrument I	1 credit
MVA-129	Private Voice Study Secondary Instrument II	1 credit
MVA-219	Private Voice Study Secondary Instrument III	1 credit
MVA-229	Private Voice Study Secondary Instrument IV	1 credit
MVA-319	Private Voice Study Secondary Instrument V	1 credit
MVA-329	Private Voice Study Secondary Instrument VI	1 credit
MVA-419	Private Voice Study Secondary Instrument VII	1 credit
MVA-429	Private Voice Study Secondary Instrument VIII	1 credit
MWE-113	Individual Instruction Woodwind Secondary Instrument I	1 credit
MWE-123	Individual Instruction Woodwind Secondary Instrument II	1 credit
MWE-213	Individual Instruction Woodwind Secondary Instrument III	1 credit
MWE-223	Individual Instruction Woodwind Secondary Instrument IV	1 credit
MWE-313	Individual Instruction Woodwind Secondary Instrument V	1 credit
MWE-323	Individual Instruction Woodwind Secondary Instrument VI	1 credit
MWE-413	Individual Instruction Woodwind Secondary Instrument VII	1 credit
MWE-429	Individual Instruction Woodwind Secondary Instrument VII	1 credit
WSA-125	Introduction to Sound for Contemporary Worship	2 credits
WSA-213	Class Guitar	1 credit
WSA-214	Class Percussion	1 credit
WSA-330	Philosophy of Music in Worship	4 credits
WSA-408	Sound Recording	2 credits
WSA-418	Sound Reinforcement	2 credits
Music with an Emphasis in Piano Performance Major		80 credits

Bachelor of Arts in Music with an Emphasis in Voice Performance

The Bachelor of Arts in Music program is designed for developing musicians who wish to devote themselves to developing musical skills, understanding composition and refining their performance skills. The program is a Bachelor of Arts professional degree, aligned with the National Association of Schools of Music (NASM) standards. The degree allows participation in varied performing ensembles and studies, while simultaneously preparing students for a variety of careers both within and outside the field. Some students enter this program with aspirations of teaching private lessons or owning their own studio. Others wish to pursue their master's degree so they are able to teach studio lessons or other music courses at the collegiate level. Performance scholarships for program majors and/or Pep Band members are available by audition and interview. Students selecting the Bachelor of Arts in Music program will need to determine whether they want to pursue an instrumental, piano or voice emphasis, and a primary instrument must be declared. Private instruction in an applied instrument or voice is required. Additionally, in order to meet NASM professional degree standards, the sixteen (16) elective credits present within the program must be taken from a specified pool of music-related electives. Adherence to this requirement will be checked by the department at regular intervals as part of normal progression through the degree. Integral to the Bachelor of Arts in Music program at Grand Canyon University is the opportunity for students to perform in public. Ensemble concerts and solo recitals, as well as smaller chamber ensembles, are a staple of the musical landscape at GCU. The music program, in conjunction with the theatre program, produces the University's Ethington Theatre series, which presents a series of major productions annually. Auditions for all productions are open to the entire student body.

Degree Requirements

Total General Education	34-40 credits
Total Music with an Emphasis in Voice Performance Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Music with an Emphasis in Voice Performance	120 credits

Music with an Emphasis in Voice Performance Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MPC-109	Class Piano I	1 credit
MVA-120	Private Voice Study Majors I	2 credits
MUS-111	Diction: Italian	1 credit
MEN-306	Canyon Choral Society	0 credits
MEN-308	Canyon Chorale	0 credits
MUS-160	Music Theory II	3 credit
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit
MPC-259	Class Piano II	1 credit
MVA-130	Private Voice Study Majors II	2 credits
MUS-211	Diction: German	1 credit

[^] Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

MUS-360^Δ	Music History I	3 credits	MBE-113	Private Brass Study Secondary Instrument I	1 credit
MUS-262	Music Theory III	3 credits	MBE-123	Private Brass Study Secondary Instrument II	1 credit
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit	MBE-213	Private Brass Study Secondary Instrument III	1 credit
MPC-359	Class Piano III	1 credit	MBE-223	Private Brass Study Secondary Instrument IV	1 credit
MUS-112	Diction: French	1 credit	MBE-313	Private Brass Study Secondary Instrument V	1 credit
MVA-220	Private Voice Study Majors III	2 credits	MBE-323	Private Brass Study Secondary Instrument VI	1 credit
MUS-369^Δ	Music History II	3 credits	MBE-413	Private Brass Study Secondary Instrument VII	1 credit
MUS-351	Music Theory IV	3 credits	MBE-423	Private Brass Study Secondary Instrument VIII	1 credit
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit	MIE-113	Private Percussion Study Secondary Instrument I	1 credit
MPC-459^Ω	Class Piano IV	1 credit	MIE-123	Private Percussion Study Secondary Instrument II	1 credit
MUS-223	Conducting	2 credits	MIE-213	Private Percussion Study Secondary Instrument III	1 credit
MVA-230	Private Voice Study Majors IV	2 credits	MIE-223	Private Percussion Study Secondary Instrument IV	1 credit
MUS-393[†]	Form and Analysis	3 credits	MIE-313	Private Percussion Study Secondary Instrument V	1 credit
MUS-375^Δ	Song Literature I	2 credits	MIE-323	Private Percussion Study Secondary Instrument VI	1 credit
MUS-455	Vocal Pedagogy	2 credits	MIE-413	Private Percussion Study Secondary Instrument VII	1 credit
MEN-318^Ω	Collaborative Music Ensemble Majors	0 credit	MIE-423	Private Percussion Study Secondary Instrument VIII	1 credit
MVA-320	Private Voice Study Majors V	2 credits	MSE-113	Private String Study Secondary Instrument I	1 credit
MUS-394	Counterpoint	3 credits	MSE-123	Private String Study Secondary Instrument II	1 credit
MUS-376^Δ	Song Literature II	2 credits	MSE-213	Private String Study Secondary Instrument III	1 credit
MVA-330	Private Voice Study Majors VI	2 credits	MSE-223	Private String Study Secondary Instrument IV	1 credit
MVA-390	Junior Recital	0 credit	MSE-313	Private String Study Secondary Instrument V	1 credit
MUS-406	Jazz Techniques	1 credit	MSE-323	Private String Study Secondary Instrument VI	1 credit
MUS-326	Orchestration and Arranging	2 credits	MSE-413	Private String Study Secondary Instrument VII	1 credit
MVA-420^Ω	Private Voice Study Majors VII	2 credits	MSE-423	Private String Study Secondary Instrument VIII	1 credit
MUS-490^Ω	Senior Seminar	2 credits	MUS-210	Music Appreciation	4 credits
MVA-430^Ω	Private Voice Study Majors VIII	2 credits	MUS-215	Lyric Diction for Music Educators	1 credit
MAP-490^Ω	Senior Recital	0 credit	MUS-310	Choral Literature for Music Educators	2 credits
<i>Students should enroll in a total of 16 credits from the following courses</i>			MUS-327	Band Literature for Music Educators	2 credits
BUS-301	Professional Success Within the Fine Arts	4 credits	MUS-357	Music Composition Seminar	2 credits
MUS-218	Popular Music in American Society	4 credits	MUS-359	Composition Using Music Technology	2 credits
MUS-227	Music in World Culture	4 credits	MUS-370	Piano Literature I	2 credits
MUS-335	Survey of Jazz	4 credits	MUS-375	Song Literature I	2 credits
MAP-118	Private Piano Study Secondary Instrument I	1 credit	MUS-376	Song Literature II	2 credits
MAP-128	Private Piano Study Secondary Instrument II	1 credit	MUS-377	Piano Literature II	2 credits
MAP-218	Private Piano Study Secondary Instrument III	1 credit			
MAP-250	Private Piano Study Secondary Instrument IV	1 credit			
MAP-318	Private Piano Study Secondary Instrument V	1 credit			
MAP-350	Private Piano Study Secondary Instrument VI	1 credit			
MAP-450	Private Piano Study Secondary Instrument VII	1 credit			
MAP-451	Private Piano Study Secondary Instrument VIII	1 credit			

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MUS-378	Chamber Music Literature	2 credits
MUS-379	Symphonic Music Literature	2 credits
MUS-453	Advanced Conducting	2 credits
MVA-119	Private Voice Study Secondary Instrument I	1 credit
MVA-129	Private Voice Study Secondary Instrument II	1 credit
MVA-219	Private Voice Study Secondary Instrument III	1 credit
MVA-229	Private Voice Study Secondary Instrument IV	1 credit
MVA-319	Private Voice Study Secondary Instrument V	1 credit
MVA-329	Private Voice Study Secondary Instrument VI	1 credit
MVA-419	Private Voice Study Secondary Instrument VII	1 credit
MVA-429	Private Voice Study Secondary Instrument VIII	1 credit
MWE-113	Individual Instruction Woodwind Secondary Instrument I	1 credit
MWE-123	Individual Instruction Woodwind Secondary Instrument II	1 credit
MWE-213	Individual Instruction Woodwind Secondary Instrument III	1 credit
MWE-223	Individual Instruction Woodwind Secondary Instrument IV	1 credit
MWE-313	Individual Instruction Woodwind Secondary Instrument V	1 credit
MWE-323	Individual Instruction Woodwind Secondary Instrument VI	1 credit
MWE-413	Individual Instruction Woodwind Secondary Instrument VII	1 credit
MWE-429	Individual Instruction Woodwind Secondary Instrument VII	1 credit
WSA-125	Introduction to Sound for Contemporary Worship	2 credits
WSA-213	Class Guitar	1 credit
WSA-214	Class Percussion	1 credit
WSA-330	Philosophy of Music in Worship	4 credits
WSA-408	Sound Recording	2 credits
WSA-418	Sound Reinforcement	2 credits
Music with an Emphasis in Voice Performance Major		80 credits

Department of Production: Advertising and Public Relations, Digital Design and Digital Film

The Department of Production is committed to the development of strong artistic leaders in the fields of Digital Design—Animation/Web Design and Digital Film—Production/Screenwriting.

The Bachelor of Arts in Digital Design prepares graduates for careers in the expanding digital arts and media fields, including social media and the Web, animation, and print design industries. Students learn to plan, analyze, and create visual solutions to communication problems for the global world. The program focuses on the development of creativity, communication, and

problem-solving skills that demonstrate critical thinking and ethical leadership.

Each Grand Canyon University Digital Film student receives a strong foundation in narrative storytelling, creativity, technical skills, film history, and the hands-on experience necessary to design and deliver effective and affecting stories through the medium of digital film. The integration of scriptwriting and production allows Digital Film graduates a unique breadth of experience which will help prepare them to succeed in the ever-changing marketplace of filmmaking.

Bachelor of Arts in Advertising and Graphic Design

The Bachelor of Arts in Advertising and Graphic Design program develops students into creators of innovative advertising solutions utilizing integrated media strategies. The curriculum includes creative thinking, strategic problem solving, collaboration, brand and campaign development, and technology training for multi-platform campaigns. Students choose an emphasis area in Advertising Design, Public Relations, or Advertising Design Management. Students will be creative drivers of the concept and strategy, those who know the ins and outs of bringing ideas from paper to reality. Central to our curriculum are three Studio courses, where students work on active client projects with their peers. Projects grow in complexity, mirroring the progression of job skills in an advertising agency. Students will graduate with portfolios containing a broad variety of projects, exposure to the advertising industry at both the local and national levels, and possessing skills to match current industry job requests for designers, art directors, and creative specialists.

Technology Requirements

Students can view the programmatic technology requirements in the University Policy Handbook.

Degree Requirements

Total General Education	34-40 credits
Total Advertising and Graphic Design	68 credits
Total Electives	12-18 credits
Total Advertising and Graphic Design	120 credits

Advertising and Graphic Design

DDN-101	Design Thinking	4 credits
ADV-110	Fundamentals of Advertising	4 credits
DDN-110	Design Fundamentals	4 credits
DDN-215	Digital Photography I	4 credits
DDN-120	Production Methods	4 credits
ADV-250	Advanced Design Fundamentals	4 credits
DDN-210	Designing with Type	4 credits
ADV-260	Advertising Copywriting	4 credits
ADV-355	Image Creation	4 credits
ADV-340	Media Law and Ethics	4 credits
DDN-300	Web Design I	4 credits
DDN-350	Web Design II	4 credits
ADV-350	Digital Advertising Communication	4 credits
ADV-371	Design Studio I	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

ADV-456	Design Studio II	4 credits
ADV-471	Design Studio III	
DDN-475	Advanced Design Practicum	4 credits
Advertising and Graphic Design		68 credits

Bachelor of Arts in Digital Design with an Emphasis in Animation

The Bachelor of Arts in Digital Design with an Emphasis in Animation prepares students to enter the expanding world of animation, which is not limited to cartoons. An animation degree prepares graduates to work in a variety of areas including television, film, computer applications and games, technical simulations in manufacturing and medical industries, architectural visualization, new product development, and more.

The foundation of this animation degree includes the study of drawing, color, typography, photography and composition skills. Students study the business aspects of running a design studio and prepare a web-based portfolio of their work. Coursework in the animation degree focuses on the development of creativity, communication and problem-solving skills that demonstrate critical thinking and ethical leadership.

While earning this animation degree, students create digital content in 2D and 3D applications using current industry software including Adobe and Maya products. They work to improve their storytelling skills; develop character models and basic rigging, lighting and textures; and study the development pipeline from story idea to final rendering. Design for motion graphics is included in the study of kinetic type and graphics primarily seen in television and film title sequences.

A student design organization and AIGA chapter are available and students are encouraged to participate. In this way, Grand Canyon University is building a creative community on campus and connecting to the design community. Students are required to have their own laptop and a subscription to the Adobe Creative Cloud for the duration of their program.

Technology Requirements

Students who major in the Bachelor of Arts in Digital Design must purchase specific design-related technology, including hardware and software that will be used throughout all of the courses that comprise the Digital Design major.

Degree Requirements

Total General Education	34-40 credits
Total Digital Design with an Emphasis in Animation Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Digital Design with an Emphasis in Animation	120 credits

Digital Design with an Emphasis in Animation Major

DDN-100	Survey of the Visual Arts	4 credits
DDN-110	Design Fundamentals	4 credits
DDN-120	Production Methods	4 credits
DDN-105	Drawing for the Visual Arts	4 credits
DDN-205	Figure Drawing	4 credits
DDN-210	Designing with Type	4 credits
DDN-220	2D Animation Design	4 credits

DDN-230	Sculpture	4 credits
DDN-305	Drawing for Animation	4 credits
DDN-330	3D Modeling Design I	4 credits
DDN-310	Digital Painting	4 credits
DDN-360	3D Modeling Design II	4 credits
DDN-370	Designing Motion Graphics	4 credits
DDN-340 ^Δ	History of Design	4 credits
DDN-365	3D Animation and the Mechanics of Motion	4 credits
DDN-415	3D Visual Effects and Lighting	4 credits
DDN-400 ^Δ	Business for the Design Professional	4 credits
DDN-412	Short-Film Production	4 credits
DDN-420	Advanced Animation	4 credits
DDN-475 ^Ω	Advanced Design Practicum	4 credits

Digital Design with an Emphasis in Animation Major 80 credits

Bachelor of Arts in Digital Design with an Emphasis in Web Design

This web design degree program, developed for students who aspire to become graphic designers, was designed to prepare students for careers in the expanding digital arts and media fields, including social media and the Web, animation and print design industries. Students learn to plan, analyze and create visual solutions to communication problems for the global world. The web design degree focuses on planning, organizing and designing websites, blogs, tablet applications, magazines and telephone applications. The program focuses on technology, and students learn how to effectively combine technical skills with a creative vision and accurate client information to provide effective communications across multiple devices.

Students in the web design degree program will work with current software products and web coding languages, learning a broad base from which to design and produce websites, applications and interactive documents published to tablets. They create concepts, site maps, artwork and assets to be used in each of these products. The studies of branding and social marketing are integrated throughout the curriculum. The web design degree program foundation includes the study of drawing, color, typography, photography and composition skills. Students study the business aspects of running a design studio and prepare a web-based portfolio of their work. Courses focus on the development of creativity, communication and problem-solving skills that demonstrate critical thinking and ethical leadership.

A student design organization and AIGA chapter are available and students are encouraged to participate. In this way, Grand Canyon University is building a creative community on campus and connecting to the design community. Students are required to have their own laptop and a subscription to the Adobe Creative Cloud for the duration of their program.

Technology Requirements

Students who major in the Bachelor of Arts in Digital Design must purchase specific design-related technology, including hardware and software that will be used throughout all of the courses that comprise the Digital Design major.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

Degree Requirements

Total General Education	34-40 credits
Total Digital Design with an Emphasis in Web Design Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Digital Design with an Emphasis in Web Design	120 credits

Digital Design with an Emphasis in Web Design Major

DDN-100	Survey of the Visual Arts	4 credits
DDN-110	Design Fundamentals	4 credits
DDN-120	Production Methods	4 credits
DDN-215	Digital Photography I	4 credits
DDN-240	User Experience Design	4 credits
DDN-210	Designing with Type	4 credits
DDN-300	Web Design I	4 credits
DDN-355	Content Management Systems	4 credits
DDN-350	Web Design II	4 credits
DDN-315	Digital Photography II	4 credits
DDN-335	Web Applications	4 credits
DDN-430	Programming for the Web I	4 credits
DDN-370	Designing Motion Graphics	4 credits
DDN-340 ^Δ	History of Design	4 credits
DDN-450	Programming for the Web II	4 credits
DDN-455	Designing for New Technologies	4 credits
DDN-400 ^Δ	Business for the Design Professional	4 credits
DDN-440	Interactive Web Design	4 credits
DDN-460	Advanced Web Projects	4 credits
DDN-475 [‡]	Advanced Design Practicum	4 credits

Digital Design with an Emphasis in Web Design Major	80 credits
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Bachelor of Arts in Digital Film with an Emphasis in Production

Grand Canyon University's Bachelor of Arts in Digital Film program develops leaders in the fields of narrative film and video production. The program is built on developing a strong foundation in narrative storytelling, creativity, technical skills, and hands on experience necessary to design and deliver poignant messages.

Degree Requirements

Total General Education	34-40 credits
Total Digital Film with an Emphasis in Production Major	60 credits
Total Electives	20-26 credits
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Total Bachelor of Arts in Digital Film with an Emphasis in Production	120 credits

Digital Film with an Emphasis in Production Major

DFP-101 [‡]	Introduction to Cinema: History and Aesthetics	4 credits
DFP-111	Digital Video Production I	4 credits

DFP-115	Acting for the Camera	4 credits
DFP-221 ^Δ	Screenwriting I	4 credits
DFP-223	Cinematography	4 credits
DFP-225	Nonlinear Editing	4 credits
DFP-331	Visual Storytelling	4 credits
DFP-311 [‡]	Cinema Directing	4 credits
DFP-351	Audio Production for Cinema and Television	4 credits
DFP-301 ^Δ	Film Production Management	4 credits
DFP-451	Digital Production II	4 credits
DFP-455	Advanced Digital Post-Production	4 credits
BUS-301	Professional Success Within the Fine Arts	4 credits
DFP-361	Music Video/Documentary Production	4 credits
DFP-480 ^Ω	Digital Production Practicum	4 credits

Digital Film with an Emphasis in Production Major	60 credits
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Bachelor of Arts in Digital Film with an Emphasis in Screenwriting

Grand Canyon University's Bachelor of Arts in Digital Film program develops leaders in the fields of narrative film and video production. The program is built on developing a strong foundation in narrative storytelling, creativity, technical skills, and hands on experience necessary to design and deliver poignant messages.

Degree Requirements

Total General Education	34-40 credits
Total Digital Film with an Emphasis in Screenwriting Major	60 credits
Total Electives	20-26 credits

Total Bachelor of Arts in Digital Film with an Emphasis in Screenwriting	120 credits
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Digital Film with an Emphasis in Screenwriting Major

DFP-101 [‡]	Introduction to Cinema: History and Aesthetics	4 credits
DFP-111	Digital Video Production I	4 credits
DFP-115	Acting for the Camera	4 credits
DFP-221 ^Δ	Screenwriting I	4 credits
DFP-230	Writing the Genre Film	4 credits
DFP-235	Writing the Character-Centered Screenplay	4 credits
DFP-331	Visual Storytelling	4 credits
DFP-311 [‡]	Cinema Directing	4 credits
DFP-370	Creating Authentic Cinematic Conflict	4 credits
DFP-341	Writing Meaningful Dialogue	4 credits
DFP-460	Creating the Dramatic Television Series	4 credits
DFP-463	Adapting Media to Screenplays	4 credits
BUS-301	Professional Success Within the Fine Arts	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

DFP-457^Δ	Screenwriting II	4 credits
DFP-470	Screenwriting Capstone	4 credits
Digital Film with an Emphasis in Screenwriting Major		60 credits

Department of Theatre

The Department of Theatre provides the foundation needed to pursue careers in academic, professional, and community theatre. Students receive a comprehensive knowledge of the body of dramatic literature, theatre history, and practical experience in the production and performance of drama.

The Department of Theatre, in conjunction with the Department of Music, produces the Grand Canyon University Theatre Series which presents five major productions annually. Additionally, the department offers a student-directed series of productions that are performed on campus. Auditions for all productions are open to the entire student body.

Bachelor of Arts in Theatre and Drama

The Bachelor of Arts in Theatre and Drama program provides students the foundation needed to pursue careers in community and professional theatre, the entertainment industry, and/or graduate study. Students are given the opportunity to receive a comprehensive knowledge of theatre history and dramatic literature, as well as practical experience in production and performance. The Theatre program, in conjunction with the Music program, produces the University Theatre series, which presents a series of major productions annually. Auditions for all of the productions are open to the entire student body. All students entering the program must audition, at which point scholarships may be awarded.

Degree Requirements

Total General Education	34-40 credits
Total Theatre and Drama Major	68 credits
Total Electives	12-18 credits
Total Bachelor of Arts in Theatre and Drama	120 credits

Theatre and Drama Major

TRE-145	Acting I	4 credits
TRE-130	Stagecraft	4 credits
TRE-101	Theatre Participation I	1 credit
TRE-253	Acting II	4 credits
TRE-155	Voice and Movement for the Stage	4 credits
TRE-245	Fundamentals of Theatrical Design	4 credits
TRE-325^Δ	Theatre History I: Greek to Restoration	4 credits
TRE-201	Theatre Participation II	1 credit
TRE-335	Dramatic Literature I	4 credits
TRE-330^Δ	Theatre History II: 18th Century to Present	4 credits
TRE-439[‡]	Stage Direction	4 credits
TRE-301	Theatre Participation III	1 credit
TRE-339	Dramatic Literature II	4 credits
TRE-377	Scenic Design	4 credits

TRE-372	Costume Design	4 credits
TRE-490	The Business of Theatre	4 credits
TRE-401	Theatre Participation IV	1 credit
TRE-441	Stage Direction II	4 credits
TRE-475	Stage Lighting and Design	4 credits

Students should enroll in a total of 4 credits from the following courses

TRE-280	Playwriting	4 credits
TRE-251	Improvisation	4 credits
Arts in Theatre and Drama Major		68 credits

Bachelor of Arts in Theatre for Secondary Education (IP-TL)

(Initial Program - Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Arts in Theatre for Secondary Education (leads to credential) degree program is designed for students interested in teacher certification for the education of children in grades seven through twelve. The format and courses of this regionally accredited and Arizona-approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. Courses are taught by experts in their respective fields who share knowledge and experience in areas of educational psychology, philosophy, methodology, and curriculum development. All courses are directly aligned with the Interstate New Teacher Support and Assessment Consortium (InTASC, April 2011), National Association of Schools of Theatre (NAST-Handbook, 2015-2016), and the International Society of Technology in Education (Standards-T2008) standards. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within many of the courses guide students through over 100 hours of observational and practice-based experiences, and the final semester of the program includes a full-time, 15-week student teaching component. These educational settings must be state certified environments and mentor teachers must be fully certified. Teacher candidates are responsible for contacting their state department of education for certification requirements and program approval. Furthermore, teacher candidates should consult the Grand Canyon University Academic Catalog, the University Policy Handbook, and an academic counselor to obtain information regarding current policies and procedures inherent in a teacher credentialing program. While completing a solid path in theatre content knowledge, learners will complete the methodological courses necessary to become certified secondary educators. All education courses will be offered and designed by the College of Education. Graduates of the Bachelor of Arts in Theatre for Secondary Education program are prepared to become informed educators in public and private schools and other settings requiring a teaching credential. Students and applicants are responsible for contacting their state department of education for certification requirements and program approval. All students entering the program must audition; at which point scholarships may be awarded. The program is designed to train theatre educators and theatre practitioners by blending both the theory and the practice of theatre education/performance and its related fields. In addition to regular classroom studies, students are encouraged to take part in the Ethington Theatre Series in a variety of capacities, including onstage and offstage disciplines, thus allowing learners to explore the creative process from

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

rehearsal to live performance. This global approach to theatre education training creates a graduate who is multi-faceted and prepared to succeed in today's marketplace.

Degree Requirements

Total General Education	34-40 credits
Total Theatre for Secondary Education Major	85 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Theatre for Secondary Education	125 credits

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

TRE-335	Dramatic Literature I	4 credits
TRE-339	Dramatic Literature II	4 credits

Theatre for Secondary Education Major

TRE-145	Acting I	4 credits
TRE-130	Stagecraft	4 credits
TRE-253	Acting II	4 credits
TRE-101	Theatre Participation I	1 credit
SEC-201	Early Adolescent and Adolescent Psychology	4 credits
TRE-325^Δ	Theatre History I: Greek to Restoration	4 credits
TRE-201	Theatre Participation II	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
EDU-330	Social Justice for Educators	4 credits
TRE-245	Fundamentals of Theatrical Design	4 credits
POS-301	Arizona and Federal Government	2 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
TRE-330^Δ	Theatre History II: 18th Century to Present	4 credits
TRE-439	Stage Direction	4 credits
TRE-301	Theatre Participation III	1 credit
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
TRE-475	Stage Lighting and Design	4 credits
TRE-280	Playwriting	4 credits
TRE-401	Theatre Participation IV	1 credit
ESL-445N	Methods of Structured English Immersion for Secondary Education	3 credits
TRE-347	Theatre Methods and Assessment in the Secondary School	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-490^Ω	Student Teaching for Secondary Education	8 credits
Theatre for Secondary Education Major		85 credits
Total Practicum/Field Experience Hours		100 hours

Minors

Minor in Advertising and Graphic Design

Communication using fundamentals of advertising can be used across a variety of disciplines in many settings. The Advertising and Graphic Design minor at Grand Canyon University introduces students to the foundations of design and methods of production. The student is familiarized with a fundamental understanding of advertising principles that have many applications.

DDN-101	Design Thinking	4 credits
DDN-110	Design Fundamentals	4 credits
DDN-120	Production Methods	4 credits
ADV-110	Fundamentals of Advertising	4 credits
Minor in Advertising and Graphic Design		16 credits

Minor in Dance

A minor in Dance is designed to develop a student's physical and cognitive skills and knowledge in the art of dance. Dance studies enhance any other area of study by providing opportunities to develop character, leadership skills, cooperation, and respect for others. Dance reflects cultural influences throughout the world and transcends religious barriers in its ability to communicate universal truths, leading to a shared understanding and expression of the human experience.

DAN-315	Dance History I	4 credits
DAN-355	Dance Kinesiology	4 credits
DAN-100	Ballet I	1 credit
DAN-101	Jazz I	1 credit
DAN-120	Modern I	1 credit
DAN-210	Improvisation	1 credit
DAN-385	Choreography I	2 credits
DAN-250	Ballet II	1 credit
DAN-260	Jazz II	1 credit
DAN-312	Vernacular Dance: Tap I	1 credit
DAN-313	Vernacular Dance: Urban & Hip-Hop I	1 credit
DAN-270	Modern II	1 credit
Minor in Dance		19 credits

Minor in Digital Design

Design principles can be used in a variety of disciplines. In the Minor in Digital Design, students learn fundamental concepts in design theory and practical application in animation and web design. Knowledge in the history of design lays a foundation for understanding design concepts that can be applied in many settings, from simple presentations to complex proposals.

DDN-110	Design Fundamentals	4 credits
DDN-210	Designing with Type	4 credits
DDN-220	2D Animation Design	4 credits
DDN-300	Web Design I	4 credits
DDN-340^Δ	History of Design	4 credits

^Δ Writing intensive course | ♦ Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

DDN-400^A	Business for the Design Professional	4 credits
Minor in Digital Design		24 credits

Minor in Digital Film

The Digital Film Minor introduces students from various programs to the foundation of strong filmmaking. Students study and analyze film history before engaging in production and screenwriting courses. Digital Film Minors are also encouraged to participate in Digital Film events such as the 48 Hour Film Challenge, the GCU Film Festival, and Screenwriting Competition.

DFP-101[‡]	Introduction to Cinema: History and Aesthetics	4 credits
DFP-111	Digital Video Production I	4 credits
DFP-221^Δ	Screenwriting I	4 credits
DFP-225	Nonlinear Editing	4 credits
DFP-311[‡]	Cinema Directing	4 credits
Minor in Digital Film		20 credits

Minor in Music – Instrumental

A minor in Music at Grand Canyon University will enhance any area of study, from Accounting to Worship, and everything in between. Music studies enhance any other area of study by providing opportunities to develop character, creative problem solving, higher level thinking, leadership skills, cooperation and respect for others, and a greater understanding of an individual's place within the Christian World View. All music minors are requested to take the Music Theory Placement Assessment, to determine their level of knowledge in music theory.

MUS-130	Music Theory I	3 credits
MUS-130L	Music Theory I Lab	1 credit
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab	1 credit
Applied Instruction (MBE , MIE , MSE or MWE)		8 credits
Four Semesters of Music Ensemble		0 credit
MUS-210	Music Appreciation	4 credits
MUS-379	Symphonic Literature	2 credits
MUS-223	Conducting	2 credits
Minor in Music - Instrumental		24 credits

Minor in Music – Piano

A minor in Music at Grand Canyon University will enhance any area of study, from Accounting to Worship, and everything in between. Music studies enhance any other area of study by providing opportunities to develop character, creative problem solving, higher level thinking, leadership skills, cooperation and respect for others, and a greater understanding of an individual's place within the Christian World View. All music minors are requested to take the Music Theory Placement Assessment, to determine their level of knowledge in music theory.

MUS-130	Music Theory I	3 credits
MUS-130L	Music Theory I Lab	1 credit
MUS-160	Music Theory II	3 credits

MUS-160L	Music Theory II Lab	1 credit
Applied Instruction/Private Piano Study (MAP)		8 credits
Four Semesters of Music Ensemble (MEN)		0 credit
MUS-210	Music Appreciation	4 credits
MUS-370^A	Piano Literature I	2 credits
MUS-223	Conducting	2 credits
Minor in Music - Piano		24 credits

Minor in Music – Vocal

A minor in Music at Grand Canyon University will enhance any area of study, from Accounting to Worship, and everything in between. Music studies enhance any other area of study by providing opportunities to develop character, creative problem solving, higher level thinking, leadership skills, cooperation and respect for others, and a greater understanding of an individual's place within the Christian World View. All music minors are requested to take the Music Theory Placement Assessment, to determine their level of knowledge in music theory.

MUS-130	Music Theory I	3 credits
MUS-130L	Music Theory I Lab	1 credit
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab	1 credit
Applied Instruction/Private Voice Study (MVA)		8 credits
Four Semesters of Music Ensemble		0 credit
MUS-210	Music Appreciation	4 credits
MUS-111	Italian Diction	1 credit
MUS-211	German Diction	1 credit
MUS-223	Conducting	2 credits
Minor in Music - Vocal		24 credits

Minor in Theatre

A Minor in Theatre and Drama at Grand Canyon University will enhance any area of study, from Accounting to Worship, and everything in between. A theatre minor is the perfect way to develop individual strengths and interpersonal skills such as speaking techniques, practical methods of creating trust and attaining goals, creative problem solving, higher level thinking, teamwork, and a greater understanding of an individual's place within the Christian World View.

TRE-130	Stagecraft	4 credits
TRE-145	Acting I	4 credits
TRE-439[‡]	Stage Direction	4 credits
TRE-245	Fundamentals of Theatrical Design	4 credits

One of the following two courses:

TRE-325^{ΔA}	Theatre History I: Greek to Restoration	4 credits
TRE-330^{ΔA}	Theatre History II: 18th Century to Present	4 credits

One of the following two courses:

TRE-335	Dramatic Literature I	4 credits
TRE-339	Dramatic Literature II	4 credits

Minor in Theatre		24 credits
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^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Δ Non-Transferable

^ Writing intensive course | ♦ Fulfills General Education requirement | ¢ Honors Major Course | ¤ Non-Transferable

The College of Humanities and Social Sciences

College Description

The College of Humanities and Social Sciences (CHSS) is dedicated to providing its learners with rigorous programs and the highest levels of pedagogy. Faculty and staff work to create a Christian-based learning environment focused on expanding students' understanding while preparing them for professional environments. Using practical experiences students learn in-depth knowledge of their fields of study, problem solving skills, rational thinking, leadership, and effective communication. Faculty and staff build meaningful relationships with students through extracurricular communities related to their discipline of study.

College Mission

The College of Humanities and Social Sciences promotes research, creativity, ethical formation, and inquiry through critical, analytic, and interdisciplinary study. The college's mission cultivates leaders in various fields of study through critical thinking and applied experience; linking theoretical foundations with practical application. Dynamic programs of study in the humanities and social sciences provoke inquiry and originality that prepare learners for diverse and ever-changing workplaces. Students are challenged to be curious, innovative, collaborative, and reflective in addressing the problems of tomorrow and to consider the institution's Christian heritage within their learning experiences. The college prepares students to be lifelong learners and evolving thinkers in an increasingly complex and diverse world.

Humanities Programs

The Humanities programs are designed to tell the stories, stimulate the ideas, and provide the words that help students make sense of their lives and the world in which they live. The programs introduce students to people and cultures that they have never met or experienced, places they have never seen or visited, and ideas that may have never crossed their minds. Through study of how others have lived and thought about life, students will begin to discern what is important in their own lives and what they might do to make them better, what is right or wrong, and the impact that heritage and history have on their thoughts and experiences. Graduates of the humanities programs will enter the workforce with a solid understanding of themselves and the human conditions. They will have the cultural knowledge and communication skills to address the challenges that we face together in our families, our communities, our nation, and our global society.

Bachelor of Arts in Communication

Students majoring in communication engage in a thoughtful exploration of how the construction of messages, communicator characteristics, and contextual factors influence professional and personal lives. The Bachelor of Arts in Communications program at GCU provides opportunities for scholarship in organizational, political, mass mediated, interpersonal, and intercultural communication contexts. The organizational emphasis allows students to focus on communication skills directly applicable to public relations, political communication, human resources, sales, and marketing. This program, like the greater GCU community, embodies Christian virtues in the way people communicate with each another. Faculty act as guides, collaborators, and mentors as students find their purpose.

Students who earn their degree in communication work in a wide variety of contexts. Students at GCU learn the skills necessary to

be competitive in both profit and nonprofit sectors. Common careers for communication majors with an organizational emphasis are public relations specialists, corporate trainers, campaign managers, community action directors, account executives, sales representatives, and human resource coordinators.

Degree Requirements

Total General Education	34-40 credits
Total Communication Major	48 credits
Total Electives	32-38 credits
Total Bachelor of Arts in Communication	120 credits

Communication Major

COM-100	Fundamentals of Communication	4 credits
COM-222	Small Group Communication	4 credits
COM-263^A	Elements of Intercultural Communication	4 credits
PHI-305	Ethical Thinking in the Liberal Arts	4 credits
COM-355	Communication Research Methods	4 credits
COM-312	Conflict and Negotiation	4 credits
COM-451^{1A}	Relational Communication	4 credits
COM-362^f	Argumentation and Advocacy	4 credits
COM-370	Principles of Public Relations	4 credits
COM-456	Organizational Communication	4 credits
COM-472	Training and Development	4 credits
COM-475	Communication Campaigns	4 credits
Communication Major		48 credits

Bachelor of Arts in English with an Emphasis in Professional Writing

Grand Canyon University's Bachelor of Arts in English with Emphasis in Professional Writing degree program is designed to prepare students to become effective writers in the 21st century. The program leads students to develop advanced writing skills and to prepare a wide range of documents for diverse audiences, environments, and disciplinary communities. In addition to professional writing courses, students will study literature and informational texts, as well as rhetoric and composition, to enrich critical thinking and analysis and to enhance foundational knowledge in the study of English. This program is designed for students interested in careers such as journalism, publishing, technical writing, non-profit writing, grant writing, social media

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

writing, public relations and advertising writing, and science writing

Degree Requirements

Total General Education	34-40 credits
Total English with an Emphasis in Professional Writing Major	44 credits
Total Electives	36-42 credits
Total Bachelor of Arts in English with an Emphasis in Professional Writing	120 credits

English with an Emphasis in Professional Writing

ENG-240 ^Δ	Writing for the 21st Century Workplace	4 credits
ENG-245 ^Δ	Introduction to Basic Grant Writing	4 credits
ENG-355	Multicultural Literature	4 credits
ENG-360	American Encounter Narratives	4 credits
ENG-361	The Art and Craft of Creative Writing	4 credits
ENG-381	Writing for Advertising and PR	4 credits
ENG-365	Multi-Media Journalism in the 21st Century	4 credits
COM-362	Argumentation and Advocacy	4 credits
ENG-466 ^Δ	Technical Writing	4 credits
ENG-456 ^Δ	Communicating Scientific Ideas to Popular Audiences	4 credits
ENG-477 ^Ω	Professional Writing Capstone	4 credits
English with an Emphasis in Professional Writing Major		44 credits

Bachelor of Arts in English for Secondary Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Arts in English for Secondary Education degree program is designed to provide future middle and high school teachers with skills in comprehending and interpreting texts, thinking critically about texts in a number of media, and effectively expressing their ideas orally and in writing. The format and courses of this regionally accredited and Arizona State Board of Education approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. By studying works of literature in context, focusing on particular authors and genres of literature, and analyzing the English language, students will be introduced to diverse artistic expressions. They will grapple with major issues and themes common to human life. Writing courses within the major will give students further practice in effective communication for a variety of media. Emphasis will be given to examining and implementing methodologies needed to teach writing, texts, and language to adolescents, enabling majors in this area to make informed, context-based decisions about instruction at the middle and secondary levels. Teacher candidates must have access to a grade 6-12 classroom to complete the program and practicum assignments, which guide them through 100 hours of observational experiences. The final semester of this Secondary Education program includes a full-time, 15-week student teaching component. Candidates are responsible for contacting their state department of education for licensure requirements and program approval.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Degree Requirements

Total General Education	34-40 credits
Total English for Secondary Education Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Arts in English for Secondary Education	120 credits
Total Practicum/Field Experience	85 hours

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

HIS-144	U.S. History Themes	4 credits
ENG-130	Introduction to Young Adult Literature	4 credits

English for Secondary Education Major

SEC-201	Early Adolescent and Adolescent Psychology	4 credits
ENG-240 ^Δ	Writing for the 21st Century Workplace	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
EDU-330 ^Δ	Social Justice for Educators	4 credits
GOV-260	Arizona Constitution & Government	1 credit
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
ENG-357	Foundational Texts of British Literature	4 credits
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
ENG-355	Multicultural Literature	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
ENG-360	American Encounter Narratives	4 credits
ESL-445 ^N	Methods of Structured English Immersion for Secondary Education	3 credits
ENG-470	Methods for Teaching Writing, Grammar and Linguistics for Secondary Education	4 credits
ENG-451 [‡]	Shakespeare and the History of Drama	4 credits
ENG-460	The Novel	4 credits
ENG-359	Transatlantic Literature	4 credits
ENG-456 ^Δ	Communicating Scientific Ideas to Popular Audiences	4 credits
ENG-472	Methods for Teaching Literature for Secondary Education	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-490 ^Ω	Student Teaching for Secondary Education	8 credits
English for Secondary Education Major		80 credits

Bachelor of Arts in Government with an Emphasis in Legal Studies

The degree in Government with an Emphasis in Legal Studies is designed to provide students with a solid foundation in the skills,

knowledge, and ethical leadership to excel in law school. Rooted in the study of politics and policy, the emphasis provides additional interdisciplinary course work in communication, justice studies, philosophy, business, and theology.

*Program completion does not guarantee acceptance into law school.

Degree Requirements

Total General Education	34-40 credits
Total Government with an Emphasis in Legal Studies Major	44 credits
Total Electives	36-42 credits
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Total Bachelor of Arts in Government with an Emphasis in Legal Studies	120 credits

Government with an Emphasis in Legal Studies Major

GOV-140	American Government and Politics	4 credits
GOV-210	Introduction to Comparative Government and International Politics	4 credits
GOV-307^f	Introduction to Political Theory	4 credits
GOV-358	Research Methods in Government and Politics	4 credits
GOV-378^Δ	American Constitution	4 credits
GOV-364	Public Policy Analysis	4 credits
GOV-357	Philosophy of Law	4 credits
GOV-360	Civil Law	4 credits
JUS-430	Criminal Law	4 credits
GOV-455	Practice of Law	4 credits
GOV-459^Δ	Government Capstone	4 credits
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Government with an Emphasis in Legal Studies Major		44 credits

Bachelor of Arts in Government with an Emphasis in State and Local Public Policy

The degree in Government with an Emphasis in State and Local Public Policy is designed to provide political leadership in the local and state arena. Students will study the inner workings of local and state government, as well as the public policies that are necessary for sustaining and improving the lives of people in their local and state communities.

Degree Requirements

Total General Education	34-40 credits
Total Government with an Emphasis in State and Local Public Policy Major	44 credits
Total Electives	36-42 credits
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Total Bachelor of Arts in Government with an Emphasis in State and Local Public Policy	120 credits

Government with an Emphasis in State and Local Public Policy Major

GOV-140	American Government and Politics	4 credits
GOV-210	Introduction to Comparative Government and International Politics	4 credits
GOV-307^f	Introduction to Political Theory	4 credits

GOV-358	Research Methods in Government and Politics	4 credits
GOV-378^Δ	American Constitution	4 credits
GOV-364	Public Policy Analysis	4 credits
GOV-366	State and Local Government	4 credits
GOV-376	Municipal Government and Administration	4 credits
GOV-351	Public Administration	4 credits
GOV-467	Special Topics in Federal-State-Local Relations	4 credits
GOV-459^Δ	Government Capstone	4 credits
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Government with an Emphasis in State and Local Public Policy Major		44 credits

Bachelor of Arts in History for Secondary Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Arts in History for Secondary Education degree program is designed to provide future middle and high school teachers with the content knowledge they need to be successful teachers of history and social studies. While completing a solid path in historical content, learners will complete the methodological courses necessary to become certified secondary educators. All education courses will be designed and offered by the College of Education. The format and courses of this regionally accredited and Arizona State Board of Education approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. Teacher candidates will attain an extensive breadth and depth of content knowledge as well as research-based pedagogical practices prior to entering the classroom. This program prepares graduates to use the skills of the historian such as research, critical thinking, and effective communication in their future educational settings. Teacher candidates must have access to a grade 6-12 classroom to complete the program and practicum assignments, which guide them through 85 hours of observational experiences. The final semester of this Secondary Education program includes a full-time, 15-week student teaching component. Candidates are responsible for contacting their state department of education for licensure requirements and program approval.

Degree Requirements

Total General Education	34-40 credits
Total History for Secondary Education Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in History for Secondary Education	120 credits
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Total Practicum/Field Experience	85 hours

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

HIS-110	World History Themes	4 credits
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History for Secondary Education Major		
SEC-201	Early Adolescent and Adolescent Psychology	4 credits
HIS-144	U.S. History Themes	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

HIS-306	Historians in Theory and Practice	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
EDU-330^A	Social Justice for Educators	4 credits
GOV-260	Arizona Constitution & Government	1 credit
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
HIS-255^A	Historical Research and Applied Methods	4 credits
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
HIS-325	Ancient Mediterranean History	4 credits
HIS-350^f	Survey of Asian Empires	4 credits
ESL-445N	Methods of Structured English Immersion for Secondary Education	3 credits
HIS-450^f	U.S. History Since 1945	4 credits
HIS-386^A	War and Revolution	4 credits
HIS-327	Community History	4 credits
HIS-466^f	Southwest Borderlands	4 credits
HIS-304	Methods of Teaching History in Secondary Schools	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-490^Ω	Student Teaching for Secondary Education	8 credits
History for Secondary Education Major		80 credits

Bachelor of Arts in History

Grand Canyon University's Bachelor of Arts in History degree program allows students to study the past as a means of understanding the complexity of the world today. Earning a history degree affords graduates essential skills including critical thinking and writing. These proficiencies may prepare graduates for careers in teaching, public service, government, policy making, communication, or business management. A history degree allows students to develop the skills and knowledge associated with a liberal arts degree, while providing an orientation to the complexity and diversity of the world through a disciplined study of the past, necessary to compete in a global economy. This degree program provides graduates with foundational structures that may prepare them for graduate degrees in business, history, or law.

Degree Requirements

Total General Education	34-40 credits
Total History Major	48 credits
Total Electives	32-38 credits
Total Bachelor of Arts in History	120 credits

History Major

HIS-110	World History Themes	4 credits
HIS-255^A	Historical Research and Applied Methods	4 credits
HIS-144	U.S. History Themes	4 credits

HIS-306	Historians in Theory and Practice	4 credits
HIS-350	Survey of Asian Empires	4 credits
HIS-386^A	War and Revolution	4 credits
HIS-325	Ancient Mediterranean History	4 credits
HIS-463	Women in History	4 credits
HIS-380	Renaissance and Reformation	4 credits
HIS-450^f	U.S. History Since 1945	4 credits
HIS-466^f	Southwest Borderlands	4 credits
HIS-426	20 th Century Europe	4 credits
History Major		48 credits

Bachelor of Arts in Spanish

The Bachelor of Arts in Spanish prepares students with active communication skills, cultural and historical awareness, and viable professional skills for careers in every area of life. Courses in the program provide students with foundational skills in conversation, reading and writing through advanced language studies in literature, history, and contemporary issues.

Degree Requirements

Total General Education	34-40 credits
Total Spanish Major	44 credits
Total Electives	36-42 credits
Total Bachelor of Arts in Spanish	120 credits

Spanish Major

SPA-214	Intermediate Spanish I	4 credits
SPA-224	Intermediate Spanish II	4 credits
SPA-310^A	Spanish Composition and Grammar	4 credits
SPA-309	Spanish Conversation	4 credits
SPA-320^f	Contemporary Issues	4 credits
SPA-341^{A,Ω}	Introduction to Literature in Spanish	4 credits
SPA-410^{f,Ω}	Theory and Methodology for Translation and Interpretation	4 credits
SPA-420^Ω	Spanish for Professions I	4 credits
SPA-440^Ω	Web-Based Resources and Technology for Translation and Interpretation	4 credits
SPA-430^Ω	Spanish for Professions II	4 credits
SPA-450^Ω	Spanish Capstone	4 credits
Spanish Major		44 credits

Bachelor of Science in Mathematics for Secondary Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

Grand Canyon University's Bachelor of Science in Mathematics for Secondary Education program is designed to provide future teachers with the content and pedagogical knowledge for success in teaching mathematics. The format and courses of this regionally accredited and Arizona State Board of Education approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. Graduates will be prepared with the critical thinking and general problem-solving skills to tackle difficult problems

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

from any field and to prepare their own students to do the same. With a balanced program of applied and theoretical mathematics and education courses, students complete a solid curriculum of mathematics content while developing the methodological expertise necessary to become effective and skilled secondary educators. Teacher candidates must have access to a grade 6-12 classroom to complete the program and practicum assignments, which guide them through 85 hours of observational experiences. The final semester of this Secondary Education program includes a full-time, 15-week student teaching component. Candidates are responsible for contacting their state department of education for licensure requirements and program approval

Degree Requirements

Total General Education	34-40 credits
Total Mathematics for Secondary Education Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Science in Mathematics for Secondary Education	120 credits
Total Practicum/Field Experience	85 hours

Required General Education

(Included in General Education totals credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

[HIS-144](#) U.S. History Themes 4 credits

(Included in General Education totals credits, applied to the Critical Thinking competency.)

[MAT-261](#) Pre-Calculus 4 credits

Mathematics for Secondary Education Major

[SEC-201](#) Early Adolescent and Adolescent Psychology 4 credits

[MAT-252](#) Calculus and Analytic Geometry I 4 credits

[SPD-200](#) Survey of Special Education: Mild to Moderate Disabilities 4 credits

[EDU-330^A](#) Social Justice for Educators 4 credits

[MAT-274](#) Probability and Statistics 4 credits

[GOV-260](#) Arizona Constitution & Government 1 credit

[MAT-253](#) Calculus and Analytic Geometry II 4 credits

[MAT-380](#) Mathematics for the Secondary Educator 4 credits

[SEC-345](#) Content Area Literacy for Middle and Secondary Teachers 4 credits

[MAT-345](#) Applied Linear Algebra I 4 credits

[SEC-355](#) Middle and Secondary Curriculum and Assessment 4 credits

[SEC-455](#) Classroom Engagement and Management for Middle and Secondary Teachers 4 credits

[MAT-312^F](#) Higher Geometry 4 credits

[MAT-215](#) Discrete Mathematics 4 credits

[ESL-445N](#) Methods of Structured English Immersion for Secondary Education 3 credits

[MAT-225](#) Mathematics and Technology through Time 4 credits

[MAT-470^{FA}](#) Mathematical Modeling 4 credits

MAT-480	Methods of Teaching Mathematics in Secondary Schools	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-490	Student Teaching for Secondary Education Teacher Candidates	8 credits
Mathematics for Secondary Education Major		80 credits

Master of Arts in Communication with an Emphasis in Education

Grand Canyon University's Master of Arts in Communication with an Emphasis in Education program prepares students for teaching undergraduate courses at the 2-year or 4-year institution in both ground and online modalities. The program balances communication content (e.g., intercultural and relational) with pedagogy to create a unique program that satisfies the requirements for ongoing professional development. Furthermore, graduates of this program will be able to fulfill the graduate course requirements necessary for opportunities in teaching at the postsecondary level.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
COM-500	Relationships in the Workplace	4 credits
COM-505	Organizations, Culture, and Society	4 credits
EDU-534	Effective Pedagogy for Higher Education	4 credits
COM-510	Strategic Communication	4 credits
COM-515	Training, Learning and Pedagogy	4 credits
EDU-548	Curricular and Instructional Methods in Higher Education	4 credits
COM-520	Media Literacy	4 credits
COM-525	Organizational Communication	4 credits

Master of Arts in Communication with an Emphasis in Education 34 credits

Master of Arts in English with an Emphasis in Education

Grand Canyon University's Master of Arts in English with an Emphasis in Education program prepares students for teaching undergraduate courses at two-year or four-year institutions of higher learning in both ground and online modalities. Including courses in rhetoric, literature, and pedagogy, this unique program provides advanced training in the field of English, while satisfying the requirements for ongoing professional development.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
ENG-503	Writing Theory: An Applied Approach to Rhetoric and Composition	4 credits
ENG-506	Social and Technological Contexts of Writing	4 credits
EDU-534	Effective Pedagogy for Higher Education	4 credits
ENG-507	Grant Writing	4 credits

^A Writing intensive course | [♦] Fulfills General Education requirement | ^F Honors Major Course | ^Ω Non-Transferable

ENG-505	Critical Practices for Teaching Literature	4 credits
EDU-548	Curricular and Instructional Methods in Higher Education	4 credits
ENG-508	Multimedia Writing: Creating a Campaign for Social Media	4 credits
ENG-509	Applied Theories of Rhetoric and Organizational Communication	4 credits
Master of Arts in English with an Emphasis in Education		34 credits

Master of Arts in History with an Emphasis in Education

Grand Canyon University's Master of Arts in History with an Emphasis in Education program prepares students for teaching undergraduate courses at the 2-year or 4-year institution in both ground and online modalities. Balancing history content with pedagogy and classroom techniques, this unique program offers a pathway to obtaining advanced training in the field of history while satisfying the requirements for ongoing professional development. Additionally, graduates of this program will be able to fulfill the graduate course requirements necessary for opportunities in teaching at the postsecondary level.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
HIS-510	Concepts in Understanding World History	4 credits
HIS-544	Concepts in Understanding U.S. History	4 credits
EDU-534	Effective Pedagogy for Higher Education	4 credits
HIS-530	Applied Studies in History Graduate Education	4 credits
HIS-555	Studies in the American West	4 credits
EDU-548	Curricular and Instructional Methods in Higher Education	4 credits
HIS-565	Historical Perspectives of Race, Class, Gender, & Ethnicity	4 credits
HIS-570	Graduate Research Seminar in History	4 credits
Master of Arts in History with an Emphasis in Education		34 credits

Master of Science in Mathematics with an Emphasis in Education

Grand Canyon University's Master of Science in Mathematics with an Emphasis in Education program focuses on deeper understanding of mathematics while instilling the best practices in pedagogy. Redefining the graduate degree for professionals who would like to be the change-makers in higher education, graduates will grasp the conceptual knowledge of mathematics, which will drive their teaching in the classroom. Through a combined program of study offering graduate credits in mathematics and graduate credits in higher education teaching, the program open doors for its graduates and redefines mathematics education at the college level.

Degree Requirements

UNV-509 ^Ω	Introduction to Graduate Studies in Mathematics	2 credits
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MAT-513	Graduate Algebra	4 credits
MAT-525	History of Mathematical Thought	4 credits
EDU-534	Effective Pedagogy for Higher Education	4 credits
MAT-571	Real Analysis	4 credits
MAT-505	Discrete Math: Data-Analysis	4 credits
EDU-548	Curricular and Instructional Methods in Higher Education	4 credits
MAT-550	Mathematical Modeling	4 credits
MAT-552	Applied Nonlinear Dynamics	4 credits

Master of Science in Mathematics with an Emphasis in Education 34 credits

Graduate Certificate of Completion in Communication

The Graduate Certificate in Communication prepares students with the content expertise required to teach Communication coursework at a 2-year or 4-year institution of higher learning in both ground and online modalities. Including courses in relationships, strategic communication, training, and media literacy, this unique program provides advanced training in the field of Communication, while satisfying the requirements for ongoing professional development.

Degree Requirements

COM-500	Relationships in the Workplace	4 credits
COM-505	Organizations, Culture, and Society	4 credits
COM-510	Strategic Communication	4 credits
COM-515	Training, Learning and Pedagogy	4 credits
COM-520	Media Literacy	4 credits

Graduate Certificate of Completion in Communication 20 credits

Graduate Certificate of Completion in English

The Graduate Certificate in English prepares students with the content expertise required to teach English coursework at a 2-year or 4-year institution of higher learning in both ground and online modalities. Including courses in rhetoric, literature, and pedagogy, this unique program provides advanced training in the field of English, while satisfying the requirements for ongoing professional development.

Degree Requirements

ENG-503	Writing Theory: An Applied Approach to Rhetoric and Composition	4 credits
ENG-506	Social and Technological Contexts of Writing	4 credits
ENG-507	Grant Writing	4 credits
ENG-505	Critical Practices for Teaching Literature	4 credits
ENG-508	Multimedia Writing: Creating a Campaign for Social Media	4 credits

Graduate Certificate of Completion in English 20 credits

Graduate Certificate of Completion in History

The Graduate Certificate in History prepares students with the content expertise required to teach History coursework at a 2-

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

year or 4-year institution of higher learning in both ground and online modalities. Including courses in world history, U.S. history, and historical perspectives, this unique program provides advanced training in the field of History, while satisfying the requirements for ongoing professional development.

Degree Requirements

HIS-510	Concepts in Understanding World History	4 credits
HIS-544	Concepts in Understanding U.S. History	4 credits
HIS-530	Applied Studies in History Graduate Education	4 credits
HIS-555	Studies in the American West	4 credits
HIS-565	Historical Perspectives of Race, Class, Gender, & Ethnicity	4 credits
Graduate Certificate of Completion in History		20 credits

Graduate Certificate of Completion in Mathematics

The Graduate Certificate in Mathematics prepares students with content expertise required to teach Mathematics coursework at a 2-year or 4-year institution of higher learning in both ground and online modalities. Content rich, focusing on deeper understanding of Mathematics. Students completing this certificate will grasp the conceptual knowledge of Mathematics which will drive their teaching in the classroom.

Degree Requirements

UNV-509	Introduction to Graduate Studies in Mathematics	2 credits
MAT-513	Graduate Algebra	4 credits
MAT-525	History of Mathematical Thought	4 credits
MAT-505	Discrete Math: Data-Analysis	4 credits
MAT-550	Mathematical Modeling	4 credits
MAT-552	Applied Nonlinear Dynamics	4 credits
Graduate Certificate of Completion in Mathematics		22 credits

Social and Behavioral Studies Programs

The Social and Behavioral Studies programs prepare students to understand, predict, and treat human behavior at both individual and societal levels. Depending on the program that is chosen, students are able to choose career paths that could involve direct patient care and treatment, justice services, social study, the development of impact initiatives, organizational understanding, human resource management, individual behavioral study and research, or consulting, to name a few. Graduates of the Social and Behavioral Studies programs will develop greater understanding and predictive knowledge of behavior at both the individual and societal levels that will provide significant impact on the overall behavioral health and wellness of society and its members.

Bachelor of Science in Behavioral Health Science

Grand Canyon University's Bachelor of Science in Behavioral Health Science degree is designed to prepare students to work as behavioral health technicians or specialists in various settings as

members of a clinical team. This program offers students an exhaustive study of human behavior. It prepares students to work in behavioral health, counseling, health services management, human services, government, and law enforcement. Additionally, this curriculum offers a strong foundation for students who want to pursue a master's degree in counseling, criminal justice, clinical or forensic psychology, or human services.

Degree Requirements

Total General Education	34-40 credits
Total Behavioral Health Science Major	48 credits
Total Electives	32-40 credits
Total Bachelor of Science in Behavioral Health Science	120 credits

Behavioral Health Science Major

PCN-100	Foundations of Addiction and Substance Use Disorders	4 credits
PCN-107	Introduction to Counseling Theories	4 credits
BHS-240	Group Dynamics and Process	4 credits
BHS-320^Δ	Ethics of Behavioral Health Science	4 credits
BHS-330	Cultural and Social Diversity in Behavioral Health	4 credits
BHS-420	Human Development	4 credits
PSY-470^{Δ†}	Abnormal Psychology	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
BHS-350	Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
BHS-430[†]	Introduction to Family Dynamics	4 credits
BHS-440	Understanding Trauma	4 credits
BHS-490^Ω	Professional Capstone Project	4 credits
Behavioral Health Science Major		48 credits

Bachelor of Science in Behavioral Health Science with an Emphasis in Childhood and Adolescence Disorders

Grand Canyon University's Bachelor of Science in Behavioral Health Science degree with an Emphasis in Childhood and Adolescence Disorders is designed to prepare students to work as behavioral health technicians or specialists in various settings as members of a clinical team. This program offers students a comprehensive study of childhood and adolescent development and behavior, in particular understanding childhood and adolescence disorders. It prepares students to work in the fields of behavioral health, counseling, health services management, human services, government, and law enforcement. Additionally, this curriculum offers a strong foundation for students who want to pursue a master's degree in counseling, criminal justice, clinical or forensic psychology, or human services.

Degree Requirements

Total General Education	34-40 credits
Total Behavioral Health Science with an Emphasis in Childhood and Adolescence Disorders Major	56 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Total Electives	24-30 credits
Total Bachelor of Science in Behavioral Health Science with an Emphasis in Childhood and Adolescence Disorders	120 credits
Behavioral Health Science with an Emphasis in Childhood and Adolescence Major	
PCN-100 Foundations of Addiction and Substance Use Disorders	4 credits
PCN-107 Introduction to Counseling Theories	4 credits
BHS-240 Group Dynamics and Process	4 credits
BHS-320^Δ Ethics of Behavioral Health Science	4 credits
BHS-330 Cultural and Social Diversity in Behavioral Health	4 credits
BHS-420 Human Development	4 credits
PSY-470^{Δ†} Abnormal Psychology	4 credits
PSY-380 Introduction to Probability and Statistics	4 credits
BHS-350 Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
BHS-430[‡] Introduction to Family Dynamics	4 credits
BHS-440 Understanding Trauma	4 credits
BHS-450 Childhood and Adolescence Disorders	4 credits
BHS-455 Introduction to Childhood and Adolescent Physical and Behavioral Health	4 credits
BHS-490^Ω Professional Capstone Project	4 credits
Behavioral Health Science with an Emphasis in Childhood and Adolescence Disorders Major	56 credits

Bachelor of Science in Behavioral Health Science with an Emphasis in Family Dynamics

Grand Canyon University's Bachelor of Science in Behavioral Health Science degree with an Emphasis in Family Dynamics is designed to prepare students to work as behavioral health technicians or specialists in various settings as members of a clinical team. This program offers students a comprehensive study of dynamics as it relates to couples and family systems. It prepares students to work in behavioral health, counseling, health services management, human services, government, and child welfare systems. Additionally, this curriculum offers a strong foundation for students who want to pursue a master's degree in counseling, criminal justice, clinical or forensic psychology, or human services.

Degree Requirements

Total General Education	34-40 credits
Total Behavioral Health Science with an Emphasis in Family Dynamics	56 credits
Total Electives	24-30 credits
Total Bachelor of Science in Behavioral Health Science with an Emphasis in Family Dynamics	120 credits

Behavioral Health Science with an Emphasis in Family Dynamics

PCN-100 Foundations of Addiction and Substance Use Disorders	4 credits
PCN-107 Introduction to Counseling Theories	4 credits
BHS-240 Group Dynamics and Process	4 credits
BHS-320^Δ Ethics of Behavioral Health Science	4 credits
BHS-330 Cultural and Social Diversity in Behavioral Health	4 credits
BHS-420 Human Development	4 credits
PSY-470^{Δ†} Abnormal Psychology	4 credits
PSY-380 Introduction to Probability and Statistics	4 credits
BHS-350 Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
BHS-430[‡] Introduction to Family Dynamics	4 credits
BHS-440 Understanding Trauma	4 credits
BHS-460 Introduction to Couples and Family Systems	4 credits
BHS-465 Marriage and Family Ethical and Legal Issues	4 credits
BHS-490^Ω Professional Capstone Project	4 credits
Behavioral Health Science with an Emphasis in Family Dynamics	56 credits

Bachelor of Science in Behavioral Health Science with an Emphasis in Infancy and Early Childhood Studies

Grand Canyon University's Bachelor of Science in Behavioral Health Science with an Emphasis in Infancy and Early Childhood Studies program is designed for students interested in becoming behavioral health technicians or specialists in various settings as members of a clinical team, particularly in the fast-growing specialization in the Infancy and Early Childhood field. The program provides students with an introductory study on the development and behavior of infants and young children. Students will gain the knowledge and skills necessary to work with young children and advocate the importance of the family system and caregiving environment to the well-being of infants and young children. Graduates of this degree program will be prepared for careers in behavioral health, health services management, human services, government, and law enforcement.

Degree Requirements

Total General Education	34-40 credits
Total Behavioral Health Science with an Emphasis in Infancy and Early Childhood Studies	56 credits
Total Electives	24-30 credits
Total Bachelor of Science in Behavioral Health Science with an Emphasis in Family Dynamics	120 credits

Behavioral Health Science with an Emphasis in Infancy and Early Childhood Studies

PCN-100 Foundations of Addiction and Substance Use Disorders	4 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

PCN-107	Introduction to Counseling Theories	4 credits
BHS-240	Group Dynamics and Process	4 credits
BHS-320^Δ	Ethics of Behavioral Health Science	4 credits
BHS-330	Cultural and Social Diversity in Behavioral Health	4 credits
BHS-420	Human Development	4 credits
PSY-470^{Δ/}	Abnormal Psychology	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
BHS-350	Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
BHS-430^Δ	Introduction to Family Dynamics	4 credits
BHS-440	Understanding Trauma	4 credits
BHS-480	Infancy and Early Childhood Development	4 credits
BHS-485	Infancy and Early Childhood Disorders and Assessment	4 credits
BHS-490^Ω	Professional Capstone Project	4 credits

Behavioral Health Science with an Emphasis in Infancy and Early Childhood Studies 56 credits

Bachelor of Science in Behavioral Health Science with an Emphasis in Substance Use Disorders

Grand Canyon University's Bachelor of Science in Behavioral Health Science with an Emphasis in Substance Use Disorders program is designed to prepare students to work as behavioral health technicians or specialists in various settings as members of a clinical team. This program offers students an introduction to behavioral health and substance abuse disorders and addiction. It prepares students to work in the fields of behavioral health, counseling, health services management, human services, government, and law enforcement. Additionally, this curriculum offers a strong foundation for students who want to pursue a master's degree in counseling, mental health, criminal justice, clinical or forensic psychology, or human services.

Degree Requirements

Total General Education	34-40 credits
Total Behavioral Health Science with an Emphasis in Substance Use Disorders	56 credits
Total Electives	24-30 credits

Total Bachelor of Science in Behavioral Health Science with an Emphasis in Substance Use Disorders 120 credits

Behavioral Health Science with an Emphasis in Substance Use Disorders

PCN-100	Foundations of Addiction and Substance Use Disorders	4 credits
PCN-107	Introduction to Counseling Theories	4 credits
BHS-240	Group Dynamics and Process	4 credits
BHS-320^Δ	Ethics of Behavioral Health Science	4 credits
BHS-330	Cultural and Social Diversity in Behavioral Health	4 credits
BHS-420	Human Development	4 credits

PCN-373	Spirituality and Addiction	4 credits
PSY-470^{Δ/}	Abnormal Psychology	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
BHS-350	Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
BHS-430^Δ	Introduction to Family Dynamics	4 credits
PCN-360	Dom.Violence,Child,Elder Abuse-Fam w/Addiction &Substance Use Disorders	4 credits
BHS-440	Understanding Trauma	4 credits
BHS-490^Ω	Professional Capstone Project	4 credits

Behavioral Health Science with an Emphasis in Substance Use Disorders 56 credits

Bachelor of Science in Behavioral Health Science with an Emphasis in Trauma

Grand Canyon University's Bachelor of Science in Behavioral Health Science degree with an Emphasis in Trauma is designed to prepare students to work as behavioral health technicians or specialists in various settings as members of a clinical team. This program offers students a comprehensive study of the biopsychosocial impact of trauma and trauma-informed care. It prepares students to work in behavioral health, counseling, health services management, human services, government, and law enforcement. Additionally, this curriculum offers a strong foundation for students who want to pursue a master's degree in counseling, criminal justice, clinical or forensic psychology, or human services.

Degree Requirements

Total General Education	34-40 credits
Total Behavioral Health Science with an Emphasis in Trauma	56 credits
Total Electives	24-30 credits

Total Bachelor of Science in Behavioral Health Science with an Emphasis in Trauma 120 credits

Behavioral Health Science with an Emphasis in Trauma

PCN-100	Foundations of Addiction and Substance Use Disorders	4 credits
PCN-107	Introduction to Counseling Theories	4 credits
BHS-240	Group Dynamics and Process	4 credits
BHS-320^Δ	Ethics of Behavioral Health Science	4 credits
BHS-330	Cultural and Social Diversity in Behavioral Health	4 credits
BHS-420	Human Development	4 credits
PSY-470^{Δ/}	Abnormal Psychology	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
BHS-350	Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
BHS-430^Δ	Introduction to Family Dynamics	4 credits
BHS-440	Understanding Trauma	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

BHS-470	Introduction to Trauma-Informed Care	4 credits
BHS-475	Overview of Assessment and Treatment of Trauma	4 credits
BHS-490^Ω	Professional Capstone Project	4 credits
Behavioral Health Science with an Emphasis in Trauma		56 credits

Bachelor of Science in Counseling with an Emphasis in Addiction, Chemical Dependency, and Substance Abuse

The Bachelor of Science in Counseling with an Emphasis in Addiction, Chemical Dependency, and Substance Abuse is designed to meet the needs of learners who wish to pursue entry-level careers as addiction counselors/behavioral health technicians. The demand for addiction counselors is expected to grow in both the public and private sectors in the near future. A bachelor's degree is the first step for individuals seeking certification/licensure in many states. Graduates from this degree program are prepared to meet the minimum academic requirements for licensure in Arizona as Licensed Associate Substance Abuse Counselors and Licensed Substance Abuse Technicians. Additionally, program graduates from many other states will be academically prepared to begin the process of seeking certification and/or licensure in their home states. Licensing and/or certification requirements may vary from state to state, and it is the student's responsibility to check the requirements in specific states.

Degree Requirements

Total General Education	34-40 credits
Total Counseling with an Emphasis in Addiction, Chemical Dependency, and Substance Abuse Major	72 credits
Total Electives	8-14 credits
Total Bachelor of Science in Counseling with an Emphasis in Addiction, Chemical Dependency, and Substance Abuse	120 credits

Counseling with an Emphasis in Addiction, Chemical Dependency, and Substance Abuse Major

PCN-100	Foundations of Addiction and Substance Use Disorders	4 credits
PCN-107	Introduction to Counseling Theories	4 credits
PCN-150	Psychopharmacology in Treatment of Addiction and Substance Use Disorders	4 credits
PCN-153	Co Occurring Disorders and HIV/AIDS	4 credits
PCN-158	Multicultural Counseling in a Diverse Society	4 credits
PCN-162	Group Interventions and Community Resources for Addiction and Substance Use Disorders	4 credits
PCN-255	Case Management and Crisis Intervention Skills for Addiction and Substance Use Disorders	4 credits
PCN-265	Relapse Prevention in the Treatment of Addiction and Substance Use Disorders	4 credits

PCN-275	Family Dynamics and Comm Ed - Treatment of Addiction & Substance Use Disorders	4 credits
PCN-360	Dom. Violence, Child, Elder Abuse - Fam w/ Addiction & Substance Use Disorders	4 credits
PCN-365[‡]	Advanced Counseling Theories - Addiction & Substance Use Disorder Counselors	4 credits
PCN-370^Δ	Psychopathology & Adv Treatment - Spec Pop w/ Addiction & Substance Use Disorders	4 credits
PCN-373	Spirituality and Addiction	4 credits
PCN-404^{ΔΔ}	Prof., Legal, & Ethical Issues - Addiction & Substance Use Disorder Counselors	4 credits
PCN-475	Treatment of Addiction & Substance Use Disorders - Children and Adolescents	4 credits
PCN-481	Process Addictions	4 credits
PCN-485	Advanced Case Management for Addiction and Substance Use Disorders	4 credits
PCN-488	Trauma, Addiction, and Substance Use Disorders	4 credits

Counseling with an Emphasis in Addiction, Chemical Dependency, and Substance Abuse Major 72 credits

Select states may require additional practicum hours to be completed to meet the standards for certification/licensure in that state, students should reference their Enrollment Agreement for state specific practicum requirements:

PCN-490^Ω	Practicum	4 credits
PCN-491^Ω	Practicum II	4 credits

Bachelor of Science in Justice Studies

Grand Canyon University's Bachelor of Science in Justice Studies prepares students to enter careers in law enforcement, governmental and private agencies, research, social work, political science, and a variety of other fields. Graduates will be able to describe the components of the justice system from a systems perspective, including function, organization, issues, practices, and interrelationship of law enforcement agencies, the courts, and the corrections system.

Degree Requirements

Total General Education	34-40 credits
Total Justice Studies Major	48 credits
Total Electives	32-38 credits
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Total Bachelor of Science in Justice Studies	120 credits

Justice Studies Major

JUS-104	Introduction to Justice Studies	4 credits
JUS-202[‡]	Professional Responsibility in Justice	4 credits
JUS-212	Criminal Behavior and Victimology	4 credits
JUS-320	The Police Function	4 credits
JUS-325^{ΔΔ}	The Adjudication Function	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

JUS-330	The Correctional Function	4 credits
GOV-360	Civil Law	4 credits
JUS-430[‡]	Criminal Law	4 credits
JUS-441^Δ	Criminal Procedure and Public Policy	4 credits
JUS-445	Justice Problem Analysis	4 credits
JUS-470	Threat Assessment and Behavioral Analysis	4 credits
JUS-481	Community-Based Strategic Planning	4 credits
Justice Studies Major		48 credits

Bachelor of Science in Psychology

Grand Canyon University's Bachelor of Science in Psychology program offers a broad array of courses that increase the understanding of past and present human actions. With this understanding comes the responsibility to improve relationships with others and to help others achieve similar understanding of and insight into their own behaviors. The program helps prepare students for entry-level positions in agencies and organizations that seek to help those in need. It should be understood that the requirements for employment in many positions in the helping professions include advanced education beyond the bachelor's degree.

Degree Requirements

Total General Education	34-40 credits
Total Psychology Major	48 credits
Total Electives	32-38 credits
Total Bachelor of Science in Psychology	120 credits

Psychology Major

PSY-102	General Psychology	4 credits
PSY-255^Δ	Personality Psychology	4 credits
PSY-260	Introduction to Psychological Research and Ethics	4 credits
PSY-352	Health Psychology	4 credits
PSY-355	Child and Adolescent Psychology	4 credits
PSY-358	Adult Development and Aging	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
PSY-402	Cognitive Neuroscience	4 credits
PSY-452^Ω	Experimental Psychology	4 credits
PSY-470^{ΔΔ}	Abnormal Psychology	4 credits
PSY-495	Professional Capstone Project	4 credits
Psychology Major		48 credits

Bachelor of Science in Psychology with an Emphasis in Performance and Sport Psychology

Grand Canyon University's Bachelor of Science in Psychology with an Emphasis in Performance and Sport Psychology degree provides individuals interested in Sport, performing arts, health and fitness, or mental health fields the opportunity to develop their skills and abilities to improve the performance and lives of

those with whom they work. The field of sport and performance psychology is concerned with the psychological factors that influence human performance. It involves improving the lives of others through assessment and intervention strategies that enhance performance and personal growth.

Degree Requirements

Total General Education	34-40 credits
Total Psychology with an Emphasis in Performance and Sport Psychology Major	64 credits
Total Electives	16-22 credits
Total Bachelor of Science in Psychology with an Emphasis in Performance and Sport Psychology	120 credits

Psychology with an Emphasis in Performance and Sport Psychology Major

PSY-102	General Psychology	4 credits
PSY-255^Δ	Personality Psychology	4 credits
PSY-260	Introduction to Psychological Research and Ethics	4 credits
PSY-352	Health Psychology	4 credits
PSY-355	Child and Adolescent Psychology	4 credits
PSY-358	Adult Development and Aging	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
PSY-402	Cognitive Neuroscience	4 credits
PSY-366	Introduction to Sport and Exercise Psychology	4 credits
PSY-368	Social Aspects of Sport/Psychosocial Aspects of Sport	4 credits
PSY-410	Psychology of Coaching	4 credits
PSY-425	Leadership and Team Building	4 credits
PSY-452^Ω	Experimental Psychology	4 credits
PSY-470^{ΔΔ}	Abnormal Psychology	4 credits
PSY-495	Professional Capstone Project	4 credits

Psychology with an Emphasis in Performance and Sport Psychology Major	64 credits
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Bachelor of Science in Psychology with an Emphasis in Forensic Psychology

Grand Canyon University's Bachelor of Science in Psychology with an emphasis in Forensic psychology degree is designed to supplement the study of psychology, criminology, or other justice-related areas with an overview of the intersection of psychology and the criminal justice system. Forensic psychology is where the science of the mind intersects with the law. The emphasis focuses specifically on the psychological experiences of victims and offenders which sheds insight into behavior that leads to criminality.

Degree Requirements

Total General Education	34-40 credits
Total Psychology with an Emphasis in Forensic Psychology Major	64 credits
Total Electives	16-22 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Total Bachelor of Science in Psychology with an Emphasis in Forensic Psychology	120 credits
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Psychology with an Emphasis in Forensic Psychology Major

PSY-102	General Psychology	4 credits
PSY-255 ^Δ	Personality Psychology	4 credits
PSY-260	Introduction to Psychological Research and Ethics	4 credits
PSY-352	Health Psychology	4 credits
PSY-355	Child and Adolescent Psychology	4 credits
PSY-358	Adult Development and Aging	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
PSY-402	Cognitive Neuroscience	4 credits
JUS-212	Criminal Behavior and Victimology	4 credits
PSY-310	Introduction to Forensic Psychology	4 credits
JUS-430	Criminal Law	4 credits
BHS-440	Understanding Trauma	4 credits
PSY-452 ^Ω	Experimental Psychology	4 credits
PSY-470 ^Δ	Abnormal Psychology	4 credits
PSY-495	Professional Capstone Project	4 credits

Psychology with an Emphasis in Forensic Psychology Major	64 credits
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Bachelor of Science in Sociology

The Bachelor of Science in Sociology program encourages students to think deeply and seriously, using both the Christian and scientific perspectives, about the consequences of social structures upon human social behavior in its many diverse contexts.

Degree Requirements

Total General Education	34-40 credits
Total Sociology Major	48 credits
Total Electives	32-38 credits
Total Bachelor of Science in Sociology	120 credits

Sociology Major

SOC-102	Principles of Sociology	4 credits
SOC-220	Social Problems	4 credits
SOC-320 ^Δ	Marriage and Family	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
SOC-372	Introduction to Social Work	4 credits
SOC-330	Globalization	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
SOC-400 ^Ω	Social Research and Statistics	4 credits
SOC-412	Sociology of Religion	4 credits
SOC-417 ^Δ	Sociological Theory	4 credits
SOC-436 ^Δ	Stratification and Inequality in a Diverse Society	4 credits

SOC-481 ^Ω	Sociology Capstone	4 credits
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Sociology Major	48 credits
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Bachelor of Science in Sociology with an Emphasis in Social Work

The Bachelor of Science in Sociology with an Emphasis in Social Work program helps prepare students for exciting work in the field of social work and human services in settings such as nonprofit and government agencies. Students learn how to integrate sociological theories of socialization, culture, and institutions with the communication, intervention, and case management skills of social services. This program prepares students for the application of human behavior intervention and case management strategies and skills. Employees in the social work and social service fields assist individuals, children, families, and communities through child welfare, health care, disability, mental health, aging services, and community development services. This program does not lead to licensure.

Degree Requirements

Total General Education	34-40 credits
Total Sociology with an Emphasis in Social Work Major	48 credits
Total Electives	32-38 credits
Total Bachelor of Science in Sociology	120 credits

Sociology Major

SOC-102	Principles of Sociology	4 credits
SOC-220	Social Problems	4 credits
SOC-320 ^Δ	Marriage and Family	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
SOC-372	Introduction to Social Work	4 credits
SOC-400 ^Ω	Social Research and Statistics	4 credits
SOC-436 ^Δ	Stratification and Inequality in a Diverse Society	4 credits
SOC-412	Sociology of Religion	4 credits
SOC-386 ^Δ	Human Behavior and the Social Environment	4 credits
SOC-445	Case Management	4 credits
SOC-449	Direct Practice	4 credits
SOC-480 ^Ω	Sociology and Social Work Capstone	4 credits

Sociology with an Emphasis in Social Work Major	48 credits
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Master of Education in School Counseling (IL)

(Initial Program—Leads to Licensure)

Grand Canyon University's Master of Education in School Counseling (IL) program is designed for any individual with a bachelor's degree interested in seeking certification as a school guidance counselor. The format and courses of this regionally accredited and Arizona-approved program are tailored to meet the needs of the adult learner and to maximize strengths that the candidate already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in child and adolescent development, counseling theory, group counseling, career and college counseling, trauma and

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

psychopathology. Candidates gain knowledge and skills necessary to be effective counseling practitioners in PK-12 settings, working with students, parents, and school personnel to address the academic, social, and emotional needs of students. Graduates of this program are prepared to apply brief counseling, child and adolescent development theories, and research to school practice. This program is informed by the American School Counseling Association (ASCA) National Model. Candidates must have access to pre-approved PK-12 schools to complete program requirements. This program includes 25 field experience hours, 100 practicum hours, and 600 internship hours, for a total of 725 hours.

Degree Requirements

SCN-501 ^Ω	Introduction to Graduate Studies and Foundations of School Counseling	3 credits
CNL-505 ^Ω	Professional Counseling, Ethical, and Legal Considerations	3 credits
CNL-500 ^Ω	Theories and Models of Counseling	3 credits
CNL-515 ^Ω	Counseling Skills	3 credits
CNL-509 ^Ω	Counseling the Culturally Diverse	3 credits
SCN-505 ^Ω	Organization and Administration of a School Counseling Program	3 credits
SCN-600 ^Ω	School Counseling Practicum	3 credits
CNL-520 ^Ω	Group Counseling	3 credits
CNL-518 ^Ω	Lifespan and Development	3 credits
SCN-510 ^Ω	Counseling for College and Career	3 credits
SCN-605 ^Ω	School Counseling Internship I	3 credits
CNL-540 ^Ω	Research Methods and Program Evaluation	3 credits
SCN-610 ^Ω	Contemporary Issues in School Counseling	3 credits
PCN-670 ^Ω	Development through Childhood and Adolescence	3 credits
PCN-673 ^Ω	Developmental Disabilities	3 credits
SCN-615 ^Ω	School Counseling Internship II	3 credits
PCN-672 ^Ω	Childhood and Adolescent Trauma	3 credits
PCN-671 ^Ω	Psychopathology and Treatment of Children and Adolescence	3 credits
SCN-620 ^Ω	Educational Tests and Measurements	3 credits
SCN-625 ^Ω	School Counseling Internship III	3 credits
Master of Education in School Counseling		60 credits
Total Practicum/Field Experience Hours		725 hours

Master of Public Administration with an Emphasis in Government and Policy

Grand Canyon University's Master of Public Administration with an Emphasis in Government and Policy program prepares students for careers in the public sector. The program is targeted at individuals working or desirous of finding employment in all levels of government, health care administration, and other quasi-and/or non-governmental organizations. The coursework gives students the opportunity to apply administrative skills in the areas of leadership, human capital development, policy, and governance within a public sector environment. Students will be challenged to identify and provide solutions for the unique issues

facing public sector organizations today. This emphasis pays special attention to the government and policy fields.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
ADM-624	Public Governance	4 credits
ADM-530	Public and Nonprofit Administration	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
ADM-560	Influence, Power, and Politics in Public Administration	4 credits
ADM-620	Leading Public Organizations	4 credits
ADM-626	Public Budgeting and Financial Management	4 credits
ADM-634	Policy Studies	4 credits
ADM-614	Economics for Public Administrators	4 credits
ADM-640	Program Evaluation	4 credits
Master of Public Administration with an Emphasis in Government and Policy		38 credits

Master of Public Administration with an Emphasis in Health Care Management

Grand Canyon University's Master of Public Administration prepares students for careers in the public sector. The program is targeted at individuals working or desirous of finding employment in all levels of government, health care administration, and other quasi- and/or non-governmental organizations. The coursework gives students the opportunity to apply administrative skills in the areas of leadership, human capital development, policy, and governance within a public sector environment. Students will be challenged to identify and provide solutions for the unique issues facing public sector organizations today. This program offers two emphasis areas from which students can choose: health care management and government and policy.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
ADM-624	Public Governance	4 credits
ADM-530	Public and Nonprofit Administration	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
ADM-560	Influence, Power, and Politics in Public Administration	4 credits
ADM-620	Leading Public Organizations	4 credits
ADM-626	Public Budgeting and Financial Management	4 credits
HLT-520	Legal and Ethical Principles in Health Care	4 credits
HCA-530	Health Care Policies and Economics	4 credits
ADM-645	Strategic Planning and Program Evaluation in Healthcare	4 credits
Master of Public Administration with an Emphasis in Health Care Management		38 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

Master of Public Administration with an Emphasis in Nonprofit Management

Grand Canyon University's Master of Public Administration with an Emphasis in Nonprofit Management prepares students for careers in the public sector. The program is targeted at individuals working or desirous of finding employment in all levels of government and other not-for-profit organizations. The coursework gives students the opportunity to apply administrative skills in the areas of leadership, human capital development, policy, and governance within a public sector environment. Students will be challenged to identify and provide solutions for the unique issues facing public and nonprofit sector organizations today.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
ADM-624	Public Governance	4 credits
ADM-530	Public and Nonprofit Administration	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
ADM-560	Influence, Power, and Politics in Public Administration	4 credits
ADM-620	Leading Public Organizations	4 credits
ADM-626	Public Budgeting and Financial Management	4 credits
ADM-630	Introduction to Nonprofit and NGO Sector	4 credits
ADM-638	Fundamentals of Community Development	4 credits
ADM-641	Funding and Program Evaluation of Nonprofit Organizations	4 credits
Master of Public Administration with an Emphasis in Nonprofit Management		38 credits

Master of Science in Addiction Counseling

The Master of Science in Addiction Counseling degree is designed to meet the needs of learners who wish to pursue careers as addiction counseling professionals. This degree prepares students to treat substance abuse/dependency disorders.

The demand for licensed addiction counselors is expected to grow in both the public and private sectors in the foreseeable future. A Master's degree is a required step for individuals seeking the highest level of licensing and/or certification in many states. Graduates from the GCU program of study are prepared to meet the academic requirements for licensure in Arizona as a:

- Licensed Associate Substance Abuse Counselor (LASAC)
- Licensed Independent Substance Abuse Counselor (LISAC).

Additionally, program graduates from most other states will be academically prepared to begin the process of seeking certification and/or licensure in their home state. Licensing and/or certification requirements may vary from state-to-state. It is the students' responsibility to check the licensing/certification requirements in their respective states.

Degree Requirements

UNV-502^Ω	Introduction to Graduate Studies in the Health Sciences	2 credits
PCN-505	Professional Counseling Orientation and Ethics	3 credits

PCN-500	Counseling Theories	3 credits
PCN-501	Introduction to Addictions and Substance Use Disorders	3 credits
PCN-520	Group Counseling Theory and Practice	3 credits
PCN-509	Social and Cultural Diversity Issues in Counseling	3 credits
PCN-527	Psychopharmacology and Addictions	3 credits
PCN-529	Co-Occurring Disorders	3 credits
PCN-531	Family Issues and Addictive Disorders	3 credits
PCN-610	Diagnostics, Assessment, and Treatment	3 credits
PCN-535	Counseling Chemical Dependency Adolescents	3 credits
PCN-622^Ω	Pre-Practicum	2 credits
PCN-662A^Ω	Practicum/Internship I	2 credits

Master of Science in Addiction Counseling 36 credits

Students who are Ohio residents must complete the Ohio-specific requirements to meet the standards for certification/licensure in that state, students must take the following courses:

PCN-518	Human Growth and Development	3 credits
PCN-540	Research Methods	3 credits
PCN-605	Psychopathology and Counseling	3 credits
PCN-622B	Pre-Practicum II	2 credits

Master of Science in Christian Counseling of Substance Use and Addictive Disorders

The Master of Science in Christian Counseling of Substance Use and Addictive Disorders degree is for learners who wish to pursue careers as addiction counseling professionals, treating individuals with substance abuse/dependency disorders and also able to integrate Christian principles into their counseling practice and to apply that knowledge in a counseling setting. With a master's in addiction counseling, graduates may be prepared to own and operate their own counseling clinic or work in a variety of settings including private practice, substance abuse clinics, group practices, and hospital settings. The demand for licensed addiction counselors is expected to grow in both the public and private sectors in the foreseeable future. A master's degree is a required step for individuals seeking the highest level of licensing and/or certification in many states.

The coursework that prepares students for licensure focuses on a variety of topics, including: theories of addiction, drug classification, assessment, and treatment; professional counseling orientation and ethics; counseling theories; group counseling theory and practice; social and cultural diversity issues in counseling; psychopharmacology theories of drug abuse, addiction, and treatment; psychiatric disorders in combination with an alcohol and/or drug abuse disorder; family issues and addictive disorders; diagnostics, assessment and treatment; and counseling chemically dependent adolescents.

Dispersed throughout the curriculum, the student will also take a number of courses that integrate a Christ-centered approach to emotional health, a foundational study of the integration of counseling theory and Christian thought, and a study of spiritual

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

formation, thereby providing supplemental study of spiritual growth for the counselor in life and practice.

A pre-practicum or supervised field work experience concludes the program, under the supervision of a faculty member. Following the pre-practicum, students take part in a supervised practicum/internship experience to develop their counseling skills and to perform all the activities that a regularly employed professional counselor would be expected to perform in a supervised setting.

Graduates from the Grand Canyon University Master of Science in Addiction Counseling program are prepared to meet the academic requirements for licensure in Arizona as a Licensed Associate Substance Abuse Counselor (LASAC) OR a Licensed Independent Substance Abuse Counselor (LISAC). Additionally, program graduates from most other states will be academically prepared to begin the process of seeking certification and/or licensure in their home state. Licensing and/or certification requirements may vary from state-to-state. It is the students' responsibility to check the licensing/certification requirements in their respective states.

Degree Requirements

UNV-502^Ω	Introduction to Graduate Studies in the Health Sciences	2 credits
PCN-501	Introduction to Addictions and Substance Use Disorders	3 credits
PCN-505	Professional Counseling Orientation and Ethics	3 credits
PCN-500	Counseling Theories	3 credits
PCN-520	Group Counseling Theory and Practice	3 credits
PCN-509	Social and Cultural Diversity Issues in Counseling	3 credits
CCN-601	Biblical Foundations for Counselors: The Story of God	3 credits
CCN-650	Spiritual Formation: Becoming a Healthy Practitioner	3 credits
PCN-527	Psychopharmacology and Addictions	3 credits
PCN-529	Co-occurring Disorders	3 credits
CCN-655	Biblical Concepts-Healthy Relationships: Forgiveness & Healthy Spirituality	3 credits
PCN-531	Family Issues and Addictive Disorders	3 credits
PCN-610	Diagnostics, Assessment, and Treatment	3 credits
CCN-675	Integration of Scripture With Counseling Theory	3 credits
PCN-535	Counseling Chemical Dependency Adolescents	3 credits
PCN-622^Ω	Pre-Practicum	2 credits
PCN-662A^Ω	Practicum/Internship I	2 credits
Master of Science in Christian Counseling of Substance Use and Addictive Disorders		48 credits

Master of Science in Clinical Mental Health Counseling

Grand Canyon University's Master of Science in Clinical Mental Health Counseling program is designed for students interested in becoming professional counselors. The program's courses were

chosen to meet the academic requirements established by the National Board for Certified Counselors for the National Certified Counselor credential (NCC), the Certified Clinical Mental Health Counselor credential (CCMHC), and by the Arizona Board of Behavioral Health Examiners. A master's degree in counseling is a required step in all 50 states for individuals seeking to become a licensed counselor. This program of study is designed to meet the academic requirements for licensure in Arizona as a: • Licensed Associate Counselor (LAC) • Licensed Professional Counselor (LPC) Licensing and/or certification requirements may vary from state to state. It is the students' responsibility to check the licensing/certification requirements in their respective state.

Degree Requirements

UNV-508^Ω	Introduction to Graduate Studies in Counseling	2 credits
CNL-505^Ω	Professional Counseling, Ethical, and Legal Considerations	3 credits
CNL-500^Ω	Theories and Models of Counseling	3 credits
CNL-501^Ω	Substance Use Disorders and Addictions	3 credits
CNL-515^Ω	Counseling Skills	3 credits
CNL-509^Ω	Counseling the Culturally Diverse	3 credits
CNL-520^Ω	Group Counseling	3 credits
CNL-527^Ω	Principles of Psychopharmacology	3 credits
CNL-530^Ω	Human Sexuality and Issues of Aging	3 credits
CNL-518^Ω	Lifespan and Development	3 credits
CNL-521^Ω	Counseling Couples and Families	3 credits
CNL-545^Ω	Abuse, Crisis, and Trauma Counseling	3 credits
CNL-523^Ω	Assessment, Tests, and Measurements	3 credits
CNL-525^Ω	Career Counseling	3 credits
CNL-540^Ω	Research Methods and Program Evaluation	3 credits
CNL-610^Ω	Clinical Assessment, Diagnosis, and Treatment	3 credits
CNL-605^Ω	Psychopathology	3 credits
CNL-644^Ω	Assessment of Mental and Emotional Health Status	2 credits
CNL-624^Ω	Counseling Practicum	2 credits
CNL-664A^Ω	Counseling Internship I	4 credits
CNL-664B^Ω	Counseling Internship II	4 credits
Master of Science in Clinical Mental Health Counseling		62 credits

Students who are Florida, Indiana, Nevada, or Utah residents must complete the Florida, Indiana, Nevada, or Utah specific requirements to meet the standards for certification/licensure in that state. Students must additionally take the following course

CNL-664C^Ω	Counseling Internship III	1 credit
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Master of Science in Clinical Mental Health Counseling with an Emphasis in Childhood and Adolescence Disorders

Grand Canyon University's Master of Science in Clinical Mental Health Counseling with an Emphasis in Childhood and Adolescence Disorders program is designed for students interested in becoming professional counselors. The program provides students with the knowledge and skills necessary to identify, assess, and address childhood- and adolescence-related disorders, developmental issues, child-parent-related issues, school and family life, and disorders specified in the DSM. The program's courses were selected to meet the academic requirements established by the National Board for Certified Counselors for the National Certified Counselor credential (NCC), the Certified Clinical Mental Health Counselor credential (CCMHC), and by Arizona Board of Behavioral Health Examiners. Students are provided with comprehensive training to achieve national certification and licensure in Arizona as a licensed counselor. This program of study is designed to meet the academic requirements for licensure in Arizona as a:

Licensed Associate Counselor (LAC) •

Licensed Professional Counselor (LPC) Licensing and/or certification requirements may vary from state to state. It is the students' responsibility to check the licensing/certification requirements in their respective state.

Degree Requirements

UNV-508 ^Ω	Introduction to Graduate Studies in Counseling	2 credits
CNL-505 ^Ω	Professional Counseling, Ethical, and Legal Considerations	3 credits
CNL-500 ^Ω	Theories and Models of Counseling	3 credits
CNL-501 ^Ω	Substance Use Disorders and Addictions	3 credits
CNL-515 ^Ω	Counseling Skills	3 credits
CNL-509 ^Ω	Counseling the Culturally Diverse	3 credits
CNL-520 ^Ω	Group Counseling	3 credits
CNL-527 ^Ω	Principles of Psychopharmacology	3 credits
CNL-530 ^Ω	Human Sexuality and Issues of Aging	3 credits
CNL-518 ^Ω	Lifespan and Development	3 credits
CNL-521 ^Ω	Counseling Couples and Families	3 credits
CNL-545 ^Ω	Abuse, Crisis, and Trauma Counseling	3 credits
CNL-523 ^Ω	Assessment, Tests, and Measurements	3 credits
CNL-525 ^Ω	Career Counseling	3 credits
CNL-540 ^Ω	Research Methods and Program Evaluation	3 credits
CNL-610 ^Ω	Clinical Assessment, Diagnosis, and Treatment	3 credits
CNL-605 ^Ω	Psychopathology	3 credits
CNL-644 ^Ω	Assessment of Mental and Emotional Health Status	2 credits
PCN-670	Development through Childhood and Adolescence	3 credits
PCN-673	Developmental Disabilities	3 credits
PCN-672	Childhood and Adolescent Trauma	3 credits

PCN-671	Psychopathology and Treatment of Children and Adolescence	3 credits
CNL-624 ^Ω	Counseling Practicum	2 credits
CNL-664A ^Ω	Counseling Internship I	4 credits
CNL-664B ^Ω	Counseling Internship II	4 credits

Master of Science in Clinical Mental Health Counseling with an Emphasis in Childhood and Adolescence Disorders 74 credits

Master of Science in Clinical Mental Health Counseling with an Emphasis in Christian Counseling

Grand Canyon University's Master of Science in Clinical Mental Health Counseling with an Emphasis in Christian Counseling program is designed for students interested in becoming professional counselors who are able to integrate Christian principles into their counseling practice and to apply that knowledge in a counseling setting. The program provides students with the knowledge and skills necessary for counseling clients experiencing a variety of psychological, social, behavioral, and emotional issues. This program is designed to prepare students for careers as clinical mental health counselors. Graduates may also be qualified to provide counseling services to clients with substance use issues and marital and family issues. Students will take a number of courses that integrate a Christ-centered approach to emotional health, a foundational study of the integration of counseling theory and Christian thought, and a study of spiritual formation, thereby providing a supplemental study of spiritual growth for the counselor in life and practice. The program's courses were selected to meet the academic requirements established by the National Board for Certified Counselors for the National Certified Counselor credential (NCC), the Certified Clinical Mental Health Counselor credential (CCMHC), and by Arizona Board of Behavioral Health Examiners. A master's degree in counseling is a required step in all 50 states, for individuals seeking to become a licensed counselor. This program of study is designed to meet the academic requirements for licensure in Arizona as a:

Licensed Associate Counselor (LAC) •

Licensed Professional Counselor (LPC) Licensing and/or certification requirements may vary from state to state. It is the students' responsibility to check the licensing/certification requirements in their respective states.

Degree Requirements

UNV-508 ^Ω	Introduction to Graduate Studies in Counseling	2 credits
CNL-505 ^Ω	Professional Counseling, Ethical, and Legal Considerations	3 credits
CNL-500 ^Ω	Theories and Models of Counseling	3 credits
CNL-501 ^Ω	Substance Use Disorders and Addictions	3 credits
CNL-515 ^Ω	Counseling Skills	3 credits
CNL-509 ^Ω	Counseling the Culturally Diverse	3 credits
CNL-520 ^Ω	Group Counseling	3 credits
CNL-527 ^Ω	Principles of Psychopharmacology	3 credits
CNL-530 ^Ω	Human Sexuality and Issues of Aging	3 credits
CNL-518 ^Ω	Lifespan and Development	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

CNL-521 ^Ω	Counseling Couples and Families	3 credits
CNL-545 ^Ω	Abuse, Crisis, and Trauma Counseling	3 credits
CNL-523 ^Ω	Assessment, Tests, and Measurements	3 credits
CNL-525 ^Ω	Career Counseling	3 credits
CNL-540 ^Ω	Research Methods and Program Evaluation	3 credits
CNL-610 ^Ω	Clinical Assessment, Diagnosis, and Treatment	3 credits
CNL-605 ^Ω	Psychopathology	3 credits
CNL-644 ^Ω	Assessment of Mental and Emotional Health Status	2 credits
CCN-601	Biblical Foundations for Counselors: The Story of God	3 credits
CCN-650	Spiritual Formation: Becoming a Healthy Practitioner	3 credits
CCN-655	Biblical Concepts-Healthy Relationships: Forgiveness & Healthy Spirituality	3 credits
CCN-675	Integration of Scripture with Counseling Theory	3 credits
CNL-624 ^Ω	Counseling Practicum	2 credits
CNL-664A ^Ω	Counseling Internship I	4 credits
CNL-664B ^Ω	Counseling Internship II	4 credits
Master of Science in Clinical Mental Health Counseling with an Emphasis in Christian Counseling		74 credits

Master of Science in Clinical Mental Health Counseling with an Emphasis in Marriage and Family Therapy

Grand Canyon University's Master of Science in Clinical Mental Health Counseling with an Emphasis in Marriage and Family Therapy program is designed for students interested in becoming professional counselors. The program provides students with the knowledge and skills necessary to identify, assess, and address marriage- and family-related issues, including, but not limited to, communication issues, parent-child relationship, different family dynamics, and couple's issues. The program's courses were selected to meet the academic requirements established by the National Board for Certified Counselors for the National Certified Counselor credential (NCC), the Certified Clinical Mental Health Counselor credential (CCMHC), and by Arizona Board of Behavioral Health Examiners. Students are provided with comprehensive training to achieve national certification and licensure in Arizona as a licensed counselor. This program of study is designed to meet the academic requirements for licensure in Arizona as a:

- Licensed Associate Counselor (LAC)
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Licensed Professional Counselor (LPC) This degree does not lead to marriage and family licensure. Students are encouraged to review their marriage and family board licensure to see licensure requirements.

Degree Requirements

UNV-508 ^Ω	Introduction to Graduate Studies in Counseling	2 credits
CNL-505 ^Ω	Professional Counseling, Ethical, and Legal Considerations	3 credits
CNL-500 ^Ω	Theories and Models of Counseling	3 credits

CNL-501 ^Ω	Substance Use Disorders and Addictions	3 credits
CNL-515 ^Ω	Counseling Skills	3 credits
CNL-509 ^Ω	Counseling the Culturally Diverse	3 credits
CNL-520 ^Ω	Group Counseling	3 credits
CNL-527 ^Ω	Principles of Psychopharmacology	3 credits
CNL-530 ^Ω	Human Sexuality and Issues of Aging	3 credits
CNL-518 ^Ω	Lifespan and Development	3 credits
CNL-521 ^Ω	Counseling Couples and Families	3 credits
CNL-545 ^Ω	Abuse, Crisis, and Trauma Counseling	3 credits
CNL-523 ^Ω	Assessment, Tests, and Measurements	3 credits
CNL-525 ^Ω	Career Counseling	3 credits
CNL-540 ^Ω	Research Methods and Program Evaluation	3 credits
CNL-610 ^Ω	Clinical Assessment, Diagnosis, and Treatment	3 credits
CNL-605 ^Ω	Psychopathology	3 credits
CNL-644 ^Ω	Assessment of Mental and Emotional Health Status	2 credits
MFT-526	Advanced Family Systems Theory	3 credits
MFT-621	Couples and Family Dynamics: Systemic Perspectives	3 credits
MFT-620	Diversity in Family Systems	3 credits
MFT-532	Family Systems and Addictive Disorders	3 credits
CNL-624 ^Ω	Counseling Practicum	2 credits
CNL-664A ^Ω	Counseling Internship I	4 credits
CNL-664B ^Ω	Counseling Internship II	4 credits

Master of Science in Clinical Mental Health Counseling with an Emphasis in Marriage and Family Therapy	74 credits
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Master of Science in Clinical Mental Health Counseling with an Emphasis in Trauma

Grand Canyon University's Master of Science in Clinical Mental Health Counseling with an Emphasis in Trauma program is designed for students interested in becoming professional counselors. The program prepares students to understand, assess, and treat developmental, childhood, and adulthood trauma-related disorders. This program offers students an exhaustive study of human behavior and trauma-informed care. The program's courses were selected to meet the academic requirements established by the National Board for Certified Counselors for the National Certified Counselor credential (NCC), the Certified Clinical Mental Health Counselor credential (CCMHC), and by Arizona Board of Behavioral Health Examiners. Students are provided with comprehensive training to achieve national certification and licensure in Arizona as a Licensed Professional Counselor. This program of study is designed to meet the academic requirements for licensure in Arizona as a:

- Licensed Associate Counselor (LAC)
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Licensed Professional Counselor (LPC) Licensing and/or certification requirements may vary from state to state. It is the students' responsibility to check the licensing/certification requirements in their respective state.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Degree Requirements

UNV-508 ^Ω	Introduction to Graduate Studies in Counseling	2 credits
CNL-505 ^Ω	Professional Counseling, Ethical, and Legal Considerations	3 credits
CNL-500 ^Ω	Theories and Models of Counseling	3 credits
CNL-501 ^Ω	Substance Use Disorders and Addictions	3 credits
CNL-515 ^Ω	Counseling Skills	3 credits
CNL-509 ^Ω	Counseling the Culturally Diverse	3 credits
CNL-520 ^Ω	Group Counseling	3 credits
CNL-527 ^Ω	Principles of Psychopharmacology	3 credits
CNL-530 ^Ω	Human Sexuality and Issues of Aging	3 credits
CNL-518 ^Ω	Lifespan and Development	3 credits
CNL-521 ^Ω	Counseling Couples and Families	3 credits
CNL-545 ^Ω	Abuse, Crisis, and Trauma Counseling	3 credits
CNL-523 ^Ω	Assessment, Tests, and Measurements	3 credits
CNL-525 ^Ω	Career Counseling	3 credits
CNL-540 ^Ω	Research Methods and Program Evaluation	3 credits
CNL-610 ^Ω	Clinical Assessment, Diagnosis, and Treatment	3 credits
CNL-605 ^Ω	Psychopathology	3 credits
CNL-644 ^Ω	Assessment of Mental and Emotional Health Status	2 credits
PCN-680	Theoretical Foundations of Trauma Assessment, Diagnosis, and Treatment	3 credits
PCN-682	Relational Trauma: History and Treatment Issues	3 credits
PCN-683	Working with Developmental Trauma	3 credits
PCN-681	Community and Global Disaster Response	3 credits
CNL-624 ^Ω	Counseling Practicum	2 credits
CNL-664A ^Ω	Counseling Internship I	4 credits
CNL-664B ^Ω	Counseling Internship II	4 credits
Master of Science in Clinical Mental Health Counseling with an Emphasis in Trauma		74 credits

Master of Science in Criminal Justice with an Emphasis in Law Enforcement

Grand Canyon University's Master of Science in Criminal Justice with an Emphasis in Law Enforcement is designed for students seeking to expand their understanding of the law, social order, and justice. This program is particularly suited to law enforcement personnel who wish to advance in their field, as well as corrections, probation, and parole officers; law clerks; and other decision makers who address questions of public policy, social research, and administration of justice in the public sphere. The application of strategic planning and funding initiatives for justice organizations is also emphasized.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
JUS-506	Criminal Behavior Analysis	4 credits
JUS-620	Exploration of Law and Public Policy	4 credits
JUS-522	Ethics and Decision Making	4 credits
JUS-510	Research Methods	4 credits
JUS-515	Organizational Behavior and Leadership	4 credits
JUS-632	Crime Prevention and Public Relations	4 credits
JUS-636	Crime Analysis and Case Management	4 credits
JUS-640	Advanced Crime Analysis	4 credits
JUS-650	Strategic Analysis and Organizational Planning	4 credits
Master of Science in Criminal Justice with an Emphasis in Law Enforcement		38 credits

Master of Science in Criminal Justice with an Emphasis in Legal Studies

Grand Canyon University's Master of Science in Criminal Justice with an Emphasis in Legal Studies is designed for students seeking to expand their understanding of the law, social order, and justice. This program is particularly suited to law enforcement personnel and other decision makers who address questions of public policy, social research, and administration of justice in the public sphere. This program also prepares students to work with legal concepts where in-depth analysis of law is required.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
JUS-506	Criminal Behavior Analysis	4 credits
JUS-620	Exploration of Law and Public Policy	4 credits
JUS-522	Ethics and Decision Making	4 credits
JUS-510	Research Methods	4 credits
JUS-515	Organizational Behavior and Leadership	4 credits
JUS-631	Exploration of Constitutional Criminal Law	4 credits
JUS-635	Legal Research	4 credits
JUS-641	Legal Communication	4 credits
JUS-655	Strategies for Funding and Effective Consulting	4 credits
Master of Science in Criminal Justice with an Emphasis in Legal Studies		38 credits

Master of Science in Mental Health and Wellness

Grand Canyon University's Master of Science in Mental Health and Wellness degree exposes students to the influence of biological factors, life experience, and family history on mental health and wellness. This degree also allows students to explore areas of human nature, including cognitive, biopsychosocial, and spiritual factors, and social motivations. Students explore concepts of leadership, culture, advocacy, ethics, human

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

development, and psychopathology. Students also become familiar with research and best practices of mental health and wellness as it relates to human resiliency, recovery, and daily functioning. This degree does not lead to licensure.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
MHW-501	Introduction to Mental Health and Wellness	4 credits
MHW-510	Ethics and Cultural Diversity in Mental Health and Wellness	4 credits
PSY-650	Human Development	4 credits
MHW-520	Group Dynamics	4 credits
PSY-664	Community Health	4 credits
MHW-630	Documentation, Research, and Information Literacy in Mental Health and Wellness	4 credits
MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
MHW-649^Ω	Mental Health and Wellness Capstone	4 credits
Master of Science in Mental Health and Wellness		34 credits

Master of Science in Mental Health and Wellness with an Emphasis in Christian Ministry

Grand Canyon University's Master of Science in Mental Health and Wellness degree with an Emphasis in Christian Ministry offers a foundation in biblical knowledge and theological wisdom to serve individuals who are seeking support and encouragement within a Christian framework. Students develop a deep understanding of the gospel to discuss relevant issues from a Christian perspective. This includes an exploration of spiritual health, growth, and character development for the caregiver in life and practice. They explore human nature, including cognitive, behavioral, interpersonal, mental, social, and spiritual motivations. Students also become familiar with research and best practices of mental health and wellness as it relates to human resiliency, recovery, and daily functioning. This degree does not lead to licensure.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
MHW-501	Introduction to Mental Health and Wellness	4 credits
MHW-510	Ethics and Cultural Diversity in Mental Health and Wellness	4 credits
MHW-511	Mental Health, the Biblical Narrative, and Christian Theology	4 credits
MHW-521	Integrating Psychology and Christian Theology	4 credits
MHW-631	Spiritual Formation, Identity, and Wellness	4 credits
MHW-641	Mental Health Issues in Ministry	4 credits
MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
MHW-649^Ω	Mental Health and Wellness Capstone	4 credits
Master of Science in Mental Health and Wellness with an Emphasis in Christian Ministry		34 credits

Master of Science in Mental Health and Wellness with an Emphasis in Community Mental Health Administration

Grand Canyon University's Master of Science in Mental Health and Wellness degree with an Emphasis in Community Mental Health Administration is designed for students interested in learning program planning and development, including policies and procedures, working with budgets, and learning leadership skills to apply in an administration role. Students who obtain this degree may be prepared to work in churches, hospitals, community-based organizations, and settings that provide social services. This degree also allows students to integrate mental health and wellness principles in a leadership role. Students explore concepts of effective communication, motivation, supervisory skills, culture, advocacy, ethics, and personal and professional development. Students also become familiar with research and best practices of mental health and wellness in an administration role. This degree does not lead to licensure.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
MHW-501	Introduction to Mental Health and Wellness	4 credits
MHW-510	Ethics and Cultural Diversity in Mental Health and Wellness	4 credits
ADM-624	Public Governance	4 credits
ADM-626	Public Budgeting and Financial Management	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
ADM-614	Economics for Public Administrators	4 credits
MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
MHW-649^Ω	Mental Health and Wellness Capstone	4 credits

Master of Science in Mental Health and Wellness with an Emphasis in Community Mental Health Administration 34 credits

Master of Science in Mental Health and Wellness with an Emphasis in Family Dynamics

Grand Canyon University's Master of Science in Mental Health and Wellness degree with an Emphasis in Family Dynamics is designed for those students who would like to work with families and various community settings, promoting mental health and wellness. Students who obtain this degree may be prepared to work in schools, churches, hospitals, community-based organizations, and settings that provide comprehensive children and family services. This degree also allows students to explore areas of human nature, including cognitive, behavioral, interpersonal, mental, spiritual, resiliency, family dynamics, and social motivations. Students explore concepts of culture, advocacy, ethics, human development, and psychopathology. Students also become familiar with research and best practices of mental health and wellness as it relates to family dynamics and systems. This degree does not lead to licensure.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

MHW-501	Introduction to Mental Health and Wellness	4 credits
MHW-510	Ethics and Cultural Diversity in Mental Health and Wellness	4 credits
MHW-512	Introduction to Family Dynamics & Systems	4 credits
MHW-522	Family Development	4 credits
MHW-632	Parenting	4 credits
MHW-642	Families in Contemporary Society	4 credits
MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
MHW-649 ^Ω	Mental Health and Wellness Capstone	4 credits

Master of Science in Mental Health and Wellness with an Emphasis in Family Dynamics 34 credits

Master of Science in Mental Health and Wellness with an Emphasis in Grief and Bereavement

Grand Canyon University's Master of Science in Mental Health and Wellness degree with an Emphasis in Grief and Bereavement is designed to allow students to gain knowledge and understanding of dying, death, loss, and bereavement within the context of mental health and wellness. Students who obtain this degree may be prepared to work in hospice, churches, hospitals, community-based organizations, and settings that provide comprehensive grief and bereavement services. This degree also allows students to explore areas of human nature, including cognitive, behavioral, interpersonal, mental, spiritual, resiliency, family, and social dynamics. Students explore concepts of culture, advocacy, ethics, human development, and psychopathology as they relate to loss and bereavement. Students also become familiar with research and best practices of mental health and wellness when working with the bereaved. This degree does not lead to licensure.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
MHW-501	Introduction to Mental Health and Wellness	4 credits
MHW-510	Ethics and Cultural Diversity in Mental Health and Wellness	4 credits
MHW-513	Grief and Bereavement Theory and Practice	4 credits
MHW-523	Journey of the Bereaved	4 credits
PSY-631	Death and Dying	4 credits
MHW-643	Death & Dying: The Influences of Cultural, Spiritual & Sociological Factors	4 credits
MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
MHW-649 ^Ω	Mental Health and Wellness Capstone	4 credits

Master of Science in Mental Health and Wellness with an Emphasis in Grief and Bereavement 34 credits

Master of Science in Mental Health and Wellness with an Emphasis in Integrated Health

Grand Canyon University's Master of Science in Mental Health and Wellness with an Emphasis in Integrated Health program introduces students to theory, knowledge, and appropriate

strategies utilized within the field of integrated healthcare practices. In this program, students discuss integrated health program assessment, development, and implementation and are exposed to the therapeutic relationship between patients and practitioners. This program prepares students to assist, promote, and advocate for patient accessibility within integrated health services. Students explore areas of human nature, including cognitive, behavioral, interpersonal, mental, spiritual, resiliency, and social motivations. Students explore concepts of culture diversity, advocacy, ethics, human development, and the connection between mental and physical health. Students become familiar with research and best practices of mental health and wellness as it relates to human resiliency, recovery, and functioning within an integrated health focused environment. This degree does not lead to licensure.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
MHW-501	Introduction to Mental Health and Wellness	4 credits
MHW-510	Ethics and Cultural Diversity in Mental Health and Wellness	4 credits
PSY-662	Health and Wellness	4 credits
MHW-630	Documentation, Research, & Information Literacy in Mental Health & Wellness	4 credits
MHW-642	Families in Contemporary Society	4 credits
MHW-644	Community Program Development, Implementation, and Evaluation	4 credits
MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
MHW-649 ^Ω	Mental Health and Wellness Capstone	4 credits

Master of Science in Mental Health and Wellness with an Emphasis in Integrated Health 34 credits

Master of Science in Mental Health and Wellness with an Emphasis in Prevention

Grand Canyon University's Master of Science in Mental Health and Wellness degree with an Emphasis in Prevention is designed for those students who would like to promote prevention through a variety of modalities within mental health and wellness. Students who obtain this degree may be prepared to work in schools, churches, hospitals, community-based organizations, and settings that provide comprehensive prevention services. This degree also allows students to explore areas of human nature, including cognitive, behavioral, interpersonal, mental, spiritual, resiliency, and social motivations. Students explore concepts of culture, advocacy, ethics, human development, and psychopathology. Students also become familiar with research and best practices of mental health and wellness as it relates to the promotion of health and wellness, human resiliency, recovery, and functioning. This degree does not lead to licensure.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
MHW-501	Introduction to Mental Health and Wellness	4 credits
MHW-510	Ethics and Cultural Diversity in Mental Health and Wellness	4 credits
MHW-514	Introduction to Prevention Science	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

MHW-524	Prevention Throughout the Lifespan	4 credits
MHW-634	Specific Prevention Topics	4 credits
MHW-644	Community Program Development, Implementation, and Evaluation	4 credits
MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
MHW-649 ^Ω	Mental Health and Wellness Capstone	4 credits

Master of Science in Mental Health and Wellness with an Emphasis in Prevention 34 credits

Master of Science in Psychology with an Emphasis in Forensic Psychology

The Master of Science in Psychology with an Emphasis in Forensic Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. The program provides a comprehensive, rigorous, and analytic study of crime and society's responses to it. A focus is placed on the application of theory and research methods in the development of initiatives, policies, and practice. Students will develop a strong understanding and development of criminal justice ethics, issues of diversity, critical thinking, analytic, and leadership skills.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
PSY-510	Contemporary and Ethical Issues in Psychology	4 credits
PSY-530	Social and Cultural Psychology	4 credits
PSY-620	Theories of Criminal Behavior	4 credits
PSY-621	Psychology and the Legal System	4 credits
PSY-520	Graduate Statistics	4 credits
PSY-550 ^Ω	Research Methods	4 credits
PSY-622	Psychopathology of Crime	4 credits
PSY-623	Offender Rehabilitation and Reintegration	4 credits
PSY-693 ^Ω	Professional Capstone	2 credits

Master of Science in Psychology with an Emphasis in Forensic Psychology 36 credits

Master of Science in Psychology with an Emphasis in General Psychology

The Master of Science in Psychology with an Emphasis in General Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology or related fields. Masters in psychology graduates seek careers working in a variety of settings including non-profit and for profit organizations. With a focus on the development of critical thinking and leadership qualities, graduates can impact others through leadership, action research, and introduction of programmatic community changes whether they are acting from the perspective of teachers, practitioners, or researchers. This program focuses on topics that include: contemporary and ethical issues in psychology; learning, cognition, and motivation; statistics; human development; research methods; health psychology; social and cultural psychology; and psychopathology. The program concludes with a capstone course that involves a research proposal.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
PSY-510	Contemporary and Ethical Issues in Psychology	4 credits
PSY-560	Learning, Cognition, and Motivation	4 credits
PSY-530	Social and Cultural Psychology	4 credits
PSY-650	Human Development	4 credits
PSY-520	Graduate Statistics	4 credits
PSY-660	Health Psychology	4 credits
PSY-550	Research Methods	4 credits
PSY-570	Psychopathology	4 credits
PSY-693 ^Ω	Professional Capstone	2 credits

Master of Science in Psychology with an Emphasis in General Psychology 36 credits

Master of Science in Psychology with an Emphasis in GeroPsychology

The Master of Science in Psychology with an Emphasis in GeroPsychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. Geropsychology is a specialized field in psychology focusing on psychological and neurological aspects of aging. Student pursuing a Master's degree with an emphasis in geropsychology will apply theory and research practices to lead and influence change psychological care provided to the elderly. Exploration between the body and the mind will be explored so that interventions can be presented, which will inspire positive change. Topics of focus will include assisting aging adults to cope with anxiety, depression, and physical debilities associated with the process of aging. Graduates will be prepared to conduct research on diseases related to aging such as dementia.

Degree Requirements

UNV-503 ^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
PSY-510	Contemporary and Ethical Issues in Psychology	4 credits
PSY-530	Social and Cultural Psychology	4 credits
PSY-630	Sociology of Aging	4 credits
PSY-631	Death and Dying	4 credits
PSY-520	Graduate Statistics	4 credits
PSY-550 ^Ω	Research Methods	4 credits
PSY-632	Physical Health and the Biology of Aging	4 credits
PSY-633	Psychological, and Emotional, and Spiritual Aspects of Aging	4 credits
PSY-693 ^Ω	Professional Capstone	2 credits

Master of Science in Psychology with an Emphasis in GeroPsychology 36 credits

Master of Science in Psychology with an Emphasis in Health Psychology

The Master of Science in Psychology with an Emphasis in Health Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. The Master's degree with an emphasis in health

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

psychology focuses on psychological, biological and social factors influencing health and illness. Students pursuing a Master's degree with an emphasis in Health Psychology will assist individuals or groups in preventing illness and promoting healthy behaviors. Theory and research practices will be presented to prepare graduates to lead and influence change health among diverse communities. Exploration between the body and the mind will be explored so that interventions can be presented which will inspire positive change. Stress, nutrition, complementary and alternative medical approaches, eating disorders, medical compliance, and pain management are topics of interest, which will be explored in regards to how they affect health and illness. Graduates will be prepared to conduct research and work in a variety of settings including hospitals, universities, private corporations, government settings, private agencies, and health care clinics.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
PSY-510	Contemporary and Ethical Issues in Psychology	4 credits
PSY-530	Social and Cultural Psychology	4 credits
PSY-661	Promotion of Health Behaviors	4 credits
PSY-662	Health and Wellness	4 credits
PSY-520	Graduate Statistics	4 credits
PSY-550^Ω	Research Methods	4 credits
PSY-664	Community Health	4 credits
PSY-663	Future of Health Psychology	4 credits
PSY-693^Ω	Professional Capstone	2 credits
Master of Science in Psychology with an Emphasis in Health Psychology		36 credits

Master of Science in Psychology with an Emphasis in Human Factors Psychology

The Master of Science in Psychology with an Emphasis in Human Factors Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. Human Factors Psychology is the merging of the fields of psychology and engineering. It is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system. This profession applies research, theory, principles, data, and other methods to design in order to optimize overall system performance. This field strives to make technology easier and safer for people to use and to improve everyday life. Areas that Human Factors Psychologist's specialize in include; human computer interaction, usability, user experience design and product design. Individuals in Human Factors work in a variety of settings including government, all branches of the armed services, universities, and private technology driven companies, specializing in hardware and software product and systems.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
PSY-510	Contemporary and Ethical Issues in Psychology	4 credits
PSY-530	Social and Cultural Psychology	4 credits
PSY-580	Foundations of Human Factors	4 credits

PSY-581	Sensation and Perception	4 credits
PSY-520	Graduate Statistics	4 credits
PSY-550^Ω	Research Methods	4 credits
PSY-582	Software	4 credits
PSY-583	Cognition	4 credits
PSY-693^Ω	Professional Capstone	2 credits

Master of Science in Psychology with an Emphasis in Human Factors Psychology 36 credits

Master of Science in Psychology with an Emphasis in Industrial and Organizational Psychology

The Master of Science in Psychology with an Emphasis in Industrial and Organizational Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. Though the work environments and job titles vary widely, oftentimes individuals with a degree in industrial and organizational psychology pursue careers as consultants and academicians.

In the master's in industrial organizational psychology program, students will study the principles of psychology in order to gain an understanding of why people act the way they do in the workplace, allowing them to better predict employer behavior. A strong focus is placed on producing usable data regarding workplace performance in order to offer recommendations to management.

Other topics included in the Master of Science in Psychology with an Emphasis in Industrial and Organizational Psychology are: contemporary and ethical issues in psychology, industrial/organizational psychology, statistics, organizational behavior and development, research methods, strategies for effective leadership and consultation, social and cultural psychology, and principles of personnel and human resource management.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
PSY-510	Contemporary and Ethical Issues in Psychology	4 credits
PSY-565	Industrial/Organizational Psychology	4 credits
PSY-530	Social and Cultural Psychology	4 credits
PSY-575	Organizational Behavior and Development	4 credits
PSY-520	Graduate Statistics	4 credits
PSY-655	Strategies for Effective Leadership and Consultation	4 credits
PSY-550	Research Methods	4 credits
PSY-665	Principles of Personnel and Human Resource Management	4 credits
PSY-693^Ω	Professional Capstone	2 credits

Master of Science in Psychology with an Emphasis in Industrial and Organizational Psychology 36 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Master of Science in Psychology with an Emphasis in Life Coaching

The Master of Science in Psychology with an Emphasis in Life Coaching is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. Life Coaching is an emerging field that involves and integrates areas of sociology, psychology and counseling. Student's pursuing a Master's degree in Psychology with an emphasis in Life Coaching will learn the skills necessary to assist others in facilitating change in their lives and include techniques and strategies related to helping others fulfill their personal and professional potential. Employment prospects in this area include working with a range of diverse individuals, groups and professional organizations. Building a business, utilizing resources to change careers, learning to create and sustain balance in one's life as well as growing and enhancing motivation levels are just a few of themes that a graduate from this program will master. Important topics in this field of study include advanced rapport building and communication strategies, identifying maladaptive cognitions, exploration of theories and models of effective leadership, interviewing and observational techniques as well as data analysis. The program prepares graduates for a non-licensed, helping profession beyond completion of the program.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
PSY-510	Contemporary and Ethical Issues in Psychology	4 credits
PSY-530	Social and Cultural Psychology	4 credits
PSY-610	Introduction to Coaching	4 credits
PSY-611	Individual Coaching	4 credits
PSY-520	Graduate Statistics	4 credits
PSY-550	Research Methods	4 credits
PSY-612	Business and Organization Coaching	4 credits
PSY-613	Assessment/Facilitation	4 credits
PSY-693^Ω	Professional Capstone	2 credits
Master of Science in Psychology with an Emphasis in Life Coaching		36 credits

Master of Science in Sociology with an Emphasis in Education

Grand Canyon University's Master of Science in Sociology with an Emphasis in Education prepares students for teaching undergraduate courses at the 2-year or 4-year institution in both ground and online modalities. Balancing sociology content with pedagogy and classroom techniques, this unique program offers a pathway to obtaining advanced training in the field of sociology while satisfying the requirements for ongoing professional development. Graduates of this program will be able to fulfill the graduate course requirements necessary for opportunities in teaching at the post-secondary level.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
SOC-502	Sociology Today	4 credits

SOC-500	Social Theory	4 credits
EDU-534	Effective Pedagogy for Higher Education	4 credits
SOC-505	Sociology of the Family	4 credits
SOC-510	Stratification from Global Perspectives	4 credits
EDU-548	Curricular and Instructional Methods in Higher Education	4 credits
SOC-515	Social Change and Development	4 credits
SOC-520	Sociology and Pedagogy in the University	4 credits
Master of Science in Sociology with an Emphasis in Education		34 credits

Master of Social Work

The Grand Canyon University's Master of Science in Social Work (MSW) program is designed to prepare students to gain knowledge and skills to apply social work principles, values, and ethics when working with individuals, families, and communities on various social and behavioral health issues with an Advanced Generalist Social Work practice focus. Students in the MSW Program are prepared to actively engage in social justice issues affecting diverse individuals, families, communities, and organizations, employing evidence-based practice, strategies, and interventions. This program has been developed, adhering to the social work standards and competencies established by the Council on Social Work Education (CSWE). This program of study is designed to meet the academic requirements for Licensed Master Social Work (LMSW). Licensing requirements may vary from state to state. It is the students' responsibility to check the licensing requirements in their respective state. This program includes a total of 960 field experience hours.

Degree Requirements

UNV-510^Ω	Introduction to Graduate Studies in Social Work	2 credits
SWK-515^Ω	Human Behavior in the Social Environment I: Conception to Middle Childhood	3 credits
SWK-520^Ω	Social Welfare Policy and Services	3 credits
SWK-525^Ω	Generalist Social Work Practice I: Working With Individuals and Systems	3 credits
SWK-530^Ω	Diversity and Social Justice in Social Work	3 credits
SWK-535^Ω	Field Instruction I	4 credits
SWK-540^Ω	Human Behavior in the Social Environment II: Adolescence to Late Adulthood	3 credits
SWK-545^Ω	Generalist Social Work Practice II: Groups, Communities, and Organizations	3 credits
SWK-550^Ω	Field Instruction II	4 credits
SWK-555^Ω	Methods of Research in Social Work I	3 credits
SWK-600^Ω	Psychopathology and the Role of the Social Worker	3 credits
SWK-605^Ω	Military Social Work	3 credits
SWK-610^Ω	Advanced Social Work Practice Skills I: Individuals and Families	3 credits
SWK-620^Ω	Field Instruction III	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

SWK-625^Ω	Evidence Based Practice in Social Work	3 credits
SWK-630^Ω	Crisis Intervention Practice Skills	3 credits
SWK-635^Ω	Field Instruction IV	4 credits
SWK-640^Ω	Advanced Social Work Practice Skills II: Groups	3 credits
SWK-645^Ω	Methods of Research in Social Work II	3 credits
SWK-690^Ω	Social Work Capstone	2 credits
Master of Social Work		62 credits

Graduate Certificate of Completion in Christian Counseling

Grand Canyon University's Graduate Certificate of Completion in Christian Counseling offers an introduction to counseling theory within a Christian worldview. Students will take courses that integrate a Christ-centered approach to emotional and behavioral health difficulties. This certificate introduces students to the counseling field, which includes the integration of counseling theory, Christian worldview, and the study of spiritual formation. This certificate also offers an exploration of spiritual health for the helping professional. This certificate does not lead to certification or licensure.

Degree Requirements

CCN-601	Biblical Foundations for Counselors: The Story of God	3 credits
CCN-650	Spiritual Formation: Becoming a Healthy Practitioner	3 credits
CCN-655	Biblical Concepts-Healthy Relationships: Forgiveness & Healthy Spirituality	3 credits
CCN-675	Integration of Scripture with Counseling Theory	3 credits
Graduate Certificate of Completion in Christian Counseling		12 credits

Graduate Certificate of Completion in Forensic Psychology

The Graduate Certificate of Completion in Forensic Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. The program provides a comprehensive, rigorous, and analytic study of crime and society's responses to it. A focus is placed on the application of theory and research methods in the development of initiatives, policies, and practice. Students will develop a strong understanding and development of criminal justice ethics, issues of diversity, critical thinking, analytic, and leadership skills.

Degree Requirements

PSY-620	Theories of Criminal Behavior	4 credits
PSY-621	Psychology and the Legal System	4 credits
PSY-622	Psychopathology of Crime	4 credits
PSY-623	Offender Rehabilitation and Reintegration	4 credits
Graduate Certificate of Completion in Forensic Psychology		16 credits

Graduate Certificate of Completion in GeroPsychology

The Graduate Certificate of Completion in GeroPsychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. GeroPsychology is a specialized field in psychology focusing on psychological and neurological aspects of aging. Student pursuing a graduate-level certificate in geropsychology will apply theory and research practices to lead and influence change psychological care provided to the elderly. Exploration between the body and the mind will be explored so that interventions can be presented, which will inspire positive change. Topics of focus will include assisting aging adults to cope with anxiety, depression, and physical debilities associated with the process of aging. Graduates will be prepared to conduct research on diseases related to aging such as dementia.

Degree Requirements

PSY-630	Sociology of Aging	4 credits
PSY-631	Death and Dying	4 credits
PSY-632	Physical Health and the Biology of the Aging	4 credits
PSY-633	Psychological, and Emotional, and Spiritual Aspects of Aging	4 credits
Graduate Certificate of Completion in GeroPsychology		16 credits

Graduate Certificate of Completion in Health Psychology

The Graduate Certificate of Completion in Health Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. The certificate program focuses on psychological, biological and social factors influencing health and illness. Students pursuing a graduate-level certificate will assist individuals or groups in preventing illness and promoting healthy behaviors. Theory and research practices will be presented to prepare graduates to lead and influence change health among diverse communities. Exploration between the body and the mind will be explored so that interventions can be presented which will inspire positive change. Stress, nutrition, complementary and alternative medical approaches, eating disorders, medical compliance, and pain management are topics of interest, which will be explored in regards to how they affect health and illness. Graduates will be prepared to conduct research and work in a variety of settings including hospitals, universities, private corporations, government settings, private agencies, and health care clinics.

Degree Requirements

PSY-661	Promotion of Health Behaviors	4 credits
PSY-662	Health and Wellness	4 credits
PSY-664	Community Health	4 credits
PSY-663	Future of Health Psychology	4 credits
Graduate Certificate of Completion in Health Psychology		16 credits

Graduate Certificate of Completion in Human Factors Psychology

The Graduate Certificate of Completion in Human Factors Psychology is a program designed for individuals who desire

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

promotion and/or continued academic exposure in the field of psychology. Human Factors Psychology is the merging of the fields of psychology and engineering. It is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system. This profession applies research, theory, principles, data, and other methods to design in order to optimize overall system performance. This field strives to make technology easier and safer for people to use and to improve everyday life. Areas that Human Factors Psychologist's specialize in include; human computer interaction, usability, user experience design and product design. Individuals in Human Factors work in a variety of settings including government, all branches of the armed services, universities, and private technology driven companies, specializing in hardware and software product and systems.

Degree Requirements

PSY-580	Foundations of Human Factors	4 credits
PSY-581	Sensation and Perception	4 credits
PSY-582	Software	4 credits
PSY-583	Cognition	4 credits
Graduate Certificate of Completion in Human Factors Psychology		16 credits

Graduate Certificate of Completion in Industrial and Organizational Psychology

The Graduate Certificate of Completion in Industrial and Organizational Psychology is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. Though the work environments and job titles vary widely, oftentimes individuals with a certificate in industrial and organizational psychology pursue careers as consultants and academicians.

In the graduate certificate of completion in industrial organizational psychology program, students will study the principles of psychology in order to gain an understanding of why people act the way they do in the workplace, allowing them to better predict employer behavior. A strong focus is placed on producing usable data regarding workplace performance in order to offer recommendations to management.

Degree Requirements

PSY-565	Principles of Industrial and Organizational Psychology	4 credits
PSY-575	Organizational Behavior and Development	4 credits
PSY-655	Strategies for Effective Leadership and Consultation	4 credits
PSY-665	Principles of Personnel and Human Resource Management	4 credits
Graduate Certificate of Completion in Industrial and Organizational Psychology		16 credits

Graduate Certificate of Completion in Life Coaching

The Graduate Certificate of Completion in Life Coaching is a program designed for individuals who desire promotion and/or continued academic exposure in the field of psychology. Life Coaching is an emerging field that involves and integrates areas of sociology, psychology and counseling. Student's pursuing a graduate certificate in Life Coaching will learn the skills

necessary to assist others in facilitating change in their lives and include techniques and strategies related to helping others fulfill their personal and professional potential. Employment prospects in this area include working with a range of diverse individuals, groups and professional organizations. Building a business, utilizing resources to change careers, learning to create and sustain balance in one's life as well as growing and enhancing motivation levels are just a few of themes that a graduate from this program will master. Important topics in this field of study include advanced rapport building and communication strategies, identifying maladaptive cognitions, exploration of theories and models of effective leadership, interviewing and observational techniques as well as data analysis. The program prepares graduates for a non-licensed, helping profession beyond completion of the program.

Degree Requirements

PSY-610	Introduction to Coaching	4 credits
PSY-611	Individual Coaching	4 credits
PSY-612	Business and Organization Coaching	4 credits
PSY-613	Assessment/Facilitation	4 credits
Graduate Certificate of Completion in Life Coaching		16 credits

Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Community Mental Health Administration

Grand Canyon University's Graduate Certificate of Completion in Mental Health and Wellness with an Emphasis in Community Mental Health Administration program is designed for students interested in learning program planning and development, including policies and procedures and working with budgets, and learning leadership skills to apply in an administration role. Students who obtain this certificate may be prepared to work in churches, hospitals, community-based organizations, and settings that provide social services. This certificate introduces students to integrating mental health and wellness principles in a leadership role. Students explore concepts of effective communication, motivation, supervisory skills, culture, advocacy, ethics, and personal and professional development. This certificate does not lead to licensure.

Degree Requirements

MHW-640	Mental Health, Wellness, and Health Care Integration	4 credits
ADM-614	Economics for Public Administrators	4 credits
ADM-624	Public Governance	4 credits
ADM-626	Public Budgeting and Financial Management	4 credits
Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Community Mental Health Administration		16 credits

Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Family Dynamics Studies

Grand Canyon University's Graduate Certificate of Completion in Mental Health and Wellness with an Emphasis in Family Dynamics Studies program is designed for students interested in

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

working with families and various community settings, promoting mental health and wellness. Students will explore areas of family development, family dynamics, parenting, and social motivations. Students are also introduced to research and best practices for integrating mental health and wellness principles within family dynamics and systems. This certificate does not lead to certification or licensure.

Degree Requirements

MHW-512	Introduction to Family Dynamics & Systems	4 credits
MHW-522	Family Development	4 credits
MHW-632	Parenting	4 credits
MHW-642	Families in Contemporary Society	4 credits

Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Family Dynamics Studies	16 credits
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Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Integrated Health

Grand Canyon University's Graduate Certificate of Completion in Mental Health and Wellness with an Emphasis in Integrated Health introduces students to the field of integrated healthcare practices. Students discuss integrated health program assessment, development, and implementation, and are exposed to the therapeutic relationship between patients and practitioners. Students also become familiar with research and best practices of mental health and wellness as they relate to human resiliency, recovery, and functioning within an integrated health-focused environment. This certificate does not lead to certification or licensure.

Degree Requirements

MHW-630	Documentation, Research, & Information Literacy in Mental Health & Wellness	4 credits
MHW-642	Families in Contemporary Society	4 credits
MHW-644	Community Program Development, Implementation, and Evaluation	4 credits
PSY-662	Health and Wellness	4 credits

Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Integrated Health	16 credits
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Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Grief and Bereavement

Grand Canyon University's Graduate Certificate of Completion in Mental Health and Wellness with an Emphasis in Grief and Bereavement program is designed to allow students to gain knowledge and understanding of the dying, death, loss and bereavement within the context of mental health and wellness. Students become familiar with concepts of human nature as it relates to loss and bereavement, including cognitive, behavioral, interpersonal, mental, spiritual, resiliency, family and social dynamics. Students are introduced to research and best practices of mental health and wellness when working with the bereaved and those affected by loss. This certificate does not lead to licensure.

Degree Requirements

MHW513	Grief and Bereavement Theory and Practice	4 credits
MHW523	Journey of the Bereaved	4 credits
PSY-631	Death and Dying	4 credits
MHW-643	Death & Dying: The Influences of Cultural, Spiritual & Sociological Factors	4 credits

Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Grief and Bereavement	16 credits
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Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Christian Ministry

Grand Canyon University's Graduate Certificate of Completion in Mental Health and Wellness with an Emphasis in Christian Ministry offers a basic foundation in biblical knowledge and theological wisdom within the context of mental health and wellness. Students become familiar with concepts of human nature from a Christian perspective, including cognitive, behavioral, interpersonal, mental, social, and spiritual motivations. Students also become familiar with research and best practices in mental health and wellness as it relates to human resiliency, recovery, and functioning. This certificate does not lead to licensure.

Degree Requirements

MHW-511	Mental Health, the Biblical Narrative, and Christian Theology	4 credits
MHW-521	Integrating Psychology and Christian Theology	4 credits
MHW-631	Spiritual Formation, Identity, and Wellness	4 credits
MHW-641	Mental Health Issues in Ministry	4 credits

Graduate Certificate of Completion in Mental Health and Wellness Emphasis in Christian Ministry	16 credits
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Graduate Certificate of Completion in Sociology

The Graduate Certificate in Sociology prepares students with content expertise required to teach Sociology coursework at a 2-year or 4-year institution of higher learning in both ground and online modalities. Including courses in social theory, stratification, social change and pedagogy, this unique program provides advanced training in the field of Sociology, while satisfying the requirements for ongoing professional development.

Degree Requirements

SOC-500	Social Theory	4 credits
SOC-505	Sociology of the Family	4 credits
SOC-510	Social Change and Development	4 credits
SOC-520	Sociology and Pedagogy in the University	4 credits

Graduate Certificate of Completion in Sociology	20 credits
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[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Post-Master of Science in Counseling: Addiction Counseling Certificate

The Post-Master of Science in Counseling: Addiction Counseling Certificate is designed for professionals who are working in a field related to behavioral and/or mental health. The program provides students with the knowledge and skills necessary to assess and address substance use and addictive disorders, as specified in the DSM. While this certificate may lead to certification with certain associations, it is not intended to lead to licensure. Students should apply the acquired knowledge within their license or certification scope of practice.

Degree Requirements

PCN-640	Specialization in Professional Counseling	3 credits
PCN-501	Introduction to Addiction and Substance Use Disorders	3 credits
PCN-529	Co-Occurring Disorders	3 credits
PCN-531	Family Issues and Addictive Disorders	3 credits
PCN-535	Counseling Chemically Dependent Adolescents	3 credits

Post-Master of Science in Counseling: Addiction Counseling Certificate 15 credits

Post-Master of Science in Counseling: Childhood and Adolescence Disorders Certificate

The Post-Master of Science in Counseling: Childhood and Adolescence Disorders Certificate is designed for professionals who are working in a field related to behavioral and/or mental health. The program provides students with the knowledge and skills necessary to assess and address childhood- and adolescence-related disorders, developmental issues, child-parent-related issues, school and family life, and disorders specified in the DSM. While this certificate may lead to certification with certain associations, it is not intended to lead to licensure. Students should apply the acquired knowledge within their license or certification scope of practice.

Degree Requirements

PCN-640	Specialization in Professional Counseling	3 credits
PCN-670	Development through Childhood and Adolescence	3 credits
PCN-673	Developmental Disabilities	3 credits
PCN-672	Childhood and Adolescent Trauma	3 credits
PCN-671	Psychopathology and Treatment of Children and Adolescence	3 credits

Post-Master of Science in Counseling: Childhood and Adolescence Disorders Certificate 15 credits

Post-Master of Science in Counseling: Marriage and Family Therapy Certificate

The Post-Master of Science in Counseling: Marriage and Family Therapy Certificate is designed for professionals who are working in a field related to behavioral and/or mental health. The program provides students with the knowledge and skills necessary to assess and address marriage- and family-related issues, including, but not limited to, communication issues, parent-child relationship, family system dynamics, and couple's issues. While this certificate may lead to certification with certain

associations, it is not intended to lead to licensure. Students should apply the acquired knowledge within their license or certification scope of practice.

Degree Requirements

PCN-640	Specialization in Professional Counseling	3 credits
MFT-526	Advanced Family Systems Theory	3 credits
MFT-621	Couples and Family Dynamics: Systemic Perspectives	3 credits
MFT-620	Diversity in Family Systems	3 credits
MFT-532	Family Systems and Addictive Disorders	3 credits

Post-Master of Science in Counseling: Marriage and Family Therapy Certificate 15 credits

Post-Master of Science in Counseling: Trauma Certificate

The Post-Master of Science in Counseling: Trauma Certificate is designed for professionals who are working in a field related to behavioral and/or mental health. This program prepares students to assess and treat developmental, childhood, and adulthood trauma-related disorders. It offers students a comprehensive study of human behavior and trauma-informed care. While this certificate may lead to certification with certain associations, it is not intended to lead to licensure. Students should apply the acquired knowledge within their license or certification scope of practice.

Degree Requirements

PCN-640	Specialization in Professional Counseling	3 credits
PCN-680	Theoretical Foundations of Trauma Assessment, Diagnosis, and Treatment	3 credits
PCN-682	Relational Trauma: History and Treatment Issues	3 credits
PCN-683	Working with Developmental Trauma	3 credits
PCN-681	Community and Global Disaster Response	3 credits

Post-Master of Science in Counseling: Trauma Certificate 15 credits

Minors

Minor in Behavioral Health Sciences

The new minor in Behavioral Health focuses on a core of useful and requisite knowledge to successfully work within the behavioral health field. The five courses for this minor introduce students to the behavioral health field by teaching them concepts related to ethics, cultural diversity, and basic clinical skills to apply as behavioral health paraprofessionals. It will help fulfill the great demand for entry-level professionals to work as part of an interdisciplinary team in behavioral health. This certificate will offer the necessary education to prepare students seeking employment as behavioral health paraprofessionals. This certificate does not lead to licensure or certification.

Minor Requirements

PCN-107	Introduction to Counseling Theories	4 credits
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[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BHS-240	Group Dynamics and Process	4 credits
BHS-320	Ethics of Behavioral Health Science	4 credits
BHS-330	Culture and Social Diversity in Behavioral Health	4 credits
BHS-350	Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
Minor in Behavioral Health Sciences		20 credits

Minor in Communication

The minor in Communication is designed to develop a student's knowledge base of the theory of communication as well as how to speak, write, and think critically. The minor in Communication prepares students for positions in business, government, education, science, and healthcare. Communication is essential for the development of the whole person—socially, culturally, and professionally.

Minor Requirements

COM-100	Fundamentals of Communications	4 credits
COM-222	Small Group Communications	4 credits
COM-312	Conflict and Negotiations	4 credits
COM-456	Organizational Communication	4 credits
Minor in Communication		16 credits

Minor in Counseling

The minor in Counseling is designed to develop students' understanding of counseling theories and how they relate to working in the human relations field of behavioral health. This minor prepares students with applicable skills in interpreting diagnoses, writing reports, and working on integrative health teams. It prepares students for positions in behavioral health settings such as community and private organizations. The minor in Counseling will also coordinate well with the theoretical backgrounds of psychology, sociology, communications, and ministry. The interplay of theory and practical skills will allow students to market their skills to a wider audience of employers. This minor does not lead to licensure.

Minor Requirements

PCN-100	Foundations of Addiction and Substance Use Disorders	4 credits
PCN-107	Introduction to Counseling Theories	4 credits
PCN-255	Case Management and Crisis Skills for Addiction and Substance	4 credits
PCN-404 ^Δ	Prof, Legal & Ethical Issues-Addiction & Substance Use Disorder	4 credits

Minor in Counseling 16 credits

Minor in Criminal Justice

The minor in criminal justice provides knowledge and skills across a broad range of real-world applications in criminal justice. Students acquire detailed knowledge of criminality and the justice system's response to criminal behavior. They are prepared for careers in local, state, and federal law enforcement such as police, sheriff, probation, and correctional officers.

Minor Requirements

JUS-212	Criminal Behavior and Victimology	4 credits
JUS-320	Police Function	4 credits
JUS-430	Criminal Law	4 credits
JUS-441	Criminal Procedure and Public Policy	4 credits
Minor in Criminal Justice		16 credits

Minor in Forensic Psychology

The minor in forensic psychology focuses on the psychological experiences of victims and sheds insight into abnormal human behavior. Students are introduced to an understanding of the criminal justice system and exposed to crime-scene processing. The minor program better prepares students to work with people who need assistance coping with the aftereffects of a violent crime. More often than not, police officers are the first point of contact for these individuals. The program is designed for individuals seeking a career as a correctional professional, social worker, homeland security professional, community mental health professional, or private-sector worker.

Minor Requirements

JUS-212	Criminal Behavior and Victimology	4 credits
SCI-220	Forensic Photography & Reconstruction	4 credits
SCI-255	Crime Scene Processing	3 credits
SCI-255L	Crime Scene Processing Lab	1 credit
PSY-470	Abnormal Psychology	4 credits
BHS-440	Understanding Trauma	4 credits
Minor in Forensic Psychology		20 credits

Minor in History

The Minor in History encourages students to develop cultural and critical thinking competencies which orient them toward a better understanding of the global economy.

This program provides graduates with foundational knowledge of where society has come from and how best to interact with a wide variety of people from all walks of life..

Minor Requirements

HIS-325	Ancient Mediterranean History	4 credits
HIS-350	Survey of Asian Empires	4 credits
HIS-380	Renaissance and Reformation	4 credits
HIS-426	20 th Century Europe	4 credits
Minor in History		16 credits

Minor in Human Services Case Management

The minor in Human Services Case Management provides a well-rounded knowledge in understanding trauma-informed care, case management process, coordination of care, and working on integrative human services teams and other helping professions. This minor coordinates well with theoretical backgrounds in psychology, sociology, counseling, and ministry.

Minor Requirements

SOC-372	Introduction to Social Work	4 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BHS-350	Report Writing, Research, and Information Literacy in Behavioral Health	4 credits
BHS-470	Introduction to Trauma-Informed Care	4 credits
SOC-445	Case Management	4 credits
Minor in Human Services Case Management		16 credits

Minor in Literature

The minor in Literature broadens students' exposure to, and deepens their understanding and appreciation of, essential works of fiction, poetry, and drama. The works selected represent every important period and genre in the history of British and American literature, from Anglo-Saxon poetry to Existentialist drama. The authors studied in this program include the mainstays of the literary canon such as Chaucer, Shakespeare, Pope, Wordsworth, Hawthorne, Whitman, Dickinson, James, and Eliot, as well as writers whose works exemplify the challenges faced by women, Native Americans, African Americans, and other overlooked groups.

Minor Requirements

ENG-357	Foundational Texts of British Literature	4 credits
ENG-359	Transatlantic Literature	4 credits
ENG-360	American Encounter Narratives	4 credits
ENG-451	Shakespeare and the History of Drama	4 credits
Minor in Literature		16 credits

Minor in Mathematics

The minor in mathematics teaches skills in mathematical modeling, including many applications in computer science, engineering, and business. It helps students prepare for high-demand careers in STEM (science, technology, engineering, and math), statistical modeling, and quantitative visualization and analytics.

Minor Requirements

MAT-252	Calculus and Analytic Geometry	4 credits
MAT-253	Calculus and Analytic Geometry II	4 credits
MAT-215	Discrete Mathematics	4 credits
MAT-345	Applied Linear Algebra	4 credits
MAT-470	Mathematical Modeling	4 credits
Minor in Mathematicse		20 credits

Minor in Performance and Sport Psychology

The Minor in Performance and Sport Psychology provides individuals interested in sport, performing arts, health and fitness, or mental health fields the opportunity to develop their skills and abilities to improve the performance and lives of those with whom they work. The field of sport and performance psychology is concerned with the psychological factors that influence human performance. It involves improving the lives of others through assessment and intervention strategies that enhance performance and personal growth.

Minor Requirements

PSY-366	Introduction to Sport and Exercise Psychology	4 credits
PSY-368	Social Aspects of Sport/Psychosocial Aspects of Sport	4 credits
PSY-410	Psychology of Coaching	4 credits
PSY-425	Leadership and Team Building	4 credits
Minor in Performance and Sport Psychology		16 credits

Minor in Pre-Law

The Pre-Law Minor provides students with exposure to major concepts of the law, which include the philosophical underpinnings of the western legal tradition, civil law, criminal law and the practice of law. This foundation of legal thought is an ideal preparation for law school or a legal career path for students that desire to get a head start in their understanding of the framework of law.

Minor Requirements

GOV-357	Philosophy of Law	4 credits
GOV-360	Civil Law	4 credits
JUS-430	Criminal Law	4 credits
GOV-455	Practice of Law	4 credits
Minor in Pre-Law		16 credits

Minor in Professional Writing

The new minor in Professional Writing focuses on preparing learners to develop skills in writing and editing that can be applied to a broad range of professional contexts and careers. The courses for this minor provide students with important practice, writing in a variety of professional genres, which will prepare them to adapt their practice to other contexts. Skills learned can include, but are not limited to, writing for public relations, writing and presentation for news stories in various forms of media, writing technical documents, and communicating scientific ideas to laypeople.

Minor Requirements

ENG-381	Writing for Advertising and PR	4 credits
ENG-365	Multi-Media Journalism in the 21 st Century	4 credits
ENG-466	Technical Writing	4 credits
ENG-456	Communicating Scientific Ideas to Popular Audiences	4 credits
Minor in Professional Writing		16 credits

Minor in Psychology

The minor in Psychology introduces students to the study of human behavior of all ages (children through elderly adults). The program examines how personality and cognitive thinking are formed, developed, and influenced through each person's social and cultural environment. Since behavior and emotional development are often affected by both cognitive thinking and the environment, students will examine the roles of science and research in understanding and enhancing mental health.

Minor Requirements

PSY-102	General Psychology	4 credits
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[^] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-255^Δ	Personality Psychology	4 credits
PSY-352	Health Psychology	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
PSY-470^Δ	Abnormal Psychology	4 credits

Minor in Psychology 20 credits

Minor in Public Administration

The minor in Public Administration enhances students' understanding of how various factions of government and the private sector interact. Students in a business, health care, or STEM-related field would benefit, especially if there is an interest in a career tied to the public sector. This minor helps students prepare for career opportunities in the nonprofit and government sectors.

Minor Requirements

GOV-140	American Government and Politics	4 credits
GOV-351	Public Administration	4 credits
GOV-366	State and Local Government	4 credits
GOV-376	Municipal Government and Administration	4 credits

Minor in Public Administration 16 credits

Minor in Social Work

The new minor in Social Work focuses on preparing learners to pursue entry level careers in the field of social work and other helping professions. The contents of the courses provide a historical exploration of the development of social work as a profession and reviews the various populations and settings with which social workers engage within the field. Students learn case management skills, including assessment techniques, problem-

solving strategies, and how to manage a client case. Other skills learned include, but are not limited to, identifying appropriate evidence-based treatment strategies, evaluation of interventions, strategies for termination of services, application of professional ethical standards, and application of research skills to the field of social work.

Minor Requirements

SOC-372	Introduction to Social Work	4 credits
SOC-386	Human Behavior & the Social Environment	4 credits
SOC-445	Case Management	4 credits
SOC-449	Direct Practice	4 credits

Minor in Social Work 16 credits

Minor in Spanish

The minor in Spanish is designed to develop at least intermediate level fluency in listening, speaking, reading, and writing Spanish, and to provide a general introduction to Spanish culture and literature in order to enhance cross-cultural sensibilities and expand opportunities in the job market.

Minor Requirements

SPA-214	Intermediate Spanish I	4 credits
SPA-224	Intermediate Spanish II	4 credits
SPA-309	Spanish Conversation	4 credits
SPA-310^Δ	Spanish Composition and Grammar	4 credits
SPA-320	Contemporary Issues	4 credits
SPA-341	Introduction to Literature in Spanish	4 credits

Minor in Spanish 24 credits

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [♣] Honors Major Course | ^Ω Non-Transferable

The College of Nursing and Health Care Professions

College Description

The College of Nursing and Health Care Professions has a nearly 35-year tradition of preparing students to fill evolving health care roles as highly qualified professional educated in direct care, management, health education, and administrative disciplines. Our available health care degree programs span a wide range from a pre-licensure degree program to the registered nurse (RN) to Bachelor of Science in Nursing (BSN) and RN to Master of Science in Nursing (MSN). We also offer doctoral and public health degree programs.

Health care organizations value our graduates because our curriculum connects classroom theories to working scenarios through many modalities: hands-on practice, online and lab simulations, and in-depth peer discussions exploring best practices.

Grand Canyon University's (GCU) in-class and online environments advance critical thinking, professionalism, accountability, and ethical decision-making by applying science, health and nursing theories, along with a foundation of Christian Values.

College Mission

The mission of the College of Nursing and Health Care Professions is to develop professionals using systems and evidence-based practice to promote health, wellness, safety, and quality care for individual patients and populations supported by an academically rigorous liberal-arts education reflecting Christian values.

Our commitment to preparing the next generation of health care's servant leaders is evident in the diversity of relevant degree programs offered, an evolving curriculum that anticipates changing health care roles, and instruction that connects theories to the real world, through hands-on practice, lab simulations, and much more.

College Features

The College of Nursing and Health Care Professions offers both quality undergraduate and graduate degree programs that meet specific students' career and academic needs. College faculty members hold master's degrees and/or doctoral degrees. Recognition of the spiritual needs of all persons is an integral part of caring for one's self and others therefore, the spiritual dimension is integrated into courses throughout the undergraduate and graduate curriculum.

College Philosophy

The College of Nursing and Health Care Professions curriculum is designed to facilitate the students' abilities to creatively respond to continuously changing health care systems throughout the world. Educational experiences are planned to meet the needs of and to empower both students and clients. Professionalism, ethical decision making, accountability, critical thinking, and effective communication are emphasized. This is achieved through the application of liberal arts constructs, science, health and nursing theories, and the values of the Christian faith within the scope of nursing knowledge and evidence-based practice. Nursing practice promotes human dignity through compassionate caring for all human beings, without consideration of their gender, age, color, creed, lifestyle, or cultural background. The faculty of the College of Nursing and Health Care Professions is accountable for the quality of the educational programs and for the promotion of safe and effective nursing through teaching, service, and collaboration with other professionals and consumers of care. The following statements reflect the philosophical beliefs

of the faculty in relation to the concepts of health, environment, person, and nursing.

Nursing

Grand Canyon University founded its College of Nursing in 1982, and the College of Nursing and Health Care Professions continues to educate nurses through rigorous academic and clinical preparation in a tradition of values-based Christian education. The Bachelor of Science in Nursing (BSN) degree is offered through three programs: pre-licensure (traditional and fast track) and degree completion for already licensed and registered nurses. The pre-licensure curriculum is designed to help students assess individuals, the families, and communities; utilize functional health patterns within a variety of clinical settings; formulate nursing diagnoses; plan and evaluate nursing interventions; and function as professionals within the health care team. The fast-track BSN program allows students who have fulfilled all prerequisites and co-requisites to complete a degree in approximately 16 months. Building on the baccalaureate degree, the College offers a Master of Science in Nursing (MSN) featuring seven areas of focus and a dual degree: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology, Adult Clinical Nurse Specialist with an Emphasis in Adult-Gerontology, Family Nurse Practitioner, Health Care Informatics, Nursing Education, Nursing Leadership in Health Care Systems, Public Health, and Master of Business Administration/Master of Science in Nursing with an Emphasis in Nursing Leadership in Health Care Systems. The Doctor of Nursing Practice (DNP) program offers students the option to continue their education at GCU and expand upon their practice using application of evidence to improve population health outcomes.

In concert with the mission of the University, the College of Nursing and Health Care Professions faculty affirms the belief in educating nurses within a dedicated and supportive community of Christian values. The American Association of Colleges of Nursing (AACN) Essentials of Baccalaureate Education for Professional Nursing Practice guides the curriculum for the baccalaureate program. The AACN Essentials of Master's Education for Advanced Nursing Practice, Advanced Nursing Practice: Curriculum Guidelines and Program Standards for Nurse Practitioner Education, National Organization of Nurse Practitioner Faculties (NONPF), AACN Nursing Practitioner Primary Care Competencies in Specialty Areas, NONPF Domains and Competencies of Nurse Practitioner Practice, the National League for Nursing Competencies for Nurse Educators and the Essentials of Doctoral Education for Advanced Nursing

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Practice provide structure for the curriculum content of the graduate-level programs.

Health

Health is the central focus of nursing. Health is a dynamic aspect of being which incorporates physical, emotional, intellectual, spiritual, and social dimensions.

Environment

All humans interact with the physical, emotional, intellectual, spiritual, and social environments in which they work, play, and live. The nursing role is to help provide healthy and safe environments so that persons may live in optimal health.

Person

We believe that all people are accepted and loved unconditionally, as children of God. Clients are considered to be individuals, families, groups, communities, and populations. Human diversity is cherished. Spirituality is conceived as vertical and horizontal relationships with God and with humanity. These relationships give hope and meaning in life now and in the future.

Nursing

Baccalaureate nursing practice incorporates the roles of assessing, critical thinking, communicating, providing care, teaching, and leading. The caring professional approach includes the values of autonomy, altruism, human dignity, integrity and social justice with unconditional regard for all people. Nursing practice includes health promotion, disease prevention, early detection of health deviations, prompt and adequate treatment of the human response to acute and chronic illness, and compassionate care for those experiencing death.

Masters nursing practice expands upon baccalaureate nursing concepts to include primary care practice knowledge and advanced leadership with a focus on research and quality assurance, spirituality, diversity, critical thinking, caring, and learning. The advanced professional nursing role relies on best practices and evidence-based research with a focus on evaluation of health outcomes and process.

Doctoral nursing practice builds on the Masters Essentials to incorporate development of needed advanced competencies for increasingly complex practice, faculty, and leadership roles; enhanced knowledge to improve nursing practice and patient outcomes; enhanced leadership skills to strengthen practice and health care delivery; and provision of an advanced educational credential for those who require advanced practice knowledge but do not need or desire a degree with a research focus (e.g. practice faculty).

Nursing Education

Nursing education is theory driven. Theories are derived from the humanities, sciences, and biblical concepts. Nursing knowledge, theory, research, and health promotion are influenced by spiritual perspectives, ethical, legal, political, historical, and social influences. The faculty values excellence in teaching with an individual focus on the learner. Teaching includes a variety of methods, learning modalities, and practice situations. Faculty provides opportunities for students to give comprehensive care to diverse client populations.

Learning

Learning environment is created and arranged to meet individual learning outcomes that are consistent with College of Nursing and Health Care Professions program outcomes. The College of Nursing and Health Care Professions supports life-long learning

endeavors and fosters an appreciation of diversity among traditional and nontraditional learners. Students are educated to provide, direct and evaluate client-centered care while focusing on the person as an integrated whole.

Health Care Professions

Athletic Training

The Bachelor of Science in Athletic Training is an entry-level athletic training program accredited by the Commission on Accreditation of Athletic Training Education (CAATE). This allied health profession program challenges students to apply theories and skills as they relate to a physically active population and utilizes the National Athletic Trainer's Association Educational Competencies as the framework for student learning in didactic, laboratory, and clinical courses. Athletic training students are assessed following the five domains of the athletic training profession, including:

- Injury/Illness prevention and wellness protection
- Clinical evaluation and diagnosis
- Immediate and emergency care
- Treatment and rehabilitation
- Organization and professional health and well-being

Upon degree completion, students are eligible to take the Board of Certification exam for athletic training which is necessary to practice in the profession. Many states also require licensure, certification, or registration in addition to passing the Board of Certification Exam. Certified athletic trainers work in various settings including colleges and universities, secondary schools, professional sports, orthopedic rehabilitation clinics, hospitals, the military, public safety, and the performing arts, and as physician extenders and practice administrators.

Public Health

The Master of Public Health degree is the most widely recognized professional credential for leadership positions in public health. The public health program is designed to draw on knowledge and skills from a variety of disciplines to define, assess, and ultimately resolve public health problems. Students study theories, concepts, and principles of public health and their application.

The curriculum, developed around national public health curriculum standards, uses a multidisciplinary approach that emphasizes psychological, behavioral, and social factors influencing population-based health disparities; principles of epidemiology and biostatistics; environmental public health concepts; public health administration systems and processes; and economic factors. It prepares students for an expanding range of professional opportunities and roles in public health and medicine. The Master of Public Health program culminates with a practicum and capstone project that students are able to design to best fit their area of specific interest.

The professional standards outlined by the Council on Education for Public Health (CEPH) were utilized as the foundation of this program. The following core areas of knowledge are included in the Master of Public Health curriculum:

- Biostatistics – Collection, storage, retrieval, analysis, and interpretation of health data; design and analysis of health-related surveys and experiments; and concepts and practice of statistical data analysis.
- Epidemiology – Distributions and determinants of disease, disabilities and death in human populations; the characteristics

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

and dynamics of human populations; and the natural history of disease and the biologic basis of health.

- Environmental health sciences – Environmental factors including biological, physical, and chemical factors that affect the health of a community.
- Health services administration/policy – Planning, organization, administration, management, evaluation, and policy analysis of health and public health programs.
- Social and behavioral sciences – Concepts and methods of social and behavioral sciences relevant to the identification and solution of public health problems.

Health Care Administration

Health care is the largest industry in the United States, and the second largest employer, providing more than 11 million jobs. The sector continues to grow, and faster than most other industries. There are many opportunities, requiring specialized skills sets, such as implementing policy and procedure, hiring and supervising staff, financial management, and technology management. A degree in health care administration can also be easily transferred into other industries.

The Bachelor of Science in Health Care Administration program is designed to prepare graduates for entry-level management positions in numerous health care settings such as hospitals, clinics, medical groups, long-term care facilities, physician offices, insurance companies, and state and federal organizations. The central focus of the program is to provide a comprehensive base in health-related business knowledge and concepts, with an emphasis on health care finance, the U.S. health delivery system and policy, strategic planning, health information technology, human resources, organization behavior, and legal/ethical issues in medicine. The program prepares students to excel in decision-making skills, critical thinking, and group communications. Courses offered are in traditional and online forums. Students in the Bachelor of Science in Health Care Administration program are excellent candidates for the Master of Science in Health Care Administration, Master of Public Health, and Master of Business Administration programs.

The Master of Science in Health Care Administration program is designed to prepare graduates for mid- to senior-level management positions in a variety of health care organizations. As the health care industry continues to grow, it is also becoming more competitive, and many employers prefer advanced degrees. The primary goal of this program is to develop the skills, knowledge, and experience for individuals interested in being innovative change agents and leaders within the health care industry. Individuals may be employed in a clinical health care role, with the desire to move into an administrative or management role, or have a desire to move into the health care industry in a nonclinical capacity.

The following core areas of knowledge are included in the Master of Science in Health Care Administration curriculum:

- Leadership - Explores business leadership models and theory, with special attention to application of these models within organizations.
- Organizational Behavior – Focuses on organizational structure and effectiveness, applying models for collaboration and teamwork, and the analysis of the impact of change.
- Financial and Analytical Issues – Focuses on specific financial issues in health care, the use of appropriate analytics to measure performance and budget. Evaluates economic variables that influence market performance and outcomes.

- Human Resources – Focuses on managerial communications. Areas include conflict management, negotiation, mediation, and coaching.
- Marketing and Communications – Explores internal, external, and consumer communications.

Health Care Informatics

Health care informatics is a rapidly emerging discipline. The Master of Science in Health Care Informatics program is designed to prepare students for innovative leadership positions integrating technology with clinical operations, data management, decision support systems, and quality assessment. Graduates will be prepared for roles such as project manager, researcher, systems analyst, and mid- to senior-level management positions.

The following core areas of knowledge are included in the Master of Science in Health Care Informatics curriculum:

- Concepts in Health Care Informatics – Focuses on history, application, and future need in this specialty. Includes processes that affect evidence-based medicine, administrative and clinical support, security issues, and the growing use of electronic health records.
- Health Care Information Systems – Examines the use of information technology in health care, with emphasis on changing roles and challenges with implementation and communication.
- Health Care Data Management – Focuses on relational database management, hardware technology, and data communication protocols applied when designing and implementing networks and systems.
- Health Care Research Methods and Analysis – Examines the application of research in the delivery of health care. Focuses on strategies to synthesize and apply data.

Health Sciences: Professional Development and Advanced Patient Care

The Bachelor of Science in Health Sciences: Professional Development and Advanced Patient Care program is designed for health care professionals who graduated from accredited certificate and/or associate degree programs who wish to acquire baccalaureate level competencies in health sciences theory and in health care professional issues. Allied health professionals are involved with all aspects of health care delivery and are integral members of the collaborative, health care team. This program provides a foundation for introducing essentials of baccalaureate education, emphasizing the unique role and scope of allied health professions, emphasizing an interdisciplinary and multifaceted approach to care in order to maximize their ability to meet the specific medical needs of the patient.

Nursing: Undergraduate Programs

Bachelor of Science in Nursing (BSN) Pre-Licensure

Grand Canyon University's Bachelor of Science in Nursing (BSN) Pre-Licensure degree prepares the graduate to practice as a registered nurse generalist for clients across the life span as a member of the health care team in a variety of settings. The BSN program prepares students to provide evidence-based, holistic, safe, quality care for culturally and spiritually diverse individuals, families, communities, and populations. Program emphasis

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

includes clinical nursing practice, health promotion and maintenance, hands-on experiences across the continuum of care, the use of innovative technologies and preparation for assuming leadership roles as a registered nurse. The Bachelor of Science in Nursing Pre-Licensure program is built to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Baccalaureate Education for Professional Nursing Practice; the American Nursing Association (ANA) Scope and Standards of Practice; the Quality and Safety Education in Nursing (QSEN) Project: Competencies; and the Institute of Medicine (IOM) 2010: The Future of Nursing: Leading Change, Advancing Health.

Degree Requirements

Total General Education	39 credits
Total Program Prerequisites	24 credits
Total Nursing Pre-Licensure Major	60 credits
Total Bachelor of Science in Nursing (BSN) Pre-Licensure	123 credits

Required General Education

UNV-103^Ω	University Success	4 credits
ENG-105^A	English Composition I	4 credits
MAT-144	College Mathematics	4 credits
BIO-201	Human Anatomy and Physiology I	3 credits
BIO-201L	Human Anatomy and Physiology I Lab	1 credit
ENG-106^A	English Composition II	4 credits
PSY-102	General Psychology	4 credits
MAT-274	Probability and Statistics	4 credits
CWV-101^Ω	Christian Worldview	4 credits
SOC-102	Principles of Sociology	4 credits
NSG-310	Introduction to Professional Nursing	3 credits
Total Required General Education		39 credits

General Education Program Major Prerequisites

CHM-101	Introduction to General, Organic, and Biochemistry	3 credits
CHM-101L	Introduction to General, Organic, and Biochemistry Lab	1 credit
BIO-202	Human Anatomy and Physiology II	3 credits
BIO-202L	Human Anatomy and Physiology II Lab	1 credit
BIO-205	Microbiology	3 credits
BIO-205L	Microbiology Lab	1 credit
BIO-322	Applied Pathophysiology	4 credits
BIO-319	Applied Nutrition	4 credits
PSY-357	Lifespan Development	4 credits
Total Program Prerequisites		24 credits

Nursing Pre-Licensure Major

NSG-300	Foundations of Nursing	4 credits
NSG-300C	Foundations of Nursing Clinical	2 credits
NSG-316	Health Assessment	4 credits
NSG-318	Introduction to Pharmacology	3 credits

NSG-320	Adult Health Nursing I	5 credits
NSG-320C	Adult Health Nursing I Clinical	3 credits
NSG-322	Behavioral Health Nursing	3 credits
NSG-322C	Behavioral Health Nursing Clinical	1 credit
NSG-324^Ω	Research and Evidence-Based Practice	3 credits
NSG-430	Adult Health Nursing II	5 credits
NSG-430C	Adult Health Nursing Clinical II	2 credits
NSG-432	Nursing Care of the Childbearing Family	3 credits
NSG-432C	Nursing Care of the Childbearing Family Clinical	1 credit
NSG-434	Nursing Care of the Childrearing Family	3 credits
NSG-434C	Nursing Care of the Childrearing Family Clinical	1 credit
NSG-436	Leadership, Ethics, and Policy in Health Care	3 credits
NSG-440	Population Health	3 credits
NSG-440C	Population Health Clinical	1 credit
NSG-444	Transition to Practice	4 credits
NSG-444C	Transition to Practice Group or Residency Clinical	3 credits
NSG-448^Ω	Evidence-Based Project Capstone	3 credits

Bachelor of Science in Nursing Pre-Licensure Major	60 credits
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Bachelor of Science in Nursing (RN-BSN)

The RN to BSN program is designed for registered nurses with an associate's degree or diploma in nursing. The format and courses of the regionally accredited program are tailored to meet the needs of the adult learner RN, and to maximize strengths that the working RN possesses. A bridge course facilitates the transition of the working RN into the baccalaureate program. Courses are taught by experts in their respective fields who share knowledge and experience in areas of clinical patient care, health care management, and professional nursing practice and leadership. Opportunities are provided to apply concepts, theories, and research in the RN's clinical practice. Both the science and art of nursing are integral components of the program and are woven throughout. Graduates of the program are prepared to become leaders in the nursing profession.

Program Description

The Registered Nurse to Bachelor of Science in Nursing (RN-BSN) program prepares registered nurses who have an associate degree or diploma in nursing to function as professionals within the health care team by providing holistic, safe, and quality care for individuals, families, and communities in diverse settings. The program includes an emphasis on spirituality, communication, health promotion, and disease prevention throughout the life span, which provides students the opportunity to achieve baccalaureate competencies.

The Registered Nurse to Bachelor of Science in Nursing program is built to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Baccalaureate Education for Professional Nursing Practice; the American Nursing Association (ANA) Scope and Standards of Practice; the Quality and Safety Education in Nursing (QSEN) Project:

^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Competencies; and the Institute of Medicine (IOM) 2010: The Future of Nursing: Leading Change, Advancing Health..

RN to BSN students who want to transition into GCU's Master of Science in Nursing (MSN) degree programs may complete two graduate level courses to meet their upper division elective credits for degree completion. Please refer to the [College of Nursing and Health Care Professions website](#) for additional information.

Degree Requirements

Total RN to BSN Major	36 credits
Total Other Transfer, Elective, or Certification Credits	84 credits
Total Registered Nurse to Bachelor of Science in Nursing (RN-BSN)	120 credits

Registered Nurse to Bachelor of Science in Nursing (RN-BSN) Major

NRS-430V^Ω	Professional Dynamics	3 credits
NRS-429VN	Family-Centered Health Promotion	3 credits
NRS-434VN	Health Assessment	3 credits
NRS-428VN	Concepts in Community and Public Health	3 credits
HLT-362V	Applied Statistics for Health Care Professionals	3 credits
NRS-433V^Δ	Introduction to Nursing Research	3 credits
PHI-413V	Ethical and Spiritual Decision Making in Health Care	3 credits
NRS-451VN	Nursing Leadership and Management	3 credits
NRS-410V	Pathophysiology and Nursing Management of Clients' Health	3 credits
NRS-440VN	Trends and Issues in Health Care	3 credits
NRS-493^{ΩΔ}	Professional Capstone and Practicum	6 credits
RN to BSN Major		36 credits

Bridge to Master of Science in Nursing

The Bridge to Master of Science in Nursing program is designed for registered nurses with a bachelor's degree in health sciences or other related fields. The program is intended to meet the needs of adult learners who already possess a bachelor's degree and an RN license who desire to pursue a graduate degree in nursing. Courses in the bridge program are a blending of RN to BSN core courses that are considered essential requisites to graduate study. Upon completion of bridge courses from the BSN core, students enter one of seven emphases offered for the Master of Science in Nursing or the Master of Business Administration and Master of Science in Nursing with an Emphasis in Nursing Leadership in Health Care Systems.

Degree Requirements

NRS-430V^Ω	Professional Dynamics	3 credits
NRS-434VN	Health Assessment	3 credits
HLT-362V	Applied Statistics for Health Care Professionals	3 credits
NRS-433V^Δ	Introduction to Nursing Research	3 credits

NRS-427VN	Concepts in Community and Public Health	3 credits
NRS-410V	Pathophysiology and Nursing Management of Clients' Health	3 credits
Bridge to Master of Science in Nursing		18 credits

Nursing: Graduate Programs

Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology

The Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology program prepares experienced registered nurses to provide competent advanced practice nursing care in complex, acute, and critical care settings through an evidence-based program of study. Graduates are eligible for certification as Adult-Gerontology Acute Care Nurse Practitioners. The program combines courses in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of adult and geriatric acute care patients, subacute patients, complex patients, and patients with exacerbations of chronic illness. Clinical experiences emphasize the physiological and psychosocial impact of acute and critical illness on the patient, family, and community, and prepare the Adult-Gerontology Acute Care Nurse Practitioner in the diagnosis and management of acute and life-threatening health problems. This program includes 675 hours of directly supervised clinical practice with qualified preceptors and two separate on-campus experiences. A post-master's certificate program is available to those nurses who already have a Master of Science in Nursing degree.

The Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology program is built to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Master's Education in Nursing; the American Nursing Association (ANA) Scope and Standards of Practice; the National Organization of Nurse Practitioner Faculties (NONPF); and the Inter-Professional Collaborative Practice (IPEC) Core Competencies for Interprofessional Collaborative Practice..

Degree Requirements

NUR-513^Ω	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550^Ω	Translational Research and Population Health Management	4 credits
NUR-590^Ω	Evidence-Based Practice Project	4 credits
NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-635	Advanced Pharmacology	4 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits
ANP-635^Ω	Health Promotion and Maintenance and On-Campus Experience I	4 credits
ANP-635CE^Ω	ANP-635 On-Campus Experience I	0 credit
ANP-650^Ω	Adult-Gerontology Acute Care I	7 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ANP-652^Ω	Adult-Gerontology Acute Care II	7 credits
ANP-654^Ω	Adult-Gerontology Acute Care III and On-Campus Experience II	7 credits
ANP-654CE^Ω	ANP-654 On-Campus Experience II	0 credit
Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology		53 credits
Total Clinical Hours		675 hours

Master of Science in Nursing: Family Nurse Practitioner

The Master of Science in Nursing: Family Nurse Practitioner program prepares experienced professional nurses for advanced practice as primary care providers. The family nurse practitioner (FNP) makes independent critical judgments in all levels of prevention, including health promotion; illness prevention; and diagnosis and management for individuals, families, communities, and populations. The FNP performs comprehensive health assessments, diagnoses illness, and prescribes pharmacologic and nonpharmacologic treatments to manage acute and chronic health problems to achieve quality, cost-effective outcomes in a culturally sensitive context. The role of the FNP includes educating, consulting, collaborating, using research to make practice decisions, and influencing professional and public policies. Within various practice settings, the FNP provides health care for clients across the life span. This program includes 675 hours of directly supervised clinical practice with qualified preceptors and two separate on-campus experiences. A post-master's certificate program is available to those nurses who already have a Master of Science in Nursing degree.

The Master of Science in Nursing: Family Nurse Practitioner program is built to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Master's Education in Nursing; the American Nursing Association (ANA) Scope and Standards of Practice; and the Inter-Professional Collaborative Practice (IPEC) Core Competencies for Interprofessional Collaborative Practice.

Degree Requirements

NUR-513^Ω	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550^Ω	Translational Research and Population Health Management	4 credits
NUR-590^Ω	Evidence-Based Practice Project	4 credits
NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-635	Advanced Pharmacology	4 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits
FNP-630^Ω	Health Promotion and On-Campus Experience I	4 credits
FNP-630CE^Ω	FNP-630 On-Campus Experience I	0 credit
FNP-652^Ω	Family Primary Care I	7 credits
FNP-654^Ω	Family Primary Care II	7 credits

FNP-690^Ω	Practicum and On-Campus Experience II	7 credits
FNP-690CE^Ω	FNP-690 On-Campus Experience II	0 credit
Master of Science in Nursing: Family Nurse Practitioner		53 credits
Total Clinical Hours		675 hours

Master of Science in Nursing with an Emphasis in Health Care Quality & Patient Safety

The Master of Science in Nursing with an Emphasis in Health Care Quality and Patient Safety prepares licensed nurses to apply analytical processes to improve health and patient safety outcomes. Students will develop the essential knowledge and skills to lead clinical and non-clinical process improvement projects in a complex health care environment.

Degree Requirements

NUR-513^Ω	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550^Ω	Translational Research and Population Health Management	4 credits
NUR-590^Ω	Evidence-Based Practice Project	4 credits
NUR-630	Performance Improvement and Quality in Health Care	4 credits
HQS-610	Foundations of Quality Improvement and Patient Safety	4 credits
HQS-620	Project Management in Health Care	4 credits
HQS-630	Implementation and Change Management	4 credits
HQS-640^Ω	Quality Improvement and Patient Safety Practicum	4 credits

Master of Science in Nursing with an Emphasis in Health Care Quality & Patient Safety		36 credits
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Master of Science in Nursing with an Emphasis in Health Informatics

Grand Canyon University's Master of Science in Nursing program incorporates the advanced roles of a clinician, researcher, learner/educator/coach, leader, community advocate, manager of systems, collaborator, and consultant. The master's prepared nurse requires clinical and organizational decision-making skills based on critical thinking, evidence-based research, and diagnostic reasoning. Nurses prepared at the advanced level synthesize elements of caring into the nurse-patient relationship based on advocacy, as well as ethical, social, legal, political, and historical perspectives. Emphasis is placed on client empowerment with unconditional regard for all. The role of the advanced practice registered nurse (APRN) also includes the clinical/practice component in preparation to become a nurse practitioner. Specialties within the advanced nursing role include an expansion of nursing knowledge from one of the following program emphases: education, informatics, leadership, public health, acute care nurse practitioner, and family nurse practitioner. Health informatics is a rapidly evolving discipline requiring innovative leadership. As health care reform begins to impact all areas of the health care system, greater attention is being focused on the value of using health care data in reducing health care costs, increasing access to health care, and improving

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [⁄] Honors Major Course | ^Ω Non-Transferable

the quality of health care services. The integration of information technology into health care and the continuous changes in patient-care systems require professionals and leaders with training in clinical operations, data management systems, health care system operations, project management, decision making, and quality assessment. Graduates of the Master of Science in Nursing with an Emphasis in Health Informatics program may perform a variety of functions for organizations, such as automating clinical care; choosing, customizing or building new operational data systems; training health care workers in the use of computer systems; and collecting and analyzing data to improve patient care and outcomes. Depending on their areas of strength and focus, graduates may serve as project managers, project designers, researchers, systems analysts, or administrators and executives at all levels of the organization. Graduates may work in a variety of settings, including hospitals, primary care facilities, doctor's offices, insurance companies, pharmacies, technology suppliers, consulting firms, and other related settings. Potential employers for graduates of this program include the Centers for Disease Control and Prevention, National Institutes of Health, clinical data exchange insurance sites, the government's Military Health System (hospitals), Centers for Medicare and Medicaid Services, state health care organizations, and informational technology vendors. The Master of Science in Nursing with an Emphasis in Health Informatics program is designed to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Master's Education in Nursing.

Degree Requirements

NUR-513^Ω	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550^Ω	Translational Research and Population Health Management	4 credits
NUR-590^Ω	Evidence-Based Practice Project	4 credits
HIM-615	Health Care Information Systems and Technology	4 credits
HIM-650	Health Care Data Management	4 credits
HCL-655	Electronic Health Records	4 credits
HCL-660	Health Data Analytics	4 credits
HCL-670	User Interface Design for Informatics	4 credits
NUR-690^Ω	Nursing Informatics Practicum	4 credits

Master of Science in Nursing with an Emphasis in Health Informatics 40 credits

Master of Science in Nursing with an Emphasis in Nursing Education

Grand Canyon University's Master of Science in Nursing program incorporates the advanced roles of a clinician, researcher, learner/educator/coach, leader, community advocate, manager of systems, collaborator, and consultant. The master's prepared nurse requires clinical and organizational decision-making skills based on critical thinking, evidence-based research, and diagnostic reasoning. Nurses prepared at the advanced level synthesize elements of caring into the nurse-patient relationship based on advocacy, as well as ethical, social, legal, political, and historical perspectives. Emphasis is placed on client empowerment with unconditional regard for all. The role of the advanced practice registered nurse (APRN) also includes the

clinical/practice component in preparation to become a nurse practitioner. Specialties within the advanced nursing role include an expansion of nursing knowledge from one of the following program emphases: education, informatics, leadership, public health, acute care nurse practitioner, and family nurse practitioner. The Master of Science in Nursing with an Emphasis in Nursing Education program prepares advanced professional nurses to address the ever changing and expanding educational needs of the nursing profession. The emphasis is designed for those students in the Master of Science in Nursing program who are interested in pursuing or advancing in a position in nursing education. Graduates will be prepared for a variety of roles in nursing education, either as a clinical educator or academic educator in both traditional and nontraditional settings in nursing education. A post-master certificate program is available to those nurses who already have a Master of Science in Nursing degree. The Master of Science in Nursing with an Emphasis in Nursing Education program is designed to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Master's Education in Nursing and the National League for Nursing (NLN) Nurse Educator Core Competencies.

Degree Requirements

NUR-513^Ω	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550^Ω	Translational Research and Population Health Management	4 credits
NUR-590^Ω	Evidence-Based Practice Project	4 credits
NUR-641E	Advanced Pathophysiology and Pharmacology for Nurse Educators	4 credits
NUR-643E	Advanced Health Assessment for Nurse Educators	4 credits
NUR-646E^Ω	Nursing Education Seminar I	4 credits
NUR-648E^Ω	Nursing Education Seminar II	4 credits
NUR-665E^Ω	Nursing Education Practicum	4 credits

Master of Science in Nursing with an Emphasis in Nursing Education 36 credits

Master of Science in Nursing with an Emphasis in Leadership in Health Care Systems

Grand Canyon University's Master of Science in Nursing program incorporates the advanced roles of a clinician, researcher, learner/educator/coach, leader, community advocate, manager of systems, collaborator, and consultant. The master's prepared nurse requires clinical and organizational decision-making skills based on critical thinking, evidence-based research, and diagnostic reasoning. Nurses prepared at the advanced level synthesize elements of caring into the nurse-patient relationship based on advocacy, as well as ethical, social, legal, political, and historical perspectives. Emphasis is placed on client empowerment with unconditional regard for all. The role of the advanced practice registered nurse (APRN) also includes the clinical/practice component in preparation to become a nurse practitioner. Specialties within the advanced nursing role include an expansion of nursing knowledge from one of the following program emphases: education, informatics, leadership, public health, acute care nurse practitioner, and family nurse practitioner.

The Master of Science in Nursing with an Emphasis in Leadership in Health Care Systems program prepares nurses for

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

leadership roles in today's rapidly changing health care delivery systems. The program consists of graduate nursing core and leadership courses, as well as leadership courses taken with Master of Science in Leadership (MSL) students. From the graduate nursing core courses, students gain the knowledge, values, and skills needed for advanced generalist nursing practice in an evolving health care system. The coursework in leadership provides insight into the functioning of organizations, including emphasis on financial and human resource management within health care organizations. Nursing leadership courses also emphasize the role of quality and performance improvement and the effective communication and interdisciplinary collaboration skills required of leaders in contemporary health care.

The Master of Science in Nursing with an Emphasis in Leadership in Health Care Systems program is designed to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Master's Education in Nursing.

Degree Requirements

NUR-513 ^Ω	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550 ^Ω	Translational Research and Population Health management	4 credits
NUR-590 ^Ω	Evidence-Based Practice Project	4 credits
LDR-615	Organizational Development and Change	4 credits
NUR-621	Principles of health Care Financial Management	4 credits
NUR-630	Performance Improvement and Quality in Health Care	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
NUR-674 ^Ω	Leadership in Health Care Systems Practicum	4 credits
Master of Science in Nursing with an Emphasis in Leadership in Health Care Systems		36 credits

Master of Business Administration & Master of Nursing: Nursing Leadership in Health Care Systems

Refer to the Colangelo College of Business section of the catalog for specific degree requirements and course sequence information on this program: [Master of Business Administration and Master of Science in Nursing: Nursing Leadership in Health Care Systems Dual – Degree](#).

Master of Science in Nursing with an Emphasis in Public Health Nursing

Grand Canyon University's Master of Science in Nursing program incorporates the advanced roles of a clinician, researcher, learner/educator/coach, leader, community advocate, manager of systems, collaborator, and consultant. The master's prepared nurse requires clinical and organizational decision-making skills based on critical thinking, evidence-based research, and diagnostic reasoning. Nurses prepared at the advanced level synthesize elements of caring into the nurse-patient relationship based on advocacy, as well as ethical, social, legal, political, and historical perspectives. Emphasis is placed on client empowerment with unconditional regard for all. The role of the

advanced practice registered nurse (APRN) also includes the clinical/practice component in preparation to become a nurse practitioner. Specialties within the advanced nursing role include an expansion of nursing knowledge from one of the following program emphases: education, informatics, leadership, public health, acute care nurse practitioner, and family nurse practitioner. The demand for public health professionals is rapidly increasing as a result of health care reform, environmental health concerns, emerging and re-emerging diseases, sociopolitical factors affecting the nation's health, and expansion of health issues that are global in scope. Professionals who graduate from the Master of Science in Nursing with an Emphasis in Public Health Nursing program may hold positions of responsibility in a variety of settings, including health care facilities, county and state health departments, social service agencies, health policy and planning organizations, universities, nongovernmental organizations, governmental agencies, international health organizations, community-based health education and health promotion settings, and the corporate world. Graduates of Grand Canyon University's Master of Science in Nursing with an Emphasis in Public Health Nursing program can be actively involved in the coordination, planning, development, implementation, and evaluation of health programs and services. The Master of Science in Nursing with an Emphasis in Public Health Nursing program is designed for nurses interested in disease prevention and community and population health. Public health professionals draw on knowledge and skills from a variety of disciplines to define, assess, and ultimately resolve public health problems and reduce health disparities. Students study theories, concepts, and principles of public health and their application. The curriculum, developed around the nursing core and national public health curriculum standards, uses a multidisciplinary approach that emphasizes psychological, behavioral, and social factors influencing population-based health disparities; principles of epidemiology and biostatistics; environmental public health concepts; public health administration systems and processes; and economic factors. It prepares students for an expanding range of professional opportunities and roles in public health and nursing. As part of the Master of Science in Nursing with an Emphasis in Public Health Nursing program, students complete an evidence-based practice project tailored to the student's area of specific interest. The program also culminates with a practicum experience through which students will learn to apply public health nursing concepts and skills in a public health setting. The Master of Science in Nursing with an Emphasis in Public Health Nursing program is designed to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Master's Education in Nursing.

Degree Requirements

NUR-513 ^Ω	Introduction to Advanced Registered Nursing	4 credits
NUR-514	Organizational Leadership and Informatics	4 credits
NUR-550 ^Ω	Translational Research and Population Health Management	4 credits
NUR-590 ^Ω	Evidence-Based Practice Project	4 credits
PHN-600	Foundations of Public Health Nursing	4 credits
PUB-540	Principles of Epidemiology	4 credits
PUB-550	Application and Interpretation of Public Health Data	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

PHN-652	Population-Based Interventions	4 credits
PUB-655	International Perspectives in Community Health	4 credits
PHN-690^Ω	Public Health Nursing Practicum	4 credits
Master of Science in Nursing with an Emphasis in Public Health Nursing		40 credits
Total Clinical/Practicum Hours		150 hours

Post-Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology Certificate

The Post-Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology Certificate program prepares experienced registered nurses to provide competent advanced practice nursing care in complex, acute, and critical care settings through an evidence-based program of study. Graduates are eligible for certification as Adult-Gerontology Acute Care Nurse Practitioners. The program combines courses in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of adult and geriatric acute care patients, subacute patients, complex patients, and/or patients with exacerbations of chronic illness. Clinical experiences emphasize the physiological and psychosocial impact of acute and critical illness on the patient, family, and community, and prepare the ACNP-AG in the diagnosis and management of acute and life-threatening health problems. This program includes 675 hours of directly supervised clinical practice with qualified preceptors and two separate on-campus experiences.

Degree Requirements

NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-635	Advanced Pharmacology	4 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits
ANP-635	Health Promotion and Maintenance and On-Campus Experience I	4 credits
ANP-635CE	ANP-635 On-Campus Experience I	0 credit
ANP-650	Adult-Gerontology Acute Care I	7 credits
ANP-652	Adult-Gerontology Acute Care II	7 credits
ANP-654	Adult-Gerontology Acute Care III and On-Campus Experience II	7 credits
ANP-654CE	ANP-654 On-Campus Experience II	0 credit
Post-Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology Certificate		37 credits
Total Clinical Hours		675 hours

Post-Master of Science in Nursing: Family Nurse Practitioner Certificate

The Post-Master of Science in Nursing: Family Nurse Practitioner Certificate program prepares the professional nurse for advanced practice as a primary care provider. The family nurse practitioner (FNP) makes independent critical judgments in all levels of prevention, including health promotion; illness prevention; and diagnosis and management for individuals, families, communities, and populations. The FNP performs

comprehensive health assessments, diagnoses illness, and prescribes pharmacologic and nonpharmacologic treatments to manage acute and chronic health problems to achieve quality cost-effective outcomes in a culturally sensitive context. The role of the nurse practitioner includes educating, consulting and collaborating, using research to make practice decisions, and influencing professional and public policies. Within various practice settings, the FNP provides health care for clients across the life span. This program includes 675 hours of directly supervised clinical practice with qualified preceptors and two separate on-campus experiences.

Degree Requirements

NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-635	Advanced Pharmacology	4 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits
FNP-630	Health Promotion and On-Campus Experience I	4 credits
FNP-630CE	FNP-630 On-Campus Experience I	0 credit
FNP-652	Family Primary Care I	7 credits
FNP-654	Family Primary Care II	7 credits
FNP-690	Practicum and On-Campus Experience II	7 credits
FNP-690CE	FNP-690 On-Campus Experience II	0 credit
Post-Master of Science in Nursing: Family Nurse Practitioner Certificate		37 credits
Total Clinical Hours		675 hours

Post-Master of Science in Nursing: Nursing Education Certificate

The Post-Master of Science in Nursing: Nursing Education Certificate prepares advanced professional nurses in the specialty of nursing education within the expanding educational needs of the nursing profession. Nurse educators practice in a variety of settings, including acute or chronic care settings, as staff educators or in a role responsible for planning, implementing, and evaluating continuing education programs. The advanced professional nurse educator will also be prepared to assume a faculty position in a traditional college of nursing or in a nontraditional program that relies on online technology as a teaching medium. Competencies of the professional practice nurse educator include assessing educational needs, planning programs to meet those needs, and evaluating program outcomes in the context of evidence-based practice models. The Post-Master of Science in Nursing: Nursing Education Certificate is designed to meet standards set by the American Association of Colleges of Nursing (AACN): The Essentials of Master's Education in Nursing and the National League for Nursing (NLN) Nurse Educator Core Competencies.

Degree Requirements

NUR-641E	Advanced Pathophysiology and Pharmacology for Nurse Educators	4 credits
NUR-643E	Advanced Health Assessment for Nurse Educators	4 credits
NUR-646E^Ω	Nursing Education Seminar I	4 credits
NUR-648E^Ω	Nursing Education Seminar II	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

NUR-665E^Ω Nursing Education Practicum	4 credits
Post-Master of Science in Nursing: Nursing Education Certificate	20 credits

Nursing: Doctoral Programs

Doctor of Nursing Practice

Grand Canyon University's Doctor of Nursing Practice program provides broad and in-depth preparation for advanced practice and leadership roles in nursing. The program expands on current theoretical and scientific foundations of health care practice, including the discipline knowledge base, the design and evaluation of clinical solutions, and clinical and organizational change leadership. The program prepares nurse leaders to design and implement evidence-based strategies for practice that improve health care delivery and patient outcomes. Emphasis will be placed on preparing graduates to practice from the foundation of our Christian heritage through an intentional focus on values and ethics.

Degree Requirements

DNP-801^Ω Introduction to DNP Studies	3 credits
DNP-805^Ω Health Care Informatics	3 credits
DNP-810^Ω Emerging Areas of Human Health	3 credits
DNP-815^Ω Scientific Underpinnings	3 credits
DNP-820^Ω Translational Research and Evidence-Based Practice	3 credits
DNP-825 Population Management	3 credits
DNP-830^Ω Data Analysis	3 credits
DNP-835^Ω Patient Outcomes and Sustainable Change	3 credits
DNP-840^Ω Leadership for Advanced Nursing Practice	3 credits
DNP-955^Ω DPI Project: Part I	3 credits
DNP-960^Ω DPI Project: Part II	3 credits
DNP-965^Ω DPI Project: Part III	3 credits
Doctor of Nursing Practice	36 credits
Total Practice Experience Hours	1000 hours

Doctor of Nursing Practice with an Emphasis in Educational Leadership

Grand Canyon University's Doctor of Nursing Practice with an Emphasis in Educational Leadership program provides broad and in-depth preparation for advanced practice and leadership roles in nursing and education. The program expands on current theoretical and scientific foundations of health care practice, including the discipline knowledge base, the design and evaluation of clinical solutions, and clinical and organizational change leadership. The program prepares nurse leaders to design and implement evidence-based strategies for practice that improve health care delivery, patient outcomes, and educational programs. Emphasis is placed on employing methods of curriculum design and development, applying teaching strategies, and designing assessments to evaluate teaching and learning outcomes to prepare advanced practice nurses, faculty, program directors, and deans to lead nursing education programs in academia or institutions. Graduates will be prepared to practice

from a foundation of the Christian heritage through an intentional focus on values and ethics.

Degree Requirements

DNP-801^Ω Introduction to DNP Studies	3 credits
DNP-805^Ω Health Care Informatics	3 credits
DNP-810^Ω Emerging Areas of Human Health	3 credits
DNP-815^Ω Scientific Underpinnings	3 credits
DNP-820^Ω Translational Research and Evidence-Based Practice	3 credits
DNP-825 Population Management	3 credits
DNP-830^Ω Data Analysis	3 credits
DNP-835^Ω Patient Outcomes and Sustainable Change	3 credits
DNP-836^Ω Facilitation of Learning in Nursing Education	3 credits
DNP-837^Ω Curriculum Design and Assessment	3 credits
DNP-838^Ω Nursing Program Development and Educational Leadership	3 credits
DNP-840^Ω Leadership for Advanced Nursing Practice	3 credits
DNP-955^Ω DPI Project: Part I	3 credits
DNP-960^Ω DPI Project: Part II	3 credits
DNP-965^Ω DPI Project: Part III	3 credits
Doctor of Nursing Practice with an Emphasis in Educational Leadership	45 credits
Total Practice Experience Hours	1000 hours

Health Care Professions: Undergraduate Programs

Bachelor of Science in Athletic Training

Athletic training, as defined by the National Athletic Trainer's Association, is practiced by athletic trainers, who are health care professionals who collaborate with physicians to optimize activity and participation of patients. Athletic training encompasses the prevention, diagnosis, and intervention of emergency, acute, and chronic medical conditions involving impairment, functional limitations, and disabilities. Students who want to become certified athletic trainers must earn a degree from an accredited athletic training program. Accredited programs include formal instruction in areas such as injury/illness prevention, first aid, and emergency care, assessment of injury/illness, human anatomy and physiology, therapeutic modalities, and nutrition. Classroom learning is enhanced through clinical education experiences. Certified athletic trainers (ATCs) are qualified to work in a variety of settings, including high schools, colleges and universities, professional sports, clinics, and other areas, as an integral part of the health care team. A minimum of 900 hours of clinical rotations on and off-campus must be completed before graduation. Students must provide their own transportation to clinical rotations.

Degree Requirements

Total General Education	34-40 credits
Total Athletic Training Major	80 credits
Total Electives	0-6 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Total Bachelor of Science in Athletic Training	120 credits
Athletic Training Preclinical Coursework	
BIO-201	Human Anatomy and Physiology I 3 credits
BIO-201L	Human Anatomy and Physiology I: Lab 1 credit
BIO-202	Human Anatomy and Physiology II 3 credits
BIO-202L	Human Anatomy and Physiology II-Lab 1 credit
Athletic Training Major	
ATP-214 ^Ω	Care, Treatment, and Prevention of Athletic Injuries 3 credits
ATP-214L ^Ω	Care, Treatment, and Prevention of Athletic Injuries Lab 1 credit
ATP-256 ^Ω	Health Promotion and Wellness Protection 4 credits
ATP-310 ^Ω	Injury Prevention and Wellness Clinical 4 credits
ATP-301 ^Ω	Recognition and Evaluation of Injuries I 3 credits
ATP-301L ^Ω	Recognition and Evaluation of Injuries I Lab 1 credit
ATP-315 ^Ω	Emergency Care for Acute Injuries 3 credits
ATP-315L ^Ω	Emergency Care for Acute Injuries Lab 1 credit
ATP-320 ^Ω	Emergency Care and Lower Extremity Evaluation Clinical 4 credits
ATP-322 ^Ω	Therapeutic Modalities 3 credits
ATP-322L ^Ω	Therapeutic Modalities Lab 1 credit
ATP-302 ^Ω	Recognition and Evaluation of Injuries II 3 credits
ATP-302L ^Ω	Recognition and Evaluation of Injuries II Lab 1 credit
ATP-330 ^Ω	Therapeutic Modalities and Upper Extremity Techniques Clinical 4 credits
ATP-360 ^Ω	Theory of Prescribing Exercise 3 credits
ATP-360L ^Ω	Theory of Prescribing Exercise Lab 1 credit
EXS-340 ^Ω	Physiology of Exercise 3 credits
EXS-340L ^Ω	Physiology of Exercise-Lab 1 credit
ATP-440 ^Ω	Therapeutic Interventions Clinical 4 credits
ATP-401 ^Ω	General Medical Conditions 3 credits
ATP-401L ^Ω	General Medical Conditions Lab 1 credit
EXS-335 ^Ω	Kinesiology 3 credits
EXS-335L ^Ω	Kinesiology Lab 1 credit
ATP-402 ^Ω	Pharmacology and Advanced Therapeutic Interventions 4 credits
ATP-450 ^Ω	General Medicine and Health Care Administration Clinical 4 credits
ATP-420 ^Ω	Health Care Administration in Athletic Training 4 credits
EXS-455 ^Ω	Advanced Principles of Sports Performance 3 credits
EXS-455L ^Ω	Advanced Principles of Sports Performance Lab 1 credit
ATP-480 ^Ω	Athletic Training Capstone 3 credits

ATP-485 ^Ω	Athletic Training Board of Certification Exam Preparation	1 credit
ATP-460 ^Ω	Advanced Athletic Training Clinical	4 credits
Athletic Training Major		80 credits

Bachelor of Science in Health Care Administration

The Bachelor of Science in Health Care Administration (BSHA) is an undergraduate professional degree designed to prepare students for entry-level supervisory roles in health care organizations. Ideal candidates for the BSHA program are those students looking for career entry in health care administration and those looking to advance from clinical/technical roles to supervisory roles. The BSHA program emphasizes both the conceptual and analytical skills required to manage in contemporary health care organizations. Graduates prepare themselves for administrative positions in hospitals, long-term care, outpatient facilities, physician offices, mental health organizations, insurance companies, public health agencies, and other types of health organizations. The BSHA program also prepares students who wish to eventually seek their master's degree in order to obtain senior health care executive positions.

The BSHA program features investigative and experimental opportunities in project management, teamwork, and leadership. Students of this program will have the opportunity to gain an in-depth understanding of the following:

- The organization and structure of components of the health care sector to permit development and implementation of successful management strategies within the industry.
- The managerial skills needed to work in teams, build cross-functional teams, and facilitate collaborative decision making.
- The industry-specific business knowledge and skills related to finance management, human resources, strategic planning, marketing, information management, and quality improvement.
- The impact that various dynamics (e.g., regulatory, legal, ethical, public policy, and political) can have on health service organizations and the management or administration of any specific sector of the health care industry.
- The manner in which public, private, and social forces can shape the health care system and affect health care providers.
- The financial options and strategies within and between component sectors of the health care industry.

Degree Requirements

Total General Education	34-40 credits
Total Health Care Administration Major	56 credits
Total Electives	24-30 credits
Total Bachelor of Science in Health Care Administration	120 credits

Health Care Administration Major

HLT-205	Health Care Systems and Transcultural Health Care	4 credits
HCA-255	Health Policy and Economic Analysis	4 credits
HCA-240	Health Care Accounting and Billing	4 credits
HLT-305	Legal and Ethical Principles in Health Care	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

HLT-302^Δ	Spirituality and Christian Values in Health Care and Wellness	4 credits
HCA-360	Health Information Technology and Management	4 credits
HCA-450	Quality in Health Care	4 credits
HCA-455^Δ	Organizational Behavior and Leadership in Health Care	4 credits
HCA-460	Operations and Risk Management in Health Care	4 credits
HCA-465	Health Care Administration and Management	4 credits
MAT-274	Probability and Statistics	4 credits
HLT-364^Δ	Research and Communication Techniques in Health Care and Science	4 credits
HCA-470^Δ	Strategic Planning and Implementation in Health Care	4 credits
HLT-494^Δ	Professional Capstone Project	4 credits
Health Care Administration Major		56 credits

Bachelor of Science in Health Science: Professional Development and Advanced Patient Care

The Bachelor of Science in Health Sciences: Professional Development and Advanced Patient Care program is a degree completion program designed for health care professionals, whose primary job duty involves direct patient interaction related to health assessment or treatment, to acquire baccalaureate level competencies in health sciences theory and health care professional issues.

Degree Requirements

Total General Education	34-40 credits
Health Science: Professional Development and Advanced Patient Care Major	36 credits
Total Electives	44-50 credits
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Total Bachelor of Science in Health Sciences: Professional Development and Advanced Patient Care	120 credits

Health Science: Professional Development and Advanced Patient Care Major

HLT-307V	Professional Dynamics and Allied Health Professions	3 credits
HLT-308V	Risk Management and Health Care Regulations	3 credits
HLT-313V	Safety, Quality, and Interdisciplinary Approaches to Care	3 credits
HLT-362V	Applied Statistics for Health Care Professionals	3 credits
HLT-324V	Transcultural Health Care	3 credits
HLT-310V^Δ	Spirituality in Health Care	3 credits
HLT-418V	Trends and Issues in Health Care	3 credits
HLT-314V	Health Care Systems	3 credits
HLT-312V	Ethics for Health Care Professionals	3 credits

HLT-317V^Δ	Communication and Application of Research in Practice	3 credits
AMP-450V	Leadership and Vocation	3 credits
HLT-490V^{ΔΩ}	Professional Capstone Project	3 credits
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Professional Development and Advanced Patient Care Major		36 credits

This GCU degree is included in the Air University Associate Baccalaureate Cooperative (AU-ABC) partnership which offers baccalaureate degree opportunities to Community College of the Air Force graduates.

Bachelor of Science in Health Sciences

The Bachelor of Science in Health Sciences program is a degree completion program designed for health care professionals, whose primary job duty involves direct patient interaction related to health assessment or treatment, to acquire baccalaureate-level competencies in health sciences theory and issues related to health care professionals.

Degree Requirements

Total General Education	34-40 credits
Health Sciences Major	36 credits
Total Electives	44-50 credits
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Total Bachelor of Science in Health Sciences	120 credits

Health Sciences Major

HLT-307V	Professional Dynamics and Allied Health Professions	3 credits
HLT-308V	Risk Management and Health Care Regulations	3 credits
HLT-313V	Safety, Quality, and Interdisciplinary Approaches to Care	3 credits
HLT-362V	Applied Statistics for Health Care Professionals	3 credits
HLT-324V	Transcultural Health Care	3 credits
PHI-413V	Ethical and Spiritual Decision Making in Health Care	3 credits
HLT-418V	Trends and Issues in Health Care	3 credits
HLT-314V	Health Care Systems	3 credits
HLT-312V	Ethics for Health Care Professionals	3 credits
HLT-317V^Δ	Communication and Application of Research in Practice	3 credits
AMP-450V	Leadership and Vocation	3 credits
HLT-490V^{ΔΩ}	Professional Capstone Project	3 credits
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Health Sciences Major		36 credits

Bachelor of Science in Health Information Management

The Bachelor of Science in Health Information Management program prepares students to assume administrative positions in health data management, information policy, information systems integration, quality improvement, medical record processing, and

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

operations management. The health information management sector of health care provides the knowledge, resources, and tools needed to advance professional standards and professional practice to ensure the delivery of quality health care.

Degree Requirements

Total General Education	34-40 credits
Health Information Management Major	78 credits
Total Electives	2-8 credits
Total Bachelor of Science in Health Information Management	120 credits

Health Information Management Major

BIO-191	Applied Anatomy and Physiology I	3 credits
BIO-191L	Applied Anatomy and Physiology I Lab	1 credit
BIO-192	Applied Anatomy and Physiology II	3 credits
BIO-192L	Applied Anatomy and Physiology II Lab	1 credit
MAT-274	Probability and Statistics	4 credits
BIO-335	Medical Terminology	2 credits
BIO-330	Pathophysiology and Pharmacology	4 credits
CST-111	Introduction to Computer Science and Information Technology	4 credits
HIM-200^f	Principles and Practices of Health Information Management	4 credits
HIM-310	Clinical Data Classification	4 credits
HIM-350	Classification of Diagnostic Data	4 credits
HIM-355	Classification of Procedural Data	4 credits
SYM-400	Introduction to Database Structures	4 credits
HLT-364	Research and Communication Techniques in Health Care and Science	4 credits
HIM-370^f	Health Care Information Systems	4 credits
BIT-430	Introduction to Business Analytics	4 credits
HIM-415	Clinical Data Management	4 credits
HIM-452	Quality Management in Health Care	4 credits
HIM-430	Data Governance	4 credits
HIM-425	Principles of Health Care Administration and Leadership	4 credits
MGT-434	Human Resources	4 credits
HIM-490^Ω	Health Information Management Capstone	4 credits
Health Information Management Major		78 credits

Bachelor of Science in Public Health

Grand Canyon University's Bachelor of Science in Public Health program prepares students to work as public health practitioners in various health-related settings, including community-based

organizations, government agencies, behavioral health agencies, primary care centers, and global or domestic nonprofit organizations. Public health practitioners focus on the prevention of communicable diseases, health education and promotion, and reducing the impact of environmental hazards. The discipline of public health provides the knowledge, resources, and tools needed to design and implement effective health promotion programs, including health education and policies for specific populations within the larger community. The Bachelor of Science in Public Health program also integrates the National Commission for Health Education Credentialing (NCHEC) Seven Areas of Responsibility for Health Education Specialists, addressing fundamental skills in community assessment, program planning, and program implementation and evaluation.

Degree Requirements

Total General Education	34-40 credits
Public Health Major	56 credits
Total Electives	24-30 credits
Total Bachelor of Science in Public Health	120 credits

Public Health Major

COM-222	Small Group Communication	4 credits
BIO-130	Introduction to Life Sciences I	4 credits
PUB-200	Health Promotion and Disease Prevention	4 credits
PUB-240	Environmental and Occupational Health and Safety	4 credits
PSY-380	Introduction to Probability and Statistics	4 credits
PSY-352	Health Psychology	4 credits
PUB-360	Community Assessment and Planning	4 credits
PUB-380	Epidemiological Research Design and Methods	4 credits
PUB-390	Foundations in Global Health Practice	4 credits
PUB-410	Implementation and Evaluation of Public Health Interventions	4 credits
PUB-430	Public Health Data Systems and Informatics	4 credits
PUB-450	Public Health Policy and Financing	4 credits
PUB-480	Ethical Practice in Public Health	4 credits
PUB-490^Ω	Public Health Capstone Project	4 credits
Public Health Major		56 credits

Health Care Professions: Graduate Programs

Master of Public Health

Public health is a multidisciplinary and collaborative field of study integrating the biological, social, psychological, anthropological, political, and environmental sciences to improve health outcomes among populations. There is a high demand for trained public health professionals as a result of the increased prevalence of chronic diseases, emerging and re-emerging

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

infectious diseases, environmental health concerns, trends toward population health management in health care, health care reform, and global health concerns. Grand Canyon University's (GCU) Master of Public Health (MPH) program prepares graduates to apply public health theories to relevant and emerging health issues in order to develop, implement, lead, and evaluate health promotion and disease prevention programs through collaborative partnerships. The program prepares students for leadership positions in state and local health departments, international government agencies, nonprofit organizations, health policy and planning organizations, health care organizations, universities, community-based education programs, and faith-based ministries addressing public health issues. The curriculum combines core subject areas like epidemiology, environmental health, quantitative analysis and interpretation, health policy, social and behavioral factors, planning, and evaluation with unique applications to community engagement and health ministry. The program culminates with a practicum and capstone project that students are able to design based on their professional interest area. The GCU MPH program is unique because the program focuses on integrating Christian values, servant leadership, and community engagement throughout the program.

Degree Requirements

<u>UNV-506^Ω</u>	Introduction to Graduate Studies in the Health Care Professions	2 credits
<u>PUB-510</u>	Foundations of Public Health	2 credits
<u>PUB-520</u>	Social and Behavioral Principles of Public Health	4 credits
<u>PUB-540</u>	Principles of Epidemiology	4 credits
<u>PUB-550</u>	Application and Interpretation of Public Health Data	4 credits
<u>PUB-560</u>	Environmental Impacts on Health	4 credits
<u>PUB-610</u>	Communication for Behavior Change	4 credits
<u>PUB-620</u>	Planning and Evaluation in Public Health	4 credits
<u>PUB-650</u>	Public Health Advocacy and Policy	4 credits
<u>PUB-655</u>	International Perspectives in Community Health	4 credits
<u>PUB-660</u>	Leadership and Management in Public Health	4 credits
<u>PUB-680</u>^Ω	Public Health Practicum	4 credits
<u>PUB-690</u>^Ω	Public Health Capstone	4 credits
Master of Public Health		48 credits

Master of Science in Health Care Administration

The Master of Science in Health Care Administration (MSHCA) provides the skills and experience necessary to perform as middle- and upper-level managers in a variety of health care organizations, and to serve as innovative change agents and leaders of organizational improvement and adaptation within the health care industry. The MSHCA program emphasizes the conceptual, analytical, and application skills required to manage in contemporary health care organizations. Graduates prepare themselves for administrative positions in hospitals, long-term care facilities, outpatient facilities, physician offices, mental health agencies, insurance companies, public health agencies, and other types of health organizations.

Degree Requirements

<u>UNV-504^Ω</u>	Introduction to Graduate Studies in the College of Business	2 credits
<u>HCA-515</u>	Analysis of Contemporary Health Care Delivery Models	4 credits
<u>HCA-530</u>	Health Care Policies and Economics	4 credits
<u>HLT-520</u>	Legal and Ethical Principles in Health Care	4 credits
<u>HLT-540</u>	Health Care Research Methods, Analysis, and Utilization	4 credits
<u>HCA-545</u>	Organizational Structure, Dynamics, and Effectiveness	4 credits
<u>HCA-615</u>	Human Resource Management and Marketing Communication Strategies	4 credits
<u>LDR-600</u>	Leadership Styles and Development	4 credits
<u>HCA-610</u>	Essential Health Care Business Analyses	4 credits
<u>HLT-610</u>	Networking and Professional Readiness	2 credits
<u>HCA-620</u>	Business/Project Plan Evaluation and Development	4 credits
<u>HCA-675</u>	Health Care Innovation	4 credits
<u>HCA-699^Ω</u>	Evidence-Based Research Project	4 credits
Master of Science in Health Care Administration		48 credits

Master of Science in Health Care Informatics

Health care informatics is a rapidly emerging discipline that offers new frontiers requiring innovative leadership. As health care reform begins to impact all areas of the health care system, greater attention is being focused on the value of health informatics in reducing health care costs, increasing access, and improving the quality of health care services. Health care informatics is quickly becoming vital to the growth and security of the United States' health care system. The integration of information technology into health care and the continuous changes in patient-care systems require professionals and leaders with training in clinical operations, data management systems, health care system operations, project management, decision making, and quality assessment.

Graduates may perform a variety of functions for the organization, such as automating clinical care, building new operational data systems, training health care workers in the use of computer systems, collecting and analyzing data to improve patient care, etc. Depending on their areas of strength and focus, graduates may serve as project managers, project designers, researchers, systems analysts, or administrators and executives at all levels of the organization. Graduates may work in a variety of settings, including hospitals, primary care facilities, doctors' offices, insurance companies, pharmacies, technology suppliers, consulting firms, and more. Organizations of potential employment include the Centers for Disease Control and Prevention; National Institutes of Health; clinical data exchange insurance sites; the government's Military Health System (hospitals); Centers for Medicare & Medicaid Services; state health care; and informational technology vendors.

Degree Requirements

<u>UNV-504^Ω</u>	Introduction to Graduate Studies in the College of Business	2 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

HCA-515	Analysis of Contemporary Health Care Delivery Models	4 credits
HCA-530	Health Care Policies and Economics	4 credits
HLT-520	Legal and Ethical Principles in Health Care	4 credits
HLT-540	Health Care Research Methods, Analysis, and Utilization	4 credits
HIM-515	Foundations and Concepts of Health Care Informatics	4 credits
HIM-615	Health Care Information Systems and Technology	4 credits
HIM-650	Health Care Data Management	4 credits
HCA-610	Essential Health Care Business Analyses	4 credits
HLT-610	Networking and Professional Readiness	2 credits
HCA-620	Business/Project Plan Evaluation and Development	4 credits
HCA-675	Health Care Innovation	4 credits
HCA-699^Ω	Evidence-Based Research Project	4 credits
Master of Science in Health Care Informatics		48 credits

Master of Science in Health Informatics

Grand Canyon University's Master of Science in Health Informatics program prepares graduates for a variety of positions focused on integrating information technology into health care for the purposes of improving patient safety, satisfaction, and quality of health care services while reducing costs. Continuous changes in patient-care systems require professionals and leaders with training in clinical operations, data management systems, health care system operations, project management, decision making, and quality assessment. Graduates may perform a variety of functions within health care organizations, such as automating clinical care, building new operational data systems, training health care workers in the use of computer systems, and collecting and analyzing data to improve patient care. Depending on their areas of strength and focus, graduates may serve as informaticists, project managers, researchers, systems analysts, data analysts, or administrators and executives at all levels of the organization. Graduates may work in a variety of settings, including hospitals, primary care facilities, doctors' offices, insurance companies, pharmacies, technology vendors, consulting firms, or governmental agencies.

Degree Requirements

UNV-506^Ω	Introduction to Graduate Studies in the Health Care Professions	2 credits
SYM-506	Applied Business Probability and Statistics	4 credits
HCI-600	Foundations of Informatics	4 credits
HIM-615	Health Care Information Systems and Technology	4 credits
HIM-650	Health Care Data Management	4 credits
HCI-655	Electronic Health Records	4 credits
HCI-660	Health Data Analytics	4 credits
HCI-665	Health Information Systems Security	4 credits
HCI-670	User Interface Design for Informatics	4 credits
HCA-680	Leadership in Health Care	4 credits
HCI-690^Ω	Health Informatics Applied Project and Practicum	4 credits
Master of Science in Health Informatics		42 credits

Graduate Certificate of Completion in Health care Quality and Patient Safety

The Graduate Certificate of Completion in Health Care Quality and Patient Safety is designed for health care professionals seeking to acquire specific knowledge and skills in the areas of health care quality and patient safety. Courses in the certificate focus on nationally recognized expectations and metrics for quality, approaches to support quality improvement measures, and technologies that support clinical decision-making for patient safety.

Degree Requirements

HCA-540	Health Care Research Methods, Analysis, and Utilization	4 credits
HQS-610	Foundations of Quality Improvement and Patient Safety	4 credits
HQS-620	Project Management in Health Care	4 credits
HQS-630	Implementation and Change Management	4 credits
Graduate Certificate of Completion in Health Care Quality and Patient Safety		16 credits

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

The College of Theology

College Description

Christian Studies programs are designed to equip students with an understanding of the Bible and its historical and theological significance for the Christian faith, to prepare them for ministry, and to provide them with spiritual guidance. Students are equipped, as well, to relate to diverse other religions in global culture. The faculty is committed to helping students formulate their call to ministry by exploring the various directions that a call may take, and by helping students develop character and integrity in all aspects of life.

College Mission

Grand Canyon University's College of Theology, in keeping with its commitment to the authority of the Bible as Scripture and the centrality of Jesus Christ, exists to resource, educate and equip students in theological scholarship, ethical integrity, effective leadership, and ministry in service to God, the Church, the academy, and the world.

Christian Studies: Undergraduate Programs

Bachelor of Arts in Christian Ministry

Grand Canyon University's Bachelor of Arts in Christian Ministry prepares students for pastoral leadership in the local church and other Christian ministries. This practically-oriented program is designed to equip students with the broad understandings and skills needed for faithful, Christian ministry. Graduates of this program will possess basic biblical and theological knowledge, understand the dynamics of pastoral leadership, develop Christian character, and acquire the skills needed for effective ministry. The core of this pre-seminary curriculum provides a well-rounded theological education with emphasis on personal and professional formation and the development of ministerial abilities. Coursework in biblical, theological, and historical studies is combined with practical courses in leadership, spiritual formation, communication, and ministry. Students learn how to apply biblical and theological truth personally and practically to life and ministry contexts. Ministry internships provide additional opportunities for students to connect sound doctrine and practical ministry experience within the context of local churches and ministries.

Degree Requirements

Total General Education	34-40 credits
Total Christian Ministry Major	56 credits
Total Electives	24-30 credits
Total Bachelor of Arts in Christian Ministry	120 credits

Christian Ministry Major

BIB-106	Old Testament Survey	4 credits
MIN-104 ^Ω	Pastoral Identity Lab	1 credit
BIB-107	New Testament Survey	4 credits
MIN-114 ^Ω	Spiritual Formation Lab	1 credit
BIB-355 ^Δ	Biblical Interpretation and Application	4 credits
HTH-201	Christian Theology I	4 credits
MIN-204 ^Ω	Relational Skills Lab	1 credit
BIB-350	Pentateuch	4 credits

HTH-202	Christian Theology II	4 credits
MIN-214 ^Ω	Ministry Skills Lab	1 credit
BIB-360	Gospels and Acts	4 credits
MIN-320	Christian Character Formation	4 credits
HTH-330 ^Δ	Christian Ethics	4 credits
MIN-494 ^Ω	Ministry Internship	4 credits
HTH-475	Applied Theology	4 credits
MIN-480	Pastoral Leadership	4 credits
MIN-430 [‡]	Ministerial Communication	4 credits

Christian Ministry Major	56 credits
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Bachelor of Arts in Christian Studies

The Bachelor of Arts in Christian Studies is designed to prepare students for careers in ministry within the church, on the mission field, or within Christian organizations. Graduates of this program will possess a strong foundation of biblical and theological knowledge, will develop spiritually and professionally, and will gain communication and leadership skills necessary for effective ministry.

The core of the Bachelor of Arts in Christian Studies program is designed to offer a well-rounded theological education and to equip students with the basic knowledge and skills required for faithful ministry. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian environments.

Degree Requirements

Total General Education	34-40 credits
Total Christian Studies Major	48 credits
Total Electives	32-38 credits
Total Bachelor of Arts in Christian Studies	120 credits

Christian Studies Major

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
BIB-355 ^Δ	Biblical Interpretation and Application	4 credits
HTH-202	Christian Theology II	4 credits
BIB-350	Pentateuch	4 credits
MIN-320	Christian Character Formation	4 credits
INT-310 ^{ΔΔ}	Christianity in a Global Context	4 credits
BIB-360	Gospels and Acts	4 credits
MIN-430 [‡]	Ministerial Communication	4 credits

^Δ Writing intensive course | ^Δ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

HTH-350 ^f	Survey of Historical Theology	4 credits
HTH-330 ^{Af}	Christian Ethics	4 credits
Christian Studies Major		48 credits

Bachelor of Arts in Christian Studies with an Emphasis in Biblical Studies

The Bachelor of Arts in Christian Studies is designed to prepare students for careers in ministry within the church, on the mission field, or within Christian organizations. Graduates of this program will possess a strong foundation of biblical and theological knowledge, will develop spiritually and professionally, and will gain communication and leadership skills necessary for effective ministry.

The core of the Bachelor of Arts in Christian Studies program is designed to offer a well-rounded theological education and to equip students with the basic knowledge and skills required for faithful ministry. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian environments.

Graduates of the Bachelor of Arts in Christian Studies with an Emphasis in Biblical Studies program are prepared for a variety of ministerial and leadership positions that require a depth of knowledge about the content of Scripture and the ability to communicate biblical teaching effectively. Coursework focuses on the study of the books and major divisions of the Bible, from the Genesis to Revelation, for the sake of teaching the Bible to a variety of audiences including student groups and congregations. This program of study is designed to equip students with the competencies necessary for service as faithful teachers, preachers, and Christian leaders in churches and Christian institutions.

Degree Requirements

Total General Education	34-40 credits
Total Christian Studies with an Emphasis in Biblical Studies Major	64 credits
Total Electives	16-22 credits
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Total Bachelor of Arts in Christian Studies with an Emphasis in Biblical Studies	120 credits

Christian Studies with an Emphasis in Biblical Studies Major

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
BIB-355 ^A	Biblical Interpretation and Application	4 credits
HTH-202	Christian Theology II	4 credits
BIB-350	Pentateuch	4 credits
MIN-320	Christian Character Formation	4 credits
INT-310 ^{fA}	Christianity in a Global Context	4 credits
BIB-360	Gospels and Acts	4 credits
MIN-430 ^f	Ministerial Communication	4 credits
HTH-350 ^f	Survey of Historical Theology	4 credits
HTH-330 ^{Af}	Christian Ethics	4 credits
BIB-370	Hebrew Poetical and Wisdom Literature	4 credits

BIB-455	Hebrew Prophets	4 credits
BIB-380	Pauline Epistles	4 credits
BIB-465	General Epistles	4 credits

Christian Studies with an Emphasis in Biblical Studies Major	64 credits
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Bachelor of Arts in Christian Studies with an Emphasis in Global Ministry

The Bachelor of Arts in Christian Studies is designed to prepare students for careers in ministry within the church, on the mission field, or within Christian organizations. Graduates of this program will possess a strong foundation of biblical and theological knowledge, will develop spiritually and professionally, and will gain communication and leadership skills necessary for effective ministry.

The core of the Bachelor of Arts in Christian Studies program is designed to offer a well-rounded theological education and to equip students with the basic knowledge and skills required for faithful ministry. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian environments.

Graduates of the Bachelor of Arts in Christian Studies with an Emphasis in Global Ministry program are prepared for cross-cultural ministry in a variety of national and international contexts. Coursework for this emphasis introduces students to cross-cultural studies and provides them with the skills required for a contextualized gospel ministry. Students are equipped with biblical and theological foundations for mission work, an understanding of missions from a historical perspective, and the skills needed for effective communication of the gospel across cultures. This program of study is designed to equip students with competencies necessary for service as effective ministers and missions leaders in churches and mission agencies, in North American and international settings.

Degree Requirements

Total General Education	34-40 credits
Total Christian Studies with an Emphasis in Global Ministry Major	64 credits
Total Electives	16-22 credits
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Total Bachelor of Arts in Christian Studies with an Emphasis in Global Ministry	120 credits

Christian Studies with an Emphasis in Global Ministry Major

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
INT-244	World Religions	4 credits
HTH-201	Christian Theology I	4 credits
HTH-202	Christian Theology II	4 credits
BIB-355 ^A	Biblical Interpretation and Application	4 credits
BIB-350	Pentateuch	4 credits
INT-320	Evangelism and Discipleship	4 credits
MIN-320	Christian Character Formation	4 credits
INT-310 ^{fA}	Christianity in a Global Context	4 credits

^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

BIB-360	Gospels and Acts	4 credits
INT-450	Anthropology for Cross-Cultural Ministry	4 credits
MIN-430 [‡]	Ministerial Communication	4 credits
HTH-350 [‡]	Survey of Historical Theology	4 credits
HTH-330 ^Δ	Christian Ethics	4 credits
INT-460	Christianity and Culture	4 credits

Christian Studies with and Emphasis in Global Ministry Major 64 credits

Bachelor of Arts in Christian Studies with an Emphasis in Philosophy

The Bachelor of Arts in Christian Studies is designed to prepare students for careers in ministry within the church, on the mission field, or within Christian organizations. Graduates of this program will possess a strong foundation of biblical and theological knowledge, will develop spiritually and professionally, and will gain communication and leadership skills necessary for effective ministry.

The core of the Bachelor of Arts in Christian Studies program is designed to offer a well-rounded theological education and to equip students with the basic knowledge and skills required for faithful ministry. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian environments.

Graduates of the Bachelor of Arts in Christian Studies with an Emphasis in Philosophy program are equipped for ministry that requires ethical and ideological engagement in the public arena and are prepared for further study at the graduate level in preparation for a career in the church or academy. Coursework for this emphasis introduces students to philosophical studies in key areas including knowledge and reality, ethics, and philosophy of religion. Students are trained to analyze and assess ideas and ethical systems and express their understandings effectively to others. This program of study is designed to provide students with competencies necessary for service as effective ministers who are capable of engaging the public square and leading others to do the same.

Degree Requirements

Total General Education	34-40 credits
Total Christian Studies with an Emphasis in Philosophy Major	64 credits
Total Electives	16-22 credits
Total Bachelor of Arts in Christian Studies with an Emphasis in Philosophy	120 credits

Christian Studies with an Emphasis in Philosophy Major

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
PHI-103	Introduction to Philosophy and Ethics	4 credits
HTH-201	Christian Theology I	4 credits
HTH-202	Christian Theology II	4 credits
BIB-355 ^Δ	Biblical Interpretation and Application	4 credits
BIB-350	Pentateuch	4 credits

PHI-301	Knowledge and Reality	4 credits
MIN-320	Christian Character Formation	4 credits
INT-310 ^Δ	Christianity in a Global Context	4 credits
BIB-360	Gospels and Acts	4 credits
PHI-307	Applied Ethics	4 credits
MIN-430 [‡]	Ministerial Communication	4 credits
HTH-350 [‡]	Survey of Historical Theology	4 credits
HTH-330 ^Δ	Christian Ethics	4 credits
PHI-403	Philosophy of Religion	4 credits

Christian Studies with and Emphasis in Philosophy Major 64 credits

Bachelor of Arts in Christian Studies with an Emphasis in Worship Leadership

The Bachelor of Arts in Christian Studies is designed to prepare students for careers in ministry within the church, on the mission field, or within Christian organizations. Graduates of this program will possess a strong foundation of biblical and theological knowledge, will develop spiritually and professionally, and will gain communication and leadership skills necessary for effective ministry.

The core of the Bachelor of Arts in Christian Studies program is designed to offer a well-rounded theological education and to equip students with the basic knowledge and skills required for faithful ministry. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian environments.

Graduates of the Bachelor of Arts in Christian Studies with an Emphasis in Worship Leadership program are prepared for careers in worship ministry. Coursework emphasizes a biblical theology of worship and an exploration of various historical and contemporary approaches to worship while developing character and leadership skills for a faithful and fruitful worship ministry. This program of study is designed to equip students with competencies necessary for service as effective worship leaders within the church and other Christian worship environments.

Degree Requirements

Total General Education	34-40 credits
Total Christian Studies with an Emphasis in Worship Leadership Major	64 credits
Total Electives	16-22 credits
Total Bachelor of Arts in Christian Studies with an Emphasis in Worship Leadership	120 credits

Christian Studies with an Emphasis in Worship Leadership Major

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
BIB-355 ^Δ	Biblical Interpretation and Application	4 credits
HTH-202	Christian Theology II	4 credits
BIB-350	Pentateuch	4 credits
MIN-320	Christian Character Formation	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

INT-310 ^Δ	Christianity in a Global Context	4 credits
BIB-360	Gospels and Acts	4 credits
MIN-430 ^Δ	Ministerial Communication	4 credits
HTH-350 ^Δ	Survey of Historical Theology	4 credits
HTH-330 ^Δ	Christian Ethics	4 credits
WSA-322 ^Δ	Theology of Worship	4 credits
WSA-321	Psalms, Hymns, and Spiritual Songs	4 credits
WSA-423	Worship Leadership	4 credits
WSA-424 ^Δ	Christian Worldview and Media	4 credits
Christian Studies with an Emphasis in Worship Leadership Major		64 credits

Bachelor of Arts in Christian Studies with an Emphasis in Worship Leadership *Effective August 2020*

The Bachelor of Arts in Christian Studies is designed to prepare students for careers in ministry within the church, on the mission field, or within Christian organizations. Graduates of this program will possess a strong foundation of biblical and theological knowledge, will develop spiritually and professionally, and will gain communication and leadership skills necessary for effective ministry. The core of the Bachelor of Arts in Christian Studies program is designed to offer a well-rounded theological education and to equip students with the basic knowledge and skills required for faithful ministry. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian environments. Graduates of the Bachelor of Arts in Christian Studies with an Emphasis in Worship Leadership program are prepared for careers in worship ministry. Coursework emphasizes a biblical theology of worship and an exploration of various historical and contemporary approaches to worship while developing character and leadership skills for a faithful and fruitful worship ministry. This program of study is designed to equip students with competencies necessary for service as effective worship leaders within the church and other Christian worship environments.

Degree Requirements

Total General Education	34-40 credits
Total Christian Studies with an Emphasis in Worship Leadership Major	64 credits
Total Electives	16-22 credits
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Total Bachelor of Arts in Christian Studies with an Emphasis in Worship Leadership	120 credits

Christian Studies with an Emphasis in Worship Leadership Major

BIB-106	Old Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
BIB-107	New Testament Survey	4 credits
MIN-320	Christian Character Formation	4 credits
HTH-202	Christian Theology II	4 credits
BIB-355 ^Δ	Biblical Interpretation and Application	4 credits
HTH-330 ^Δ	Christian Ethics	4 credits

BIB-350	Pentateuch	4 credits
BIB-360	Gospels and Acts	4 credits
HTH-350 ^Δ	Survey of Historical Theology	4 credits
MIN-480	Pastoral Leadership	4 credits
INT-310 ^Δ	Christianity in a Global Context	4 credits
WSA-424 ^Δ	Christian Worldview and Media	4 credits
WSA-322 ^Δ	Theology of Worship	4 credits
WSA-423	Worship Leadership	4 credits
MIN-430 ^Δ	Ministerial Communication	4 credits
Christian Studies with an Emphasis in Worship Leadership Major		64 credits

Bachelor of Arts in Christian Studies with an Emphasis in Youth Ministry

The Bachelor of Arts in Christian Studies is designed to prepare students for careers in ministry within the church, on the mission field, or within Christian organizations. Graduates of this program will possess a strong foundation of biblical and theological knowledge, will develop spiritually and professionally, and will gain communication and leadership skills necessary for effective ministry.

The core of the Bachelor of Arts in Christian Studies program is designed to offer a well-rounded theological education and to equip students with the basic knowledge and skills required for faithful ministry. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian environments.

Graduates of the Bachelor of Arts in Christian Studies with an Emphasis in Youth Ministry program are prepared for a variety of ministerial and leadership positions that require a solid biblical and theological foundation as well as skills related to ministerial leadership and ministry. Coursework in this program explores effective ways to lead students to Christ in their formative years, develops abilities to recognize times of crisis in the lives of young people, and cultivates skills for providing guidance and help as needed. This program of study is suited to students who have a passion for serving and would like to help youth develop their relationship with Jesus Christ and fulfill their calling to minister to young men and women in churches, high school programs, parachurch ministries, and other Christian organizations.

Degree Requirements

Total General Education	34-40 credits
Total Christian Studies with an Emphasis in Youth Ministry Major	64 credits
Total Electives	16-22 credits
<hr/>	
Total Bachelor of Arts in Christian Studies with an Emphasis in Youth Ministry	120 credits

Christian Studies with an Emphasis in Youth Ministry Major

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
BIB-355 ^Δ	Biblical Interpretation and Application	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

HTH-202	Christian Theology II	4 credits
BIB-350	Pentateuch	4 credits
MIN-320	Christian Character Formation	4 credits
INT-310 ^Δ	Christianity in a Global Context	4 credits
BIB-360	Gospels and Acts	4 credits
MIN-430 ^Δ	Ministerial Communication	4 credits
HTH-350 ^Δ	Survey of Historical Theology	4 credits
HTH-330 ^Δ	Christian Ethics	4 credits
YMN-305	Philosophy and Theology of Youth Ministry	4 credits
YMN-355	Adolescent Development and Faith Formation	4 credits
YMN-455	Adolescent Issues and Intervention	4 credits
YMN-350	Leadership and Administration in Youth Ministry	4 credits
Christian Studies with an Emphasis in Youth Ministry Major		64 credits

Worship Arts: Undergraduate Programs

The Bachelor of Arts in Worship Arts is a 120-credit-hour degree designed to prepare students for careers in contemporary worship ministry and the Christian music industry. Worship Arts refers not only to worship leadership within local churches but, more broadly, to performance, visual media, production, and the business aspects of the contemporary Christian music industry. Students who graduate from this program will possess a strong foundation of biblical and theological knowledge and will be skilled in worship leadership, musical performance, production, and business management.

The core of the worship arts program is designed to offer a well-rounded theological education and to equip students with basic knowledge and skills in the areas of vocal and instrumental performance, production (lighting, digital film, sound systems, and recording), management and marketing, and worship leadership. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian worship environments.

Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry

The Bachelor of Arts in Worship Arts is designed to prepare students for careers in worship leadership, ministry, technical direction, and production. Worship Arts refers not only to worship leadership within local churches but, more broadly, to songwriting, performance, media, production, and technical direction. The core of the Worship Arts program is designed to offer a well-rounded theological education and to equip students with basic knowledge and skills in the areas of worship leadership, performance, lighting, media, and sound production. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian worship environments. Students who graduate from this program will possess a strong foundation of biblical and theological knowledge and will be skilled in worship leadership, ministry, production, and the technical aspects of worship arts. In addition to the core,

students will choose an emphasis in either Worship Ministry or Media and Production Ministry depending on their desired area of specialization. Emphasis in Media and Production Ministry Graduates of the Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry are prepared to provide vital leadership and creative direction for worship services through media, audio/visual production, and technical direction. This degree emphasizes ministerial leadership in the areas of technical ability, artistic excellence, and production. Upon completion of the program, students will possess a strong foundation of biblical and theological knowledge and will be prepared to lead in the areas of media and production ministry. Coursework emphasizes media and production ministry for contemporary worship, sound recording and reinforcement, and audio/visual production. Students study lighting design, technical direction, media preparation and presentation, sound and lighting enhancements, and stage and set design while learning to coordinate instrumentalists, vocalists, and audio/visual teams. Significant emphasis is placed on project management, team building, and effective leadership. A capstone internship provides learners with diverse opportunities to apply their knowledge and continue to develop their worship arts skills under the supervision of experienced worship pastors in local ministry settings.

Degree Requirements

Total General Education	34-40 credits
Total Worship Arts with an Emphasis in Media and Production Ministry Major	66 credits
Total Electives	14-20 credits
Total Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry	120 credits

Worship Arts with an Emphasis in Media and Production Ministry Major

WSA-120 ^Ω	Media and Production for Worship Ministry	2 credits
BIB-106	Old Testament Survey	4 credits
WSA-161 ^Ω	Worship Summit I	0 credits
WSA-125	Introduction to Sound for Contemporary Worship	2 credits
BIB-107	New Testament Survey	4 credits
WSA-261 ^Ω	Worship Summit II	0 credits
HTH-201	Christian Theology I	4 credits
WSA-323 ^Ω	Media Design for Contemporary Worship	4 credits
WSA-330 ^Ω	Philosophy of Music in Christian Worship	4 credits
WSA-262 ^Ω	Worship Summit III	0 credits
HTH-202	Christian Theology II	4 credits
WSA-321 ^Ω	Psalms, Hymns, and Spiritual Songs	4 credits
WSA-345	Digital Film Production	4 credits
WSA-334 ^Ω	Stagecraft and Lighting for Contemporary Worship	4 credits
WSA-263 ^Ω	Worship Summit IV	0 credits
WSA-408	Sound Recording	2 credits
WSA-322	Theology of Worship	4 credits
WSA-418	Sound Reinforcement	2 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

WSA-423	Worship Leadership	4 credits
WSA-451^Ω	Worship Arts Capstone Project	2 credits
WSA-445^Ω	Production Leadership for Worships Arts	4 credits
HTH-330^Λ	Christian Ethics	4 credits
WSA-429^Ω	Worship Arts Internship	4 credits
Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry Major		66 credits

Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry *Effective August 2020*

Grand Canyon University's Bachelor of Arts in Worship Arts is designed to prepare students for careers in worship leadership, ministry, technical direction, and production. Worship Arts refers not only to worship leadership within local churches but, more broadly, to songwriting, performance, media, production, and technical direction. The core of the Worship Arts program is designed to offer a well-rounded theological education and to equip students with basic knowledge and skills in the areas of worship leadership, performance, lighting, media, and sound production. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian worship environments. Students who graduate from this program will possess a strong foundation of biblical and theological knowledge and will be skilled in worship leadership, ministry, production, and the technical aspects of worship arts. In addition to the core, students will choose an emphasis in either Worship Ministry or Media and Production Ministry depending on their desired area of specialization. Graduates of the Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry are prepared to provide vital leadership and creative direction for worship services through media, audio/visual production, and technical direction. This degree emphasizes ministerial leadership in the areas of technical ability, artistic excellence, and production. Upon completion of the program, students will possess a strong foundation of biblical and theological knowledge and will be prepared to lead in the areas of media and production ministry. Coursework emphasizes media and production ministry for contemporary worship, sound recording and reinforcement, and audio/visual direction. Students study lighting design, technical direction, media preparation and presentation, sound and lighting enhancements, and stage and set design while learning to coordinate instrumentalists, vocalists, and audio/visual teams. Significant emphasis is placed on project management, team building, and effective leadership. An internship provides learners with diverse opportunities to apply their knowledge and continue to develop their worship arts skills under the supervision of experienced worship pastors in local ministry settings.

Degree Requirements

Total General Education	34-40 credits
Total Worship Arts with an Emphasis in Media and Production Ministry Major	64 credits
Total Electives	16-22 credits

Total Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry	120 credits
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Worship Arts with an Emphasis in Media and Production Ministry Major

BIB-106	Old Testament Survey	4 credits
WSA-123	Church Audio	4 credits
WSA-116^Ω	Worship Leader Lab	1 credit
WSA-320	Digital Audio Workstation	4 credits
DDN-101	Design Thinking	4 credits
BIB-107	New Testament Survey	4 credits
MIN-114^Ω	Spiritual Formation Lab	1 credit
WSA-420	Audio Recording	4 credits
HTH-201	Christian Theology I	4 credits
WSA-206^Ω	Worship Formation Lab	1 credit
WSA-425	Audio Reinforcement	4 credits
HTH-202	Christian Theology II	4 credits
MIN-214^Ω	Ministry Skills Lab	1 credit
WSA-423	Worship Leadership	4 credits
WSA-334	Stagecraft and Lighting for Contemporary Worship	4 credits
WSA-322	Theology of Worship	4 credits
HTH-330^Λ	Christian Ethics	4 credits
WSA-345	Digital Film Production	4 credits
WSA-429^Ω	Worship Arts Internship	4 credits

Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry Major	64 credits
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Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry

The Bachelor of Arts in Worship Arts is designed to prepare students for careers in worship leadership, ministry, technical direction, and production. Worship Arts refers not only to worship leadership within local churches but, more broadly, to songwriting, performance, media, production, and technical direction. The core of the Worship Arts program is designed to offer a well-rounded theological education and to equip students with basic knowledge and skills in the areas of worship leadership, performance, lighting, media, and sound production. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian worship environments. Students who graduate from this program will possess a strong foundation of biblical and theological knowledge and will be skilled in worship leadership, ministry, production, and the technical aspects of worship arts. In addition to the core, students will choose an emphasis in either Worship Ministry or Media and Production Ministry depending on their desired area of specialization. Graduates of the B.A. in Worship Arts with an Emphasis in Worship Ministry program are prepared for careers in worship leadership and ministry. This program emphasizes creativity, artistry, musical ability, and performance in addition to ministerial preparation and leadership skills. Upon completion of the program, students will possess a strong foundation of biblical

^Λ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

and theological knowledge and will be capable of coordinating and leading corporate worship, songwriting and arranging, and musical performance. Coursework emphasizes musical direction for contemporary worship, fundamentals of music theory for contemporary worship, song writing and arranging, sound recording and reinforcement, as well as training in piano, voice, guitar, percussion, and a primary performance instrument. Students participate in a variety of worship-related ensembles throughout their degree. A capstone internship provides learners with diverse opportunities to apply their knowledge and continue to develop their worship ministry skills under the supervision of experienced worship leaders in local ministry settings.

Degree Requirements

Total General Education	34-40 credits
Total Worship Arts with an Emphasis in Worship Ministry Major	66 credits
Total Electives	14-20 credits
Total Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry	120 credits

Worship Arts with an Emphasis in Worship Ministry Major

WSA-215	Fundamentals of Music Theory for Contemporary Worship I	2 credits
BIB-106	Old Testament Survey	4 credits
WSA-209	Aural Skills I	1 credit

One of the following four courses:

WKA-111	Private Keyboard Study I	1 credit
WGA-111	Private Guitar Study I	1 credit
WPA-111	Private Percussion Study I	1 credit
WVA-111	Private Voice Study I	1 credit

WSA-161	Worship Summit I	0 credits
WSA-120	Media and Production in Worship Ministry	2 credits
WSA-315	Fundamentals of Music Theory for Contemporary Worship II	2 credits
BIB-107	New Testament Survey	4 credits
WSA-105	Song Writing I	1 credit
WSA-309	Aural Skills II	1 credit

One of the following four courses:

WKA-112	Private Keyboard Study II	1 credit
WGA-112	Private Guitar Study II	1 credit
WPA-112	Private Percussion Study II	1 credit
WVA-112	Private Voice Study II	1 credit

WSA-261	Worship Summit II	0 credits
HTH-201	Christian Theology I	4 credits
WSA-330	Philosophy of Music in Worship	4 credits
WSA-305	Song Writing II	1 credit

One of the following four courses:

WKA-211	Private Keyboard Study III	1 credit
WGA-211	Private Guitar Study III	1 credit

WPA-211	Private Percussion Study III	1 credit
WVA-211	Private Voice Study III	1 credit

WSA-262	Worship Summit III	0 credits
WSA-225	Worship Workshop I	0 credits
WSA-205	Arranging I	1 credit
HTH-202	Christian Theology II	4 credits
WSA-321[†]	Psalms, Hymns, and Spiritual Songs	4 credits
WSA-125	Introduction to Sound for Contemporary Worship	2 credits
WSA-405	Arranging II	1 credit

One of the following four courses:

WKA-212	Private Keyboard Study IV	1 credit
WGA-212	Private Guitar Study IV	1 credit
WPA-212	Private Percussion Study IV	1 credit
WVA-212	Private Voice Study IV	1 credit

WSA-263	Worship Summit IV	0 credits
WSA-226	Worship Workshop II	0 credits
WSA-322^{‡A}	Theology of Worship	4 credits

One of the following four courses:

WKA-311	Private Keyboard Study V	1 credit
WGA-311	Private Guitar Study V	1 credit
WPA-311	Private Percussion Study V	1 credit
WVA-311	Private Voice Study V	1 credit

One of the following four courses:

WSA-113	Class Voice	1 credit
WSA-114	Class Keyboard	1 credit
WSA-213	Class Guitar	1 credit
WSA-214	Class Percussion	1 credit

WSA-227	Worship Workshop III	0 credits
WSA-423	Worship Leadership	4 credits

One of the following four courses:

WKA-312	Private Keyboard Study VI	1 credit
WGA-312	Private Guitar Study VI	1 credit
WPA-312	Private Percussion Study VI	1 credit
WVA-312	Private Voice Study VI	1 credit

WSA-228	Worship Workshop IV	0 credits
WSA-451	Worship Arts Capstone Project	2 credits
WSA-416	Music Direction for Contemporary Worship	2 credits

[†] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

One of the following four courses:

WSA-113	Class Voice	1 credit
WSA-114	Class Keyboard	1 credit
WSA-213	Class Guitar	1 credit
WSA-214	Class Percussion	1 credit

HTH-330	Christian Ethics	4 credits
WSA-429	Worship Arts Internship	4 credits

Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry Major	66 credits
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Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry *Effective August 2020*

Grand Canyon University's Bachelor of Arts in Worship Arts is designed to prepare students for careers in worship leadership, ministry, technical direction, and production. Worship Arts refers not only to worship leadership within local churches but, more broadly, to songwriting, performance, media, production, and technical direction. The core of the Worship Arts program is designed to offer a well-rounded theological education and to equip students with basic knowledge and skills in the areas of worship leadership, performance, lighting, media, and sound production. Attention is also given to the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the local church and in other Christian worship environments. Students who graduate from this program will possess a strong foundation of biblical and theological knowledge and will be skilled in worship leadership, ministry, production, and the technical aspects of worship arts. In addition to the core, students will choose an emphasis in either Worship Ministry or Media and Production Ministry depending on their desired area of specialization. Graduates of the Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry program are prepared for careers in worship leadership and ministry. This program emphasizes creativity, artistry, musical ability, and performance in addition to ministerial preparation and leadership skills. Upon completion of the program, students will possess a strong foundation of biblical and theological knowledge and will be capable of coordinating and leading corporate worship, songwriting and arranging, and musical performance. Coursework emphasizes musical direction for contemporary worship, fundamentals of music theory for contemporary worship, song writing and arranging, mastery training in a primary performance instrument, and proficiency training in a secondary instrument. An internship provides learners with diverse opportunities to apply their knowledge and continue to develop their worship ministry skills under the supervision of experienced worship leaders in local ministry settings.

Degree Requirements

Total General Education	34-40 credits
Total Worship Arts with an Emphasis in Media and Production Ministry Major	64 credits
Total Electives	16-22 credits
Total Bachelor of Arts in Worship Arts with an Emphasis in Media and Production Ministry	120 credits

Worship Arts with an Emphasis in Media and Production Ministry Major

WSA-300	Musical Structures I	4 credits
BIB-106	Old Testament Survey	4 credits
WVA-111	Private Voice Study I	1 credit
WSA-116^Ω	Worship Leader Lab	1 credit
WSA-301	Musical Structures II	4 credits
BIB-107	New Testament Survey	4 credits
WVA-112	Private Voice Study II	1 credit
MIN-114^Ω	Spiritual Formation Lab	1 credit
WSA-123	Church Audio	4 credits
HTH-201	Christian Theology I	4 credits
WVA-211	Private Voice Study III	1 credit
WSA-206^Ω	Worship Formation Lab	1 credit
WSA-302	Songwriting and Arranging	4 credits
HTH-202	Christian Theology II	4 credits
WSA-320	Digital Audio Workstation	4 credits
WVA-212	Private Voice Study IV	1 credit
MIN-214^Ω	Ministry Skills Lab	1 credit
WSA-331	Introduction to Worship Arts Software	4 credits
WSA-423	Worship Leadership	4 credits
WSA-322	Theology of Worship	4 credits
HTH-330	Christian Ethics	4 credits
WSA-429^Ω	Worship Arts Internship	4 credits

Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry Major	64 credits
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Christian Studies: Graduate Programs

Master of Arts in Christian Leadership

Grand Canyon University's Masters of Arts in Christian Leadership degree is designed for individuals who plan to provide distinctively Christian leadership within various contexts, including church, parachurch, non-profit organizations, business, community, and public service contexts. This degree program offers basic biblical knowledge, practical theology, and skills necessary for effective leadership in order to make maximum impact for God's kingdom.

Curriculum for the Masters of Arts in Christian Leadership degree explores Old and New Testament foundations, biblical interpretation, Christian doctrine, ministerial ethics, and various styles of leadership. Coursework also guides students through the process of developing theologically sound strategies for leading in ways that align well with the needs of the community and individual giftedness.

This degree prepares students with the knowledge and skills necessary for service as Christian leaders within the church or the community. Students complete the program with foundational understandings and the ability to apply those understandings practically in leadership settings. The program teaches how to lead with Christ-like character through good times and through

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

crises. It was created for those with a passion for biblical leadership who intend to serve faithfully within their church or community. Supervised ministry field experiences are embedded throughout the coursework to apply the program's concepts, theories, and research into real-world contexts.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-515	Christian Doctrines	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-526	Ministerial Ethics	4 credits
CHL-510	Biblical Foundations of Christian Leadership	4 credits
CHL-630	Best Practices in Christian Leadership	4 credits
HTH-620	Practical Theology	4 credits
CHL-650	Leading Through Crisis, Conflict and Change	4 credits
Master of Arts in Christian Leadership		38 credits

Master of Arts in Christian Ministry

Grand Canyon University's Masters of Arts in Christian Ministry degree prepares graduates to provide spiritual guidance and care to members of their church or Christian organization. This program is designed for those who are called to part-time, bi-vocational, or lay ministry and require theological training to lead in the local church.

Curriculum for the Masters of Arts in Christian Ministry degree explores Old and New Testament foundations, biblical interpretation, Christian doctrine, ministerial ethics, and basic pastoral care. Coursework also guides students through the process of preparing spiritually and professionally in order to shepherd others with grace, compassion, and skill.

This degree prepares students with the knowledge and skills necessary for service as assistant pastors, pastoral associates, administrative pastors, Bible study leaders, deacons, lay elders, or in various supporting roles related to Christian ministry and service. Students complete the program with foundational understandings and the ability to apply those understandings within the context of Christian ministry. The program teaches how to provide pastoral care that centers on the gospel of Jesus Christ, edifies the Christian community, and serves the needs of those inside and outside of the local church. It was developed for the lay person with a passion for Christ-like service and ministry. Supervised ministry field experiences are embedded throughout the coursework to apply the program's concepts, theories, and research into real-world contexts.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-515	Christian Doctrines	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-526	Ministerial Ethics	4 credits

MIN-515	Pastoral Care in a Ministry Context	4 credits
MIN-535	Communicating in a 21st-Century Ministry Context	4 credits
HTH-620	Practical Theology	4 credits
MIN-655	Leading and Organizing Ministries in the Church	4 credits

Master of Arts in Christian Ministry		38 credits
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Master of Arts in Urban Ministry

Grand Canyon University's Masters of Arts in Urban Ministry degree was created for individuals with a heart for the city who are concerned to meet spiritual needs in urban settings. This degree program features basic biblical knowledge, practical theology, and the skills necessary to address the unique needs that arise in urban contexts.

Curriculum for the Masters of Arts in Urban Ministry degree explores Old and New Testament foundations, biblical interpretation, Christian doctrine, and ministerial ethics. Coursework also provides students the ability to contextualize the Christian message without compromising the integrity of the gospel. Emphasis is placed on the dynamics of urban communities, challenges facing the church today, and the need to minister to people holistically through the power of the gospel while maintaining the priorities of evangelism and discipleship.

Students complete the program with foundational understandings and the ability to apply those understandings within urban contexts. Inner cities can present a unique set of issues and circumstances. Graduates of the program are prepared to address these specific challenges and offer guidance to urban communities. This program is also appropriate for those interested in working at a suburban church with an outreach to urban church counterparts, those who wish to work for a nonprofit, or individuals interested in starting their own nonprofit ministry in an urban setting. Supervised ministry field experiences are embedded throughout the coursework to apply the program's concepts, theories, and research into real-world contexts.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-515	Christian Doctrines	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-526	Ministerial Ethics	4 credits
INT-510	Biblical Foundations of Urban Ministry	4 credits
INT-625	Multicultural Ministry and Contextualization	4 credits
HTH-620	Practical Theology	4 credits
INT-630	Issues in Urban Ministry	4 credits

Master of Arts in Urban Ministry		38 credits
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Master of Arts in Youth and Family Ministry

Grand Canyon University's Masters of Arts in Youth and Family Ministry degree is designed for people who have a passion for discipleship that addresses the key stages of human development, from childhood through adulthood. This degree program offers

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

basic biblical knowledge, practical theology, and skills necessary for effective ministry to youth and families within the local church or a Christian organization.

Curriculum for the Masters of Arts in Youth and Family Ministry degree explores Old and New Testament foundations, biblical interpretation, Christian doctrine, and ministerial ethics. Coursework also guides students through the process of learning to apply biblical and theological principles within the context of ministry to specific groups and members of families. Special emphasis is placed on learning to listen and guide youth and their families through the challenging years of pre-adult growth and development.

This degree prepares students with the knowledge and skills necessary for service as youth leaders, children's ministers, assistant pastors, family ministers, or para-church leaders. Students complete the program with foundational understandings and the ability to apply those understandings within the context of youth and family ministry. The program teaches how to provide biblical care that centers on the gospel of Jesus Christ while meeting the unique needs of family life and personal development at each of life's stages. It was created for those with a strong desire to provide discipleship that addresses today's challenges with godly wisdom. Supervised ministry field experiences are embedded throughout the coursework to apply the program's concepts, theories, and research into real-world contexts.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-515	Christian Doctrines	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-526	Ministerial Ethics	4 credits
MIN-511	Foundations of Youth and Family Ministry	4 credits
MIN-620	Stages of Development and Faith Formation	4 credits
HTH-620	Practical Theology	4 credits
MIN-650	Conflict, Crisis, and Pastoral Care	4 credits
Master of Arts in Youth and Family Ministry		38 credits

Master of Divinity

The Master of Divinity is the standard degree for professional ministry preparation and is designed for students who intend to serve in local churches, Christian organizations, and other ministerial roles. The Master of Divinity program offers comprehensive biblical and theological knowledge while developing skills necessary for effective Christian ministry. The Master of Divinity curriculum focuses on biblical, historical, theological, and ethical knowledge as well as exegetical, pastoral, and homiletic skills. Significant attention is also directed at the inward formation of Christ-like character and an ability to minister with wisdom and sensitivity within the community of faith and as leaders in the public domain. Thus the Master of Divinity provides a strong basis for ordained, professional ministry and a substantial foundation for advanced study in preparation for an academic career. This degree features a foundational, pastorally oriented program of study that

emphasizes the centrality of the gospel, the significance of the church, and the pressing need to advance the Kingdom through missions. The program's courses are designed to offer the crucial components of a well-rounded, theological education and to equip students for a life of faithful ministry.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-526	Ministerial Ethics	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-509	Christian Character Formation	4 credits
HTH-505	Systematic Theology I	4 credits
INT-525	Christian Worldview and Mission	4 credits
MIN-524	Evangelism and Discipleship	4 credits
HEB-501	Elementary Hebrew I	4 credits
BIB-611	Old Testament Exegesis: Pentateuch	4 credits
GRK-501	Elementary Greek I	4 credits
BIB-620	New Testament Exegesis: Gospels and Acts	4 credits
HTH-611^Ω	Pastoral Theology	4 credits
HTH-550	Systematic Theology II	4 credits
HTH-640	Doctrine of the Church	4 credits
BIB-610	Old Testament Exegesis: Prophets and Writings	4 credits
BIB-621	New Testament Exegesis: Epistles and Revelation	4 credits
HTH-510	Christian History I	4 credits
MIN-601	Christ-Centered Preaching	4 credits
HTH-511	Christian History II	4 credits
PHI-610	Christian Apologetics	4 credits

Students should enroll in a total of 4 credits from the following courses

MIN-675	Biblical Leadership and Ministry	4 credits
MIN-690	Ministry Internship	4 credits
Master of Divinity		82 credits

Graduate Certificate of Completion in Biblical Foundations

The Graduate Certificate of Completion in Biblical Foundations provides students with fundamental biblical understandings intended to enhance personal devotion and prepare them for teaching ministries within a variety of contexts. This program of study is designed to equip students with competencies necessary for local church service by instilling a foundational knowledge of God's word and basic competency in rightly interpreting Scripture, while cultivating Christian character. Coursework for this emphasis introduces students to the Old and New Testaments, biblical hermeneutics, and principles for spiritual formation.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
BIB-501	Old Testament Foundations	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BIB-502	New Testament Foundations	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-510	Christian Character Formation	4 credits
Graduate Certificate of Completion in Biblical Foundations		18 credits

Graduate Certificate of Completion in Ministry Education

The Graduate Certificate of Completion in Ministry Education equips students with fundamental knowledge and skills needed for ministry within a variety of church and ministerial contexts. This program of study is designed to prepare students with basic understandings for biblical interpretation, theology, ethics, and pastoral ministry, while also cultivating Christian character. Coursework will help students engage in biblical exegesis and hermeneutics, think theologically, and reason and act ethically within various ministerial contexts.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-526	Ministerial Ethics	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-509	Christian Character Formation	4 credits
HTH-505	Systematic Theology I	4 credits
Graduate Certificate of Completion in Ministry Education		18 credits

Graduate Certificate of Completion in Christian Theology

The Graduate Certificate of Completion in Christian Theology provides students with fundamental understandings of systematic and historical theology. This program of study is designed to equip students with knowledge and competencies necessary for local church service by instilling a foundational knowledge of Christian theology including the biblical and historical roots of key doctrines of the faith. Coursework for this emphasis introduces students to the major doctrines of Christianity and traces the development of theological understanding throughout Church history.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
HTH-510	Christian History I	4 credits
HTH-511	Christian History II	4 credits
Graduate Certificate of Completion in Christian Theology		18 credits

Post-Master of Arts in Theology: Introductory Biblical Languages Certificate

The Post-Master of Arts in Theology: Introductory Biblical Languages Certificate provides students with fundamental understandings and skills that prepare them to properly interpret and communicate the biblical text for the sake of ministry within a local church. This program of study is designed to equip

students with the foundational skills necessary for basic analysis of Scripture in the original languages in conjunction with biblical software. Students hone their exegetical skills through application within selected portions of the Old and New Testaments. Coursework for this emphasis introduces biblical Hebrew and Greek and selected biblical passages.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
HEB-501	Elementary Hebrew I	4 credits
BIB-611	Old Testament Exegesis: Pentateuch	4 credits
GRK-501	Elementary Greek I	4 credits
BIB-620	New Testament Exegesis: Gospels And Acts	4 credits
Post-Master of Arts in Theology: Introductory Biblical Languages Certificate		18 credits

Minors

Minor in Biblical Studies

A minor in Biblical Studies provides students in any major with basic knowledge of the Bible and the ability to interpret Scripture effectively. Coursework surveys the Bible as a whole, introduces principles and practices for sound interpretation, and applies interpretive skills to major divisions of the Bible. This minor is designed for students who want to understand the Bible more fully and learn to interpret it faithfully.

Minor Requirements

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
BIB-355^A	Biblical Interpretation	4 credits
BIB-350	Pentateuch	4 credits
BIB-360	Gospel and Acts	4 credits
Minor in Biblical Studies		20 credits

Minor in Christian Studies

A minor in Christian Studies offers students in any major basic biblical and theological understandings. Students gain ethical knowledge while exploring the virtues and habits that shape Christian character and morality. This minor complements foundational teachings introduced in Christian Worldview through additional study along with an emphasis on discipleship and the development of Christ-like character.

Minor Requirements

BIB-106	Old Testament Survey	4 credits
BIB-107	New Testament Survey	4 credits
MIN-320	Christian Character Formation	4 credits
HTH-330^{Af}	Christian Ethics	4 credits
Minor in Christian Studies		16 credits

Minor in Philosophy

The Grand Canyon University Minor in Philosophy introduces students to philosophical studies in key areas including knowledge and reality, ethics, and philosophy of religion. The program complements foundational teachings introduced in

^A Writing intensive course | [♦] Fulfills General Education requirement | ^z Honors Major Course | ^Ω Non-Transferable

Christian worldview by providing students with competencies necessary to effectively engage in ethical and philosophical discourse. Students are trained to analyze and assess ideas and ethical systems and express their understandings effectively to others.

Minor Requirements

PHI-103	Introduction to Philosophy and Ethics	4 credits
PHI-301	Knowledge and Reality	4 credits
PHI-307	Applied Ethics	4 credits
PHI-403	Philosophy of Religion	4 credits
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Minor in Philosophy		16 credits

Minor in Worship Arts

A minor in Worship Arts helps students develop a biblical theology of worship as they explore historical and contemporary

approaches to worship. Students develop character and leadership skills for a faithful and fruitful worship ministry as they prepare to serve in worship leadership roles. This minor is designed for students in any major who want to develop skill, ability, and knowledge for service as effective worship leaders within the church and other Christian worship environments.

Minor Requirements

HTH-201	Christian Theology I	4 credits
HTH-202	Christian Theology II	4 credits
WSA-322 ^Δ	Theology of Worship	4 credits
WSA-423	Worship Leadership	4 credits
WSA-424	Christian Worldview and Media	4 credits
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Minor in Worship Arts		20 credits

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

The College of Science, Engineering, and Technology

College Description

With science, engineering, technology, and mathematics professions in extremely high demand, driving our economy, continuously evolving, and redefining modern day life the College of Science, Engineering, and Technology is focused on preparing exceptionally competent graduates to enter the dynamic and highly competitive workforce of the 21st century.

While excellence in content knowledge and skill is essential, developed abilities such as creativity, adaptability, collaboration, effective communication along with personal qualities such as social awareness, responsibility, ethical character, and compassion are significant differentiators of the strongest candidates or applicants whether they are seeking to go on to graduate school or enter the workforce.

To help students develop these abilities we provide ample opportunity through our curricular and co-curricular activities to apply skills, solve problems, and innovate through inquiry-based learning; to engage in internships designed in conjunction with educational and industry partners; to participate in multifaceted team projects; and to experience cross-disciplinary exposure; ensuring that their acquired skills are relevant to the workplace and their future success.

Through intentional focus on the students as unique and special individuals they are also provided opportunity to develop the more personal interactional qualities necessary to be an ethical team player within the workforce and productive contributor to the greater society. Such opportunities include participation in faculty mentoring, engagement in the GCU and local communities, and developing an understanding of, or fully embracing, a Christian worldview as well as developing an understanding of how the worldview that we approach life with affects both the intention and the outcome of that interaction.

College Vision

The College of Science, Engineering, and Technology will become the premier choice for a first-class educational experience that nurtures and supports Christian character development while providing exceptional career preparation in the fields of science, technology, engineering, and mathematics.

College Mission

Through robust collaboration and partnership with industry; a challenging, engaging, and inquiry-based learning environment; a faculty focused exclusively on student success; and a deep, rich Christian heritage; the College of Science, Engineering, and Technology exemplifies the preparation of top candidates for graduate study and professional practice in the most rapidly developing and competitive fields of science, technology, engineering, and mathematics.

Guiding Principles

The College of Science, Engineering and Technology

- Empowers students to find and fulfill their purpose
- Offers an educational experience of superior value
- Prepares students with the knowledge, skills and mental disciplines to succeed in the contemporary job market and to positively impact their world
- Develops in students an informed, critical-thinking mind and a servant's heart
- Fosters qualities of creativity, adaptability, collaboration, effective communication, problem solving, and appreciation that support students in their continuous learning and spiritual growth
- Instills social awareness, responsibility, ethical character, and compassion in students that emanates from the Christian worldview and the example of Christ.

Science Programs

Bachelor of Science in Biochemistry and Molecular Biology

The Bachelors of Science (B.S.) in Biochemistry and Molecular Biology conforms to the guidelines provided by the American Society for Biochemistry and Molecular Biology and offers students a unique interdisciplinary curriculum. With a curriculum drawing from both disciplines as well as specific biochemistry courses, the program provides a broad background in the physical and life sciences. It is suitable for students planning careers in high-growth areas such as biotechnology and health care research or further training in graduate biomedical professional programs. Many graduates enter employment in the biomedical, biotechnology, pharmaceutical, agricultural research and chemical industries. Others find work in university, government or hospital research laboratories.

Degree Requirements

Total General Education	34-40 credits
Total Biochemistry and Molecular Biology Major	76 credits
Total Electives	4-10 credits
Biochemistry and Molecular Biology Major	120 credits

Biochemistry and Molecular Biology Major

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
MAT-261	Pre-Calculus	4 credits
MAT-274	Probability and Statistics	4 credits
BIO-205	Microbiology	3 credits
BIO-205L	Microbiology Lab	1 credit
PHY-111	General Physics I	3 credits
PHY-111L	General Physics I Lab	1 credit

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
BIO-333[‡]	Molecular and Cellular Biology	4 credits
PHY-112	General Physics II	3 credits
PHY-112L	General Physics II Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
BIO-457^{‡Δ}	Genetics	4 credits
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I – Lab	1 credit
BIO-360	Medical Physiology	3 credits
BIO-360L	Medical Physiology Lab	1 credit
CHM-360	Principles of Biochemistry	3 credits
CHM-360L	Principles of Biochemistry Lab	1 credit
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
CHM-460	Advanced Biochemistry	3 credits
CHM-460L	Advanced Biochemistry Lab	1 credit
BIO-475	Advanced Genetics	3 credits
BIO-475L	Advanced Genetics Lab	1 credit
CHM-451	Pharmacology I	4 credits
SCI-495^Ω	Capstone Project in the Sciences	4 credits
Biochemistry and Molecular Biology Major		76 credits

Bachelor of Science in Biological Sciences

Grand Canyon University's Bachelor of Science in Biological Sciences prepares students for careers in a wide range of fields that utilize biological principles and provide the foundation to develop as scientists or biology professionals. Possible career paths include: technicians, naturalists, environmental education/outreach professionals, museum coordinators, conservation biologists, park rangers, Game and Fish professionals, zookeepers, and EPA, NRCS, USGS, or other government professionals. Students completing the Bachelor of Science in Biological Sciences will understand and demonstrate competency in a broad body of knowledge that includes the domains of biology, chemistry, environmental sciences, ecology, and conservation. Students will also learn about professional and ethical practices associated with biology, all presented through the lens of a Christian worldview..

Degree Requirements

Total General Education	34-40 credits
Total Biological Sciences Major	64 credits
Total Electives	16-22 credits
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Biological Sciences Major	120 credits

Biological Sciences Major

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit

BIO-182	General Biology II	3 credits
BIO-182L	General Biology II – Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
PHY-105	Fundamental Physics	3 credits
PHY-105L	Fundamental Physics Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
BIO-257	Principles of Genetics	4 credits
MAT-274	Probability and Statistics	4 credits
SCI-328	Science Methods and Communication	4 credits
BIO-342	Analysis of Biological Diversification	4 credits
BIO-326	Interdisciplinary Applications of Biology	4 credits
BIO-320	Fundamentals of Ecology	3 credits
BIO-320L	Fundamentals of Ecology-Lab	1 credit
BIO-415	Vertebrate Zoology	3 credits
BIO-415L	Vertebrate Zoology Lab	1 credit
BIO-328	Animal Behavior	3 credits
BIO-328L	Animal Behavior Lab	1 credit
BIO-420	Conservation Biology	4 credits
BIO-479	Applied Field Research	4 credits
BIO-487^Ω	Capstone Thesis in Biology	4 credits
Biological Sciences Major		64 credits

Bachelor of Science in Biology for Secondary Education (IP/TL)

(Initial Program–Leads to Initial Teacher Licensure)

This program is offered by the College of Science, Engineering, and Technology in conjunction with teaching licensure requirement courses provided by the College of Education for students who are preparing for a teaching career in grades 7-12 and who are seeking initial teacher licensure. The format and courses of this regionally accredited and Arizona-approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles. Content courses are aligned to the standards of the National Science Teachers Association (NSTA). Opportunities are provided to apply concepts, theories, and research throughout the program. Assessments within many of the courses guide students through 85 hours of practicum/field experiences prior to student teaching, and the final semester of the program requires a full-time, 16-week student teaching component. Applicants to the program are responsible for contacting their state department of education for licensure requirements and program approval. Arizona or home state fingerprint/background clearance is required for all practicum/field experiences and student teaching. Furthermore, applicants should consult the Grand Canyon University Catalog, the University Policy Handbook, and an academic counselor to obtain information regarding current policies and procedures inherent in a teacher licensure program.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Degree Requirements

Total General Education	34-40 credits
Total Biology for Secondary Education Major	86 credits
Total Electives	0-6 credits
Biology for Secondary Education Major	126 credits
Total Practicum/Field Experience	85 hours

Required General Education

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-274	Probability and Statistics	4 credits

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

SEC-201	Early Adolescent and Adolescent Psychology	4 credits
SCI-210	History Landmarks in the Natural Sciences	2 credits
SCI-211	Paradigm Shifts in the Natural Sciences	2 credits

Biology for Secondary Education Major

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
EDU-330 ^A	Social Justice for Educators	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II – Lab	1 credit
POS-301	U.S. and Arizona Constitutions	2 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
BIO-210	Anatomy and Physiology for Science Majors I	3 credits
BIO-210L	Anatomy and Physiology for Science Majors I Lab	1 credit
CHM-235	Survey of Organic Chemistry	3 credits
CHM-235L	Survey of Organic Chemistry Lab	1 credit
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
ESL-445N	Methods of Structured English Immersion for Secondary Education	3 credits
SCI-300L	Laboratory Safety and Supervision	1 credit
BIO-211	Anatomy and Physiology for Science Majors II	3 credits
BIO-211L	Anatomy and Physiology for Science Majors II Lab	1 credit
BIO-333 [‡]	Molecular and Cellular Biology	4 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits

SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
PHY-111	General Physics I	3 credits
PHY-111L	General Physics I Lab	1 credit
BIO-320	Fundamentals of Ecology	3 credits
BIO-320L	Fundamentals of Ecology Lab	1 credit
BIO-457 ^{‡A}	Genetics	4 credits
SCI-480	Methods of Teaching Science in Secondary Schools	4 credits
SEC-490	Student Teaching for Secondary Education	8 credits
Biology for Secondary Education Major		86 credits

Bachelor of Science in Biology with an Emphasis in Pre-Medicine

The Bachelor of Science in Biology with an Emphasis in Pre-Medicine is designed for students seeking acceptance into graduate study in any area of medicine or dentistry. The program will prepare graduates for the medical college admission test (MCAT), optometry admission test (OAT), or dental admission test (DAT) and includes specialized coursework focused on preparing students for success in their graduate studies and professional careers. Graduates will acquire foundational knowledge in biological sciences, physical sciences, social sciences, and health care issues. They will also study interpersonal and intercultural communication skills and investigate the psychological, spiritual, and physical components of health, wellness, and medical intervention.

Degree Requirements

Total General Education	34-40 credits
Total Biology with an Emphasis in Pre-Medicine Major	80 credits
Total Electives	0-6 credits
Biology with an Emphasis in Pre-Medicine Major	120 credits

Required General Education

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-274	Probability and Statistics	4 credits

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

PSY-102	General Psychology	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits

Biology with an Emphasis in Pre-Medicine Major

SCI-150 ^Ω	Critical Analyses in Science	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I – Lab	1 credit
CHM-113	General Chemistry I-Lecture	3 credits
CHM-113L	General Chemistry I - Lab	1 credit
BIO-210	Anatomy and Physiology for Science Majors I	3 credits

^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BIO-210L	Anatomy and Physiology for Science Majors I Lab	1 credit
BIO-215	General Microbiology	3 credits
BIO-215L	General Microbiology Lab	1 credit
CHM-115	General Chemistry II-Lecture	3 credits
CHM-115L	General Chemistry II - Lab	1 credit
BIO-211	Anatomy and Physiology for Science Majors II	3 credits
BIO-211L	Anatomy and Physiology for Science Majors II Lab	1 credit
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II - Lab	1 credit
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit
BIO-335	Medical Terminology	2 credits
SCI-318	Research Methods & Design	2 credits
PHY-111	General Physics I-Lecture	3 credits
PHY-111L	General Physics I - Lab	1 credit
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
BIO-457^{†Δ}	Genetics	4 credits
CHM-360[‡]	Principles of Biochemistry	3 credits
CHM-360L[‡]	Principles of Biochemistry - Lab	1 credit
PHY-112	General Physics II-Lecture	3 credits
PHY-112L	General Physics II - Lab	1 credit
BIO-483[‡]	Pathophysiology	4 credits
CHM-460	Advanced Biochemistry	3 credits
CHM-460L	Advanced Biochemistry Lab	1 credit
SCI-495^{ΩΔ}	Capstone Project in the Sciences	4 credits
BIO-333[‡]	Molecular and Cellular Biology	4 credits
CHM-451	Pharmacology I	4 credits
Biology with an Emphasis in Pre-Medicine Major		80 credits

Bachelor of Science in Biology with an Emphasis in Pre-Pharmacy

The Bachelor of Science in Biology with an Emphasis in Pre-Pharmacy is designed for students seeking acceptance into graduate pharmacy school. The program will prepare graduates for the pharmacy college admission test (PCAT) and includes specialized coursework focused on preparing students for success in their graduate studies and professional careers. Graduates will acquire foundational knowledge in biological sciences, physical sciences, social sciences, and health care issues. They will also develop interpersonal and intercultural communication skills and investigate the psychological, spiritual, and physical components of health, wellness, and medical intervention.

Degree Requirements

Total General Education	34-40 credits
Total Biology with an Emphasis in Pre-Pharmacy Major	76 credits
Total Electives	4-10 credits

Biology with an Emphasis in Pre-Pharmacy Major	120 credits
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Required General Education

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-274	Probability and Statistics	4 credits

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

PSY-102	General Psychology	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits

Biology with an Emphasis in Pre-Pharmacy Major

SCI-150^Ω	Critical Analyses in Science	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I – Lab	1 credit
CHM-113	General Chemistry I-Lecture	3 credits
CHM-113L	General Chemistry I - Lab	1 credit
BIO-210	Anatomy and Physiology for Science Majors I	3 credits
BIO-210L	Anatomy and Physiology for Science Majors I Lab	1 credit
BIO-215	General Microbiology	3 credits
BIO-215L	General Microbiology Lab	1 credit
CHM-115	General Chemistry II-Lecture	3 credits
CHM-115L	General Chemistry II - Lab	1 credit
BIO-211	Anatomy and Physiology for Science Majors II	3 credits
BIO-211L	Anatomy and Physiology for Science Majors II Lab	1 credit
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II - Lab	1 credit
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit
BIO-335	Medical Terminology	2 credits
SCI-318	Research Methods & Design	2 credits
MAT-351	Calculus for Biomedical Science	4 credits
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
BIO-457^{†Δ}	Genetics	4 credits
CHM-360[‡]	Principles of Biochemistry	3 credits
CHM-360L[‡]	Principles of Biochemistry - Lab	1 credit
PHY-111	General Physics I-Lecture	3 credits
PHY-111L	General Physics I - Lab	1 credit
BIO-483[‡]	Pathophysiology	4 credits
CHM-451	Pharmacology I	4 credits
SCI-495^{ΩΔ}	Capstone Project in the Sciences	4 credits
CHM-452	Pharmacology II	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Biology with an Emphasis in Pre-Pharmacy Major	76 credits
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Bachelor of Science in Biology with an Emphasis in Pre-Physical Therapy

The Bachelor of Science in Biology with an Emphasis in Pre-Physical Therapy is designed for students seeking acceptance into graduate level physical therapy education. The program includes specialized coursework focused on preparing students for success in their graduate studies and professional careers. Graduates will acquire foundational knowledge in biological sciences, exercise science, social sciences, and health care issues. They will also develop interpersonal communication skills and investigate the psychological, spiritual, and physical components of health, wellness, and therapeutic intervention.

Degree Requirements

Total General Education	34-40 credits
Total Biology with an Emphasis in Pre-Physical Therapy Major	76 credits
Total Electives	4-10 credits
Biology with an Emphasis in Pre-Physical Therapy Major	120 credits

Required General Education

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-274	Probability and Statistics	4 credits

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

PSY-102	General Psychology	4 credits
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Biology with an Emphasis in Pre-Physical Therapy Major

SCI-150 ^Ω	Critical Analyses in Science	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I – Lab	1 credit
CHM-113	General Chemistry I-Lecture	3 credits
CHM-113L	General Chemistry I - Lab	1 credit
BIO-210	Anatomy and Physiology for Science Majors I	3 credits
BIO-210L	Anatomy and Physiology for Science Majors I Lab	1 credit
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II - Lab	1 credit
CHM-115	General Chemistry II-Lecture	3 credits
CHM-115L	General Chemistry II - Lab	1 credit
BIO-211	Anatomy and Physiology for Science Majors II	3 credits
BIO-211L	Anatomy and Physiology for Science Majors II Lab	1 credit
PHY-111	General Physics I-Lecture	3 credits
PHY-111L	General Physics I - Lab	1 credit
BIO-335	Medical Terminology	2 credits
SCI-318	Research Methods & Design	2 credits

EXS-340	Physiology of Exercise	3 credits
EXS-340L	Physiology of Exercise – Lab	1 credit
PHY-112	General Physics II-Lecture	3 credits
PHY-112L	General Physics II - Lab	1 credit
EXS-335	Kinesiology	3 credits
EXS-335L	Kinesiology Lab	1 credit
PSY-357	Lifespan Development	4 credits
EXS-430	Health Promotion	4 credits
BIO-483 [†]	Pathophysiology	4 credits
PSY-470	Abnormal Psychology	4 credits
SCI-495 ^{ΩA}	Capstone Project in the Sciences	4 credits
EXS-485	Research Methods in Exercise Science	4 credits
EXS-318	Principles of Corrective Exercises	4 credits

Biology with an Emphasis in Pre-Medicine Major	76 credits
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Bachelor of Science in Biology with an Emphasis in Pre-Pre-Physician Assistant

The Bachelor of Science in Biology with an Emphasis Pre-Physician Assistant is designed for students seeking acceptance into graduate level physician assistant education. The program includes specialized coursework focused on preparing students for success in their graduate studies and professional careers. Graduates will acquire foundational knowledge in biological sciences, physical sciences, social sciences, and health care issues. They will also develop interpersonal communication skills and investigate the psychological, spiritual, and physical components of health, wellness, and medical intervention.

Degree Requirements

Total General Education	34-40 credits
Total Biology with an Emphasis in Pre-Physician Assistant Major	80 credits
Total Electives	0-6 credits
Biology with an Emphasis in Pre-Physician Assistant Major	120 credits

Required General Education

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-274	Probability and Statistics	4 credits

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

PSY-102	General Psychology	4 credits
PSY-357	Lifespan Development	4 credits

Biology with an Emphasis in Pre-Physician Assistant Major

SCI-150 ^Ω	Critical Analyses in Science	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I – Lab	1 credit
CHM-113	General Chemistry I-Lecture	3 credits
CHM-113L	General Chemistry I - Lab	1 credit

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BIO-210	Anatomy and Physiology for Science Majors I	3 credits
BIO-210L	Anatomy and Physiology for Science Majors I Lab	1 credit
BIO-215	General Microbiology	3 credits
BIO-215L	General Microbiology Lab	1 credit
CHM-115	General Chemistry II-Lecture	3 credits
CHM-115L	General Chemistry II - Lab	1 credit
BIO-211	Anatomy and Physiology for Science Majors II	3 credits
BIO-211L	Anatomy and Physiology for Science Majors II Lab	1 credit
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II - Lab	1 credit
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit
BIO-335	Medical Terminology	2 credits
SCI-318	Research Methods & Design	2 credits
PHY-111	General Physics I-Lecture	3 credits
PHY-111L	General Physics I - Lab	1 credit
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
BIO-457^Δ	Genetics	4 credits
CHM-360[‡]	Principles of Biochemistry	3 credits
CHM-360L[‡]	Principles of Biochemistry - Lab	1 credit
PHY-112	General Physics II-Lecture	3 credits
PHY-112L	General Physics II - Lab	1 credit
BIO-483[‡]	Pathophysiology	4 credits
CHM-451	Pharmacology I	4 credits
SCI-495^{ΩΔ}	Capstone Project in the Sciences	4 credits
BIO-333[‡]	Molecular and Cellular Biology	4 credits
CHM-452	Pharmacology II	4 credits
Biology with an Emphasis in Pre-Physician Assistant Major		80 credits

Bachelor of Science in Chemistry

The Bachelor of Science (B.S.) in Chemistry conforms to the guidelines provided by the American Chemical Society (ACS) and offers students an interdisciplinary curriculum. The program provides a broad background in chemical science, through the lens of our Christian worldview, guided by the principles of social and ecological responsibility and humanitarianism. It is suitable for students planning careers in high-growth areas such as biotechnology and health care research or further training in graduate biomedical professional programs. Many graduates enter employment in the biomedical, biotechnology, pharmaceutical, environmental research and chemical industries. Others find work in university, government or hospital research laboratories.

Degree Requirements

Total General Education	34-40 credits
Total Chemistry Major	80 credits

Total Electives	0-6 credits
Total Bachelor of Science in Chemistry	120 credits

Required General Education

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
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Chemistry Major

CHM-113	General Chemistry I-Lecture	3 credits
CHM-113L	General Chemistry I – Lab	1 credit
CHM-115	General Chemistry II-Lecture	3 credits
CHM-115L	General Chemistry II – Lab	1 credit
SCI-150^Ω	Critical Analyses in Science	4 credits
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit
MAT-262	Calculus for Science and Engineering I	4 credits
MAT-274	Probability and Statistics	4 credits
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
MAT-264	Calculus for Science and Engineering II	4 credits
CHM-315[‡]	Analytical Chemistry	3 credits
CHM-315L[‡]	Analytical Chemistry Lab	1 credit
CHM-420^Δ	Environmental Chemistry	3 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I – Lab	1 credit
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
SCI-300L	Laboratory Safety and Supervision	1 credit
CHM-333	Structure Determination in Organic Chemistry	4 credits
CHM-360[‡]	Principles of Biochemistry	3 credits
CHM-360L[‡]	Principles of Biochemistry – Lab	1 credit
CHM-441	Physical Chemistry I	3 credits
CHM-441L	Physical Chemistry I Lab	1 credit
PHY-122[‡]	University Physics II	3 credits
PHY-122L[‡]	University Physics II Lab	1 credit
CHM-444	Physical Chemistry II	3 credits
CHM-444L	Physical Chemistry II Lab	1 credit
CHM-365[‡]	Instrumental Analysis	3 credits
CHM-365L[‡]	Instrumental Analysis Lab	1 credit
CHM-448	Inorganic Chemistry	3 credits
CHM-448L	Inorganic Chemistry Lab	1 credit
SCI-495^Δ	Capstone Project in the Sciences	4 credits

Chemistry Major	80 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Bachelor of Science in Chemistry for Secondary Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is offered by the College of Science, Engineering, and Technology in conjunction with teaching licensure requirement courses provided by the College of Education for students who are preparing for a teaching career in grades 7-12 and who are seeking initial teacher licensure. The format and courses of this regionally accredited and Arizona-approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles. Content courses are aligned to the standards of the National Science Teachers Association (NSTA). Opportunities are provided to apply concepts, theories, and research throughout the program. Assessments within many of the courses guide students through 85 hours of practicum/field experiences prior to student teaching, and the final semester of the program requires a full-time, 16-week student teaching component. Applicants to the program are responsible for contacting their state department of education for licensure requirements and program approval. Arizona or home state fingerprint/background clearance is required for all practicum/field experiences and student teaching. Furthermore, applicants should consult the Grand Canyon University Catalog, the University Policy Handbook, and an academic counselor to obtain information regarding current policies and procedures inherent in a teacher licensure program.

Degree Requirements

Total General Education	34-40 credits
Total Chemistry for Secondary Education Major	85 credits
Total Electives	0-6 credits
Total Bachelor of Science in Chemistry for Secondary Education	125 credits
Total Practicum/Field Experience	85 hours

Required General Education

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

SEC-201	Early Adolescent and Adolescent Psychology	4 credits
SCI-210	Historical Landmarks in the Natural Sciences	2 credits
SCI-211	Paradigm Shifts in the Natural Sciences	2 credits

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit

Chemistry for Secondary Education Major

CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
MAT-262	Calculus for Science and Engineering I	4 credits
EDU-330^A	Social Justice for Educators	4 credits

SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
MAT-264	Calculus for Science and Engineering II	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
ESL-445N	Methods of Structured English Immersion for Secondary Education	3 credits
POS-301	U.S. and Arizona Constitutions	2 credits
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
CHM-420^A	Environmental Chemistry	3 credits
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SCI-300L	Laboratory Safety and Supervision	1 credit
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
PHY-122[‡]	University Physics II	3 credits
PHY-122L[‡]	University Physics II Lab	1 credit
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
CHM-441	Physical Chemistry I	3 credits
CHM-441L	Physical Chemistry I Lab	1 credit
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
SCI-480	Methods of Teaching Science in Secondary Schools	4 credits
SEC-490	Student Teaching for Secondary Education	8 credits
Chemistry for Secondary Education Major		85 credits

Bachelor of Science in Environmental Science

Grand Canyon University's Bachelor of Science in Environmental Science prepares students for career options, which include but are not limited to: environmental and health scientist, consultant, analyst, manager, instructor, and researcher. Students also learn professional and ethical practices associated with environmental science through the lens of our Christian worldview, guided by the principles of social and ecological responsibility, and humanitarianism. Students will explore the problems and trends associated with environmental science and environmental health. Competencies include proficiency in the foundations of science, scientific communication, data mining and statistical modeling, environmental and human health regulations, environmental science, and environmental health. This program emphasizes critical thinking, real-world application, practical project experience, and the development of scientific acumen. In addition, students develop valuable workplace skills, including effective communication, teamwork,

^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

initiative, work ethic, analytical skills, adaptability and self-confidence.

Degree Requirements

Total General Education	34-40 credits
Total Environmental Science Major	75 credits
Total Electives	5-11 credits
Total Bachelor of Science in Environmental Science	120 credits

Environmental Science Major

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
BIO-220	Environmental Science	4 credits
MAT-261	Pre-Calculus	4 credits
BIO-205	Microbiology	3 credits
BIO-205L	Microbiology Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
PHY-111	General Physics I	3 credits
PHY-111L	General Physics I Lab	1 credit
BIO-320	Fundamentals of Ecology	3 credits
BIO-320L	Fundamentals of Ecology Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
MAT-274	Probability and Statistics	4 credits
ENV-301	Environmental Law	4 credits
CHM-235	Survey of Organic Chemistry	3 credits
CHM-235L	Survey of Organic Chemistry Lab	1 credit
CHM-420^Δ	Environmental Chemistry	3 credits
ENV-303	Environmental Geology	4 credits
ENV-300	Environmental and Human Health Risk Assessment	4 credits
ENV-305	Environmental Management and Sustainability	4 credits
CHM-315	Analytical Chemistry	3 credits
CHM-315L	Analytical Chemistry Lab	1 credit
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
ENV-402	Chemical Investigation and Remediation Strategies	3 credits
ENV-402L	Chemical Investigation and Remediation Strategies Lab	1 credit
SCI-495	Capstone Project in the Sciences	4 credits

Environmental Science Major 75 credits

Bachelor of Science in Exercise Science with an Emphasis in Health Education

The Bachelor of Science in Exercise Science with an Emphasis in Health Education program involves the study of the anatomical, kinesiological, and physiological principles and processes of human movement. This includes a focus on the link between physical activity and improved health outcomes with

foundational knowledge of behavior change, basic nutrition, and sports nutrition. The emphasis in health education offers a blend of classroom instruction and clinical experience designed to prepare students for entry into the fitness industry as personal trainers or strength coaches, health and fitness instructors, or exercise leaders. This includes preparation for careers in corporate wellness centers, government medical wellness programs, outpatient care centers, and other careers in the wellness field. The program provides practical experience and aligns to the body of knowledge provided by organizations such as the American College of Sports Medicine, the National Strength and Conditioning Association, the National Academy of Sports Medicine, and/or the National Commission for Health Education Credentialing (CHES). Students learn professional and ethical practices associated with this field of study as seen through the lens of a Christian worldview. This emphasis will also provide competency in personal and group health instruction to prepare students as health and wellness educators. This career path is for anyone who wants to work directly with students or clients in the areas of disease prevention, physical fitness, wellness, and health enhancement. This program is not a teacher certification program.

Degree Requirements

Total General Education	34-40 credits
Total Exercise Science with an Emphasis in Health Education Major	72 credits
Total Electives	8-16 credits
Total Bachelor of Science in Exercise Science with an Emphasis in Health Education	120 credits

Exercise Science with an Emphasis in Health Education Major

PED-200	Lifetime Personal Wellness and Teaching of Fitness	4 credits
EXS-200	Resistance Training: Theory and Practice	3 credits
EXS-200L	Resistance Training: Theory and Practice Lab	1 credit
EXS-202	Cardiovascular Fitness: Theory and Practice	3 credits
EXS-202L	Cardiovascular Fitness: Theory and Practice Lab	1 credit
COM-222	Small Group Communications	4 credits
BIO-155	Introduction to Anatomy and Physiology	3 credits
BIO-155L	Introduction to Anatomy and Physiology Lab	1 credit
EXS-247	Health Risk Appraisal, Weight Control, and Management	4 credits
HLT-485	Methods of Teaching Health and Measuring in Exercise Science	4 credits
EXS-235	Exercise Testing and Prescription	4 credits
BIO-319	Applied Nutrition	4 credits
EXS-340^Δ	Physiology of Exercise	3 credits
EXS-340L^Δ	Physiology of Exercise Lab	1 credit
EXS-344	Exercise Science: Special Populations	4 credits
EXS-430^Δ	Health Promotion	4 credits
EXS-335	Kinesiology	3 credits

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

EXS-335L	Kinesiology Lab	1 credit
EXS-431	Health Assessment	4 credits
HLT-411	Global Health Issues	4 credits
EXS-316	Health Management and Administration	4 credits
EXS-432	Health Planning & Implementation	4 credits
EXS-441	Epidemiological Research	4 credits

Exercise Science with an Emphasis in Health Education Major 72 credits

Bachelor of Science in Exercise Science with an Emphasis in Sports Performance

The Bachelor of Science in Exercise Science with an Emphasis in Sports Performance program involves the study of the anatomical, kinesiological, and physiological principles and processes of human movement. This includes a focus on the link between physical activity and improved health outcomes with foundational knowledge of behavior change, basic nutrition, and sports nutrition. The emphasis in sports performance focuses on the application of this study to improving performance in sports-related activities with numerous hands-on laboratory courses in which students apply and practice skills studied in didactic courses. Students learn professional and ethical practices associated with this field of study as seen through the lens of a Christian worldview. Students in this program will be well versed in the knowledge and skills necessary for entering the field as fitness professionals. The program provides practical experience and aligns to the body of knowledge provided by organizations such as the American College of Sports Medicine, the National Strength and Conditioning Association, and/or National Academy of Sports Medicine. Options for students to continue their education include post-baccalaureate degrees such as athletic training, physical therapy, physical assistant, occupational therapy, medicine, kinesiology, exercise physiology, or fitness and wellness.

Degree Requirements

Total General Education	34-40 credits
Total Exercise Science with an Emphasis in Sports Performance Major	72 credits
Total Electives	8-14 credits
Total Bachelor of Science in Exercise Science with an Emphasis in Sports Performance	120 credits

Exercise Science with an Emphasis in Sports Performance Major

PED-200	Lifetime Personal Wellness and Teaching of Fitness	4 credits
EXS-200	Resistance Training: Theory and Practice	3 credits
EXS-200L	Resistance Training: Theory and Practice Lab	1 credit
EXS-202	Cardiovascular Fitness: Theory and Practice	3 credits
EXS-202L	Cardiovascular Fitness: Theory and Practice Lab	1 credit
COM-222	Small Group Communication	4 credits
BIO-155	Introduction to Anatomy and Physiology	3 credits

BIO-155L	Introduction to Anatomy and Physiology Lab	1 credit
EXS-247	Health Risk Appraisal, Weight Control & Management	4 credits
BIO-319	Applied Nutrition	4 credits
HLT-485	Methods of Teaching Health and Measuring in Exercise Science	4 credits
EXS-235	Exercise Testing and Prescription	4 credits
EXS-340^Δ	Exercise Physiology	3 credits
EXS-340L^Δ	Exercise Physiology Lab	1 credit
EXS-430^Δ	Health Promotion	4 credits
EXS-344	Exercise Science: Special Populations	4 credits
EXS-335	Kinesiology	3 credits
EXS-335L	Kinesiology Lab	1 credit
EXS-318	Principles of Corrective Exercises	4 credits
EXS-428	Biomechanics and Sports Nutrition	4 credits
EXS-316	Health Management and Administration	4 credits
EXS-455	Advanced Principles of Sports Performance	3 credits
EXS-455L	Advanced Principles of Sports Performance Lab	1 credit
EXS-481	Sports Performance Capstone	4 credits

Exercise Science with an Emphasis in Sports Performance Major 72 credits

Bachelor of Science in Exercise Science with an Emphasis in Sports Performance *Effective August 2020*

The Bachelor of Science in Exercise Science with an Emphasis in Sports Performance program involves the study of the anatomical, kinesiological, and physiological principles and processes of human movement. This includes a focus on the link between physical activity and improved health outcomes with foundational knowledge of behavior change, basic nutrition, and sports nutrition. The emphasis in sports performance focuses on the application of this study to improving performance in sports-related activities with numerous hands-on laboratory courses in which students apply and practice skills studied in didactic courses. Students learn professional and ethical practices associated with this field of study as seen through the lens of a Christian worldview. Students in this program will be well versed in the knowledge and skills necessary for entering the field as fitness professionals. The program provides practical experience and aligns to the body of knowledge provided by organizations such as the American College of Sports Medicine, the National Strength and Conditioning Association, and/or National Academy of Sports Medicine. Options for students to continue their education include post-baccalaureate degrees such as athletic training, physical therapy, physical assistant, occupational therapy, medicine, kinesiology, exercise physiology, or fitness and wellness.

Degree Requirements

Total General Education	34-40 credits
Total Exercise Science with an Emphasis in Sports Performance Major	60 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

Total Electives	20-26 credits
Total Bachelor of Science in Exercise Science with an Emphasis in Sports Performance	120 credits
Exercise Science with an Emphasis in Sports Performance Major	
NSC-150 Nutrition and Wellness	4 credits
EXS-485 Research Methods in Exercise Science	4 credits
EXS-250 Resistance Training and Cardiovascular Fitness	3 credits
EXS-250L Resistance Training and Cardiovascular Fitness Lab	1 credit
EXS-430 ^Δ Health Promotion	4 credits
BIO-201 Human Anatomy and Physiology I	3 credits
BIO-201L Human Anatomy and Physiology I: Lab	1 credit
EXS-210 Sports Performance Science and Coaching	3 credits
EXS-210L Sports Performance Science and Coaching Lab	1 credit
EXS-344 Exercise Science: Special Populations	4 credits
BIO-202 Human Anatomy and Physiology II	3 credits
BIO-202L Human Anatomy and Physiology II-Lab	1 credit
EXS-340 ^Δ Exercise Physiology	3 credits
EXS-340L [‡] Exercise Physiology Lab	1 credit
EXS-305 Motor Control and Motor Learning	4 credits
EXS-335 Kinesiology	3 credits
EXS-335L Kinesiology Lab	1 credit
EXS-481 ^Ω Sports Performance Capstone	4 credits
EXS-455 Advanced Principles of Sports Performance	3 credits
EXS-455L Advanced Principles of Sports Performance Lab	1 credit
EXS-318 Principles of Corrective Exercises	4 credits
EXS-491 Applied Exercise Science	4 credits
Exercise Science with an Emphasis in Sports Performance Major	60 credits

Bachelor of Science in Forensic Science

The Bachelor of Science in Forensic Science is designed for students who are interested in analyzing or collecting and processing biological evidence related to various types of legal and other investigations. The emphasis builds on a solid foundation of biology and chemistry, and provides additional training in criminal investigation, forensic biology, forensic human pathology, serology, and forensic DNA analysis. The program provides excellent preparation for graduate work in specialized areas of forensics. Forensic science students receive extensive training in the collection and analysis of biological evidence in both lab and field settings. Students learn how to evaluate mock crime scenes and how to document, collect, and analyze the biological evidence to establish the time and cause of death. With the rapid advances in biology, and because of the precision of the science, courts are apportioning greater weight to

forensic evidence. Employment growth in state and local government should be driven by the increasing application of forensic science techniques—such as DNA analysis—to examine, solve, and prevent crime. This has created a critical need for personnel with specialized training in the field. Individuals who earn a bachelor's degree may seek employment in various private or public forensic science and conventional analytical laboratories. Students with sufficient work experience could eventually qualify for positions as laboratory supervisors, managers, or directors. Graduates will also find the program very useful in pursuing future studies at the master's or Ph.D. level.

Degree Requirements

Total General Education	34-40 credits
Total Forensic Science Major	76 credits
Total Electives	4-10 credits
Total Bachelor of Science in Forensic Science	120 credits

Required General Education

(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261 Pre-Calculus	4 credits
MAT-274 Probability and Statistics	4 credits
MAT-351 Calculus for Biomedical Sciences	4 credits

Forensic Science Major

SCI-150 ^Ω Critical Analyses in Science	4 credits
BIO-181 General Biology I	3 credits
BIO-181L General Biology I Lab	1 credit
CHM-113 General Chemistry I – Lecture	3 credits
CHM-113L General Chemistry I – Lab	1 credit
BIO-210 Anatomy and Physiology for Science Majors I	3 credits
BIO-210L Anatomy and Physiology for Science Majors I Lab	1 credit
CHM-115 General Chemistry II – Lecture	3 credits
CHM-115L General Chemistry II – Lab	1 credit
SCI-220 Forensic Photography & Reconstruction	4 credits
CHM-231 Organic Chemistry I	3 credits
CHM-231L Organic Chemistry I Lab	1 credit
BIO-333 [‡] Molecular and Cellular Biology	4 credits
SCI-255 Crime Scene Processing	3 credits
SCI-255L Crime Scene Processing Lab	1 credit
PHY-111 General Physics I – Lecture	3 credits
PHY-111L General Physics I – Lab	1 credit
CHM-232 Organic Chemistry II	3 credits
CHM-232L Organic Chemistry II Lab	1 credit
CHM-360 [‡] Principles of Biochemistry	3 credits
CHM-360L [‡] Principles of Biochemistry – Lab	1 credit
SCI-330 Physical Evidence Analysis	3 credits
SCI-330L Physical Evidence Analysis Lab	1 credit
PHY-112 General Physics II – Lecture	3 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

PHY-112L	General Physics II – Lab	1 credit
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
BIO-457[‡]	Genetics	4 credit
SCI-498^Ω	Senior Capstone in Forensic Science	4 credits
BIO-460	Toxicology	4 credits
BIO-440[‡]	Body Fluid and DNA Analysis	4 credits
Forensic Science Major		76 credits

Bachelor of Science in Nutritional Sciences

Grand Canyon University's Bachelor of Science in Nutritional Sciences prepares students for graduate studies and/or careers in a wide range of fields that utilize nutritional principles and provide the foundation to develop as nutrition, healthcare, fitness, and education professionals. Possible career paths include: nutritionists, nutrition technicians, dietitians, nutritional and health education/outreach professionals, medical and other health professionals, and fitness professionals. Because this is a greatly expanding area, students will find career opportunities in education, commercial, and corporate industries, as well as in government and non-profit sectors. Students completing the Bachelor of Science in Nutritional Sciences will understand and demonstrate competency in a broad body of knowledge that includes the domains of food science, biochemistry, physiology, dietetics, and nutrition studies. Students will also learn about professional and ethical practices associated with nutrition, all presented through the lens of a Christian worldview.

Degree Requirements

Total General Education	34-40 credits
Total Nutritional Sciences Major	64 credits
Total Electives	4-10 credits
Total Bachelor of Science in Nutritional Sciences	120 credits

Required General Education

(Included in General Education total credits, applied to the Global Awareness competency.)

PSY-102	General Psychology	4 credits
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Nutritional Sciences Major

NSC-150	Nutrition and Wellness	4 credits
BIO-191	Applied Anatomy and Physiology I	3 credits
BIO-191L	Applied Anatomy and Physiology I Lab	1 credit
CHM-110	General and Organic Chemistry	3 credits
CHM-110L	General and Organic Chemistry Lab	1 credit
BIO-192	Applied Anatomy and Physiology II	3 credits
BIO-192L	Applied Anatomy and Physiology II Lab	1 credit
CHM-111	General and Organic Chemistry II	3 credits
CHM-111L	General and Organic Chemistry II Lab	1 credit
BIO-195	Fundamental Microbiology	3 credits

BIO-195L	Fundamental Microbiology Lab	1 credit
MAT-274	Probability and Statistics	4 credits
BIO-319	Applied Nutrition	4 credits
CHM-350	Fundamental Biochemistry	3 credits
CHM-350L	Fundamental Biochemistry Lab	1 credit
NSC-305[‡]	Nutrition Across the Lifespan	4 credits
PSY-357	Lifespan Development	4 credits
NSC-350	Food Sciences	3 credits
NSC-350L	Food Sciences Lab	1 credit
PSY-352	Health Psychology	4 credits
NSC-490^Δ	Nutrition Research	4 credits
NSC-419	Advanced Nutrition	4 credits
NSC-495^{ΩΔ‡}	Capstone in Nutrition	4 credits
Nutritional Sciences Major		64 credits

Bachelor of Science in Physical Education

This program is offered by the College of College of Science, Engineering, and Technology in conjunction with the College of Education for students who are preparing for a teaching career in grades K-12, and who are seeking initial teacher licensure. The format and courses of this regionally accredited and Arizona approved program are designed to maximize the content knowledge that the teacher candidate will possess upon graduation. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles. Content courses are aligned to the national standards for Physical Education Teacher (PETE) as established by SHAPE America, the national organization for Physical Education. Opportunities are provided to apply concepts, theories, and research throughout the program. Applicants to the program are responsible for contacting their desired state's department of education for licensure requirements and program approval. Arizona fingerprint/background clearance is required for all practicum/field experiences and student teaching. Furthermore, applicants should consult the University Policy Handbook and a Student Service Advisor (SSA) to obtain information regarding current policies and procedures inherent in a teacher licensure program.

Degree Requirements

Total General Education	34-40 credits
Total Physical Education Major	77 credits
Total Electives	3-9 credits
Total Bachelor of Science in Physical Education	120 credits

Physical Education Major

PED-247	Teaching Strategy in Physical Education and Exercise Science	4 credits
BIO-155	Introduction to Anatomy and Physiology	3 credits
BIO-155L	Introduction to Anatomy and Physiology Lab	1 credit
PED-251	Teaching of Team Sports and Individual Activities I	4 credits
POS-301	Arizona and Federal Government	2 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

PED-263	Teaching of Team Sports and Individual Activities II	4 credits
EDU-225	Instructional Technology	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
PED-275	Teaching Fitness and Wellness	4 credits
EXS-340	Physiology of Exercise	3 credits
EXS-340L	Physiology of Exercise-Lab	1 credit
EDU-330	Social Justice for Educators	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
PED-420	Physical Education Teacher Education Methods: Elementary Grades	4 credits
PED-430	Physical Education Teacher Education Methods: Middle Grades	4 credits
EXS-335[‡]	Kinesiology	3 credits
EXS-335L[‡]	Kinesiology Lab	1 credit
PED-370	Physical Education for Students with Disabilities	4 credits
PED-440	Physical Education Teacher Education Methods: Secondary Grades	4 credits
PED-450[‡]	Methods of Teaching and Assessing Health	4 credits
PED-480A^Ω	Physical Education Student Teaching I	6 credits
PED-480B^Ω	Physical Education Student Teaching II	6 credits
Physical Education Major		77 credits

Master of Science in Biology with an Emphasis in Education

The Master of Science in Biology with an Emphasis in Education prepares students for teaching undergraduate courses at a 2-year or 4-year institution in both ground and online modalities. Balancing biology content with pedagogy and classroom techniques, this unique program offers a pathway to obtaining advanced training in the field of biology while satisfying the requirements for ongoing professional development. Graduates of this program will be able to fulfill the graduate course requirements necessary for opportunities in teaching at the post-secondary level. Admission to the program requires a minimum of 24 UG credits in Biology content coursework (pedagogical or instructional design content will not count).

Degree Requirements

UNV-507^Ω	Introduction to Graduate Studies in CSET	2 credits
BIO-505	A Comprehensive Overview of Phylogenetics and Ecology	4 credits
BIO-510	A Comprehensive Overview of Cell and Molecular Biology	4 credits
EDU-534	Effective Pedagogy for Higher Education	4 credits
BIO-515	Concepts of Human Physiology I	4 credits
BIO-520	Concepts of Human Physiology II	4 credits
EDU-548	Curricular and Instructional Methods in Higher Education	4 credits

BIO-525	Concepts of Medical Microbiology	4 credits
CHM-550	Concepts of Biochemistry	4 credits
Master of Science in Biology with an Emphasis in Education		34 credits

Master of Science in Chemistry with an Emphasis in Education

The Master of Science in Chemistry with an Emphasis in Education prepares students for teaching undergraduate courses at a 2-year or 4-year institution in both ground and online modalities. Balancing chemistry content with pedagogy and classroom techniques, this unique program offers a pathway to obtaining advanced training in the field of chemistry while satisfying the requirements for ongoing professional development. Graduates of this program will be able to fulfill the graduate course requirements necessary for opportunities in teaching at the postsecondary level. Admission to the program requires a minimum of 24 UG credits in Chemistry content coursework (pedagogical or instructional design content will not count) including a least one full year of organic chemistry and a semester of biochemistry.

Degree Requirements

UNV-507^Ω	Introduction to Graduate Studies in CSET	2 credits
CHM-505	Concepts of Medicinal Chemistry	4 credits
CHM-510	Concepts of Physical Chemistry	4 credits
EDU-534	Effective Pedagogy for Higher Education	4 credits
CHM-515	Concepts of Inorganic Chemistry	4 credits
CHM-520	Concepts of Analytical Chemistry	4 credits
EDU-548	Curricular and Instructional Methods in Higher Education	4 credits
CHM-525	Current Topics in Chemistry	4 credits
CHM-530	Concepts of Biochemistry	4 credits
Master of Science in Chemistry with an Emphasis in Education		34 credits

Technology Programs

Bachelor of Science in Computer Programming

Grand Canyon University's Bachelor of Science in Computer Programming prepares students for career options, which include computer programmer, computer systems analyst, computer and information system manager, geospatial information technologist, software application developer, systems programmer, web application developer, and others. Students also learn professional and ethical practices associated with computing through the lens of our Christian worldview, guided by the principles of social justice and humanitarianism. Students will explore the problems and trends associated with the management of databases, and gain fundamental knowledge in the design of enterprise, network, and cloud-based applications. Competencies include proficiency in a variety of programming languages, using enterprise programming tools, secure programming, and building database driven and distributed information systems. In addition, this program enables students who already have a professional foundation in programming to develop leadership, managerial, and strategic planning skills for continuous career growth. This program emphasizes business entrepreneurship, critical thinking,

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

real-world application, practical project experience, and the development of business acumen. Students become mindful of the uneven distribution of computing resources across segments of society and learn to design applications capable of running on lower-end devices. Thus, students develop awareness that providing useful solutions to those with lesser means sometimes trumps the chase for best performance and feature set. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, work ethic, analytical skills, adaptability and self-confidence.

Degree Requirements

Total General Education	34-40 credits
Total Computer Programming Major	60 credits
Total Electives	20-26 credits
Total Bachelor of Science in Computer Programming	120 credits

Required General Education

(Included in General Education totals credits, applied to the Effective Communication competency.)

CST-326^A	Written and Verbal Communication for Software Development	4 credits
STG-390^A	Professionalism in Science & Technology: Communications, Conduct, and Ethics	4 credits

(Included in General Education totals credits, applied to the Critical Thinking competency.)

CST-361	Design Patterns in Java	4 credits
CST-424	Research Methods	4 credits

(Included in General Education totals credits, applied to the Global Awareness competency.)

ITT-415[‡]	IT Business Case Planning for Global Enterprise	4 credits
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Computer Programming Major

CST-105	Computer Programming I	4 credits
CST-117	Enterprise Applications Programming I	4 credits
CST-126	Database Application Programming I	4 credits
CST-135	Computer Programming II	4 credits
CST-227	Enterprise Applications Programming II	4 credits
CST-236	Database Application Programming II	4 credits
CST-235	Computer Programming III	4 credits
CST-247	Enterprise Applications Programming III	4 credits
CST-201	Algorithms and Data Structures	4 credits
CST-256	Database Application Programming III	4 credits
CST-341[‡]	Open Source Computing	4 credits
CST-221	Operating Systems Concepts	4 credits
CST-323	Cloud Computing	4 credits
ITT-307	Cybersecurity Foundations	4 credits
CST-451^{ΩA}	Senior Project I	2 credits

CST-452^{ΩA}	Senior Project II	2 credits
Computer Programming Major		60 credits

Bachelor of Science in Computer Science with an Emphasis in Big Data Analytics

Grand Canyon University's Bachelor of Science in Computer Science with an Emphasis in Big Data and Analytics prepares students for career options which include computer systems analyst, networks specialist, database manager, programmer and software engineer. Students learn algorithms, discrete structures, programming languages, software development, networks, operating systems and computing systems fundamentals. Students also learn professional and ethical practices associated with computing through the lens of our Christian worldview. Students will explore the problems and trends associated with the management of huge volumes of data, gaining fundamental knowledge in the design of highly scalable systems that can collect, process, store and analyze large volumes of unstructured data. Competencies include large scale data processing, data mining and interpretation, pattern analysis and data-based decision making. This program integrates math, chemistry, physics and biology and emphasizes critical thinking, real-world application and practical project experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. Students entering the Bachelor of Science in Computer Science with an Emphasis in Big Data and Analytics program should possess knowledge of algebra and common office software applications.

Degree Requirements

Total General Education	34-40 credits
Total Computer Science with an Emphasis in Big Data Analytics Major	88 credits
Total Electives	0-6 credits
Total Bachelor of Science in Computer Science with an Emphasis in Big Data Analytics	128 credits

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

CST-320^A	Human-Computer Interaction and Communication & Lab	4 credits
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(Included in General Education totals credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits

The following Critical Thinking course content can be met with any lab science course

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit

(Included in General Education totals credits, applied to the Effective Communication competency.)

STG-390	Professionalism in Science & Technology – Communications, Conduct, and Ethics	4 credits
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^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Computer Science with an Emphasis in Big Data Analytics Major

CST-105	Computer Programming I	4 credits
CST-210	Object Oriented Programming & Lab	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
MAT-264	Calculus for Science and Engineering II	4 credits
CST-215	Digital Logic and Design Lecture & Lab	4 credits
CST-201	Algorithms and Data Structures	4 credits
CST-217	Principles of Database Design and Programming Lecture & Lab	4 credits
MAT-345	Applied Linear Algebra I	4 credits
MAT-374	Calculus Based Probability and Statistics	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
CST-305	Principles of Modeling and Simulation & Lab	4 credits
CST-315	Operating Systems & Lab	4 credits
CST-301	Principles of Programming Languages Lecture and Lab	4 credits
CST-310	Computer Graphics & Lab	4 credits
STG-451 ^{ΩA}	Capstone Project I	2 credits
ITT-305	Information Security I	2 credits
CST-405	Principles of Compiler Design & Lab	4 credits
CST-425	Very Large Information Systems & Lab	4 credits
CST-435	Search Engines and Data Mining & Lab	4 credits
STG-452 ^{ΩA}	Capstone Project II	2 credits
ITT-306	Information Security II	2 credits
CST-440	Analytics for Dynamic Social Networks & Lab	4 credits
CST-461	Current Trends in Computer Science Lecture and Lab	4 credits
ENT-436	Entrepreneurship and Innovation	4 credits

Computer Science with an Emphasis in Big Data Analytics Major 88 credits

Bachelor of Science in Computer Science with an Emphasis in Business Entrepreneurship

Grand Canyon University's Bachelor of Science in Computer Science with an Emphasis in Business Entrepreneurship prepares students for career options which include computer systems analyst, networks specialist, database manager, programmer and software engineer. Students learn algorithms, discrete structures, programming languages, software development, networks, operating systems and computing systems fundamentals. Students also learn professional and ethical practices associated with computing through the lens of our Christian worldview. This emphasis provides a foundation for business leaders and innovators of new technologies and business processes. Graduates will learn how to plan and manage projects, grow business opportunities, identify market opportunities and

commercialize original products and services. They will also learn the best practices for creating innovative work environments and the importance of societal wealth ventures, social responsibility and community outreach. This program integrates math, chemistry, physics and biology and emphasizes critical thinking, real-world application and practical project experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. Students entering the Bachelor of Science in Computer Science with an Emphasis in Business Entrepreneurship program should possess knowledge of algebra and common office software applications.

Degree Requirements

Total General Education	34-40 credits
Total Computer Science with an Emphasis in Business Entrepreneurship	88 credits
Total Electives	0-6 credits
Total Bachelor of Science in Computer Science with an Emphasis in Business Entrepreneurship	128 credits

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

CST-320 ^A	Human-Computer Interaction and Communication & Lab	4 credits
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(Included in General Education totals credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits

The following Critical Thinking course content can be met with any lab science course

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit

(Included in General Education totals credits, applied to the Effective Communication competency.)

STG-390	Professionalism in Science & Technology – Communications, Conduct, and Ethics	4 credits
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Computer Science with an Emphasis in Business Entrepreneurship Major

CST-105	Computer Programming I	4 credits
CST-210	Object Oriented Programming & Lab	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
MAT-264	Calculus for Science and Engineering II	4 credits
CST-215	Digital Logic and Design Lecture & Lab	4 credits
CST-201	Algorithms and Data Structures	4 credits
CST-217	Principles of Database Design and Programming Lecture & Lab	4 credits
MAT-345	Applied Linear Algebra I	4 credits

^A Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MAT-374	Calculus Based Probability and Statistics	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
CST-305	Principles of Modeling and Simulation & Lab	4 credits
CST-315	Operating Systems & Lab	4 credits
CST-301	Principles of Programming Languages Lecture and Lab	4 credits
CST-310	Computer Graphics & Lab	4 credits
STG-451 ^{ΩA}	Capstone Project I	2 credits
ITT-305	Information Security I	2 credits
CST-405	Principles of Compiler Design & Lab	4 credits
STG-452 ^{ΩA}	Capstone Project II	2 credits
ITT-306	Information Security II	2 credits
CST-461	Current Trends in Computer Science Lecture and Lab	4 credits
ENT-436	Entrepreneurship and Innovation	4 credits
ENT-446	Business Execution	4 credits
MGT-440	Project Management	4 credits
ENT-420	New Venture Financing	4 credits
Computer Science with an Emphasis in Business Entrepreneurship Major		88 credits

Bachelor of Science in Computer Science with an Emphasis in Game and Simulation Development

Grand Canyon University's Bachelor of Science in Computer Science with an Emphasis in Game and Simulation Development prepares students for career options which include computer systems analyst, networks specialist, database manager, programmer and software engineer. Students learn algorithms, discrete structures, programming languages, software development, networks, operating systems and computing systems fundamentals. Students also learn professional and ethical practices associated with computing through the lens of our Christian worldview. This emphasis provides additional preparation in areas of graphic visualization, game development, computer modeling, and simulations with applications for entertainment, educational or scientific purposes. Students will augment a foundational skillset with knowledge of the design, development and production of computer games and related applications. Competencies include visualization, gaming design, artificial intelligence implementation and development for mobile device applications. This program integrates math, chemistry, physics and biology and emphasizes critical thinking, real-world application and practical project experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. Students entering the Bachelor of Science in Computer Science with an Emphasis in Game and Simulation Development program should possess knowledge of algebra and common office software applications.

Degree Requirements

Total General Education	34-40 credits
Total Computer Science with an Emphasis in Game and Simulation Development Major	88 credits

Total Electives	0-6 credits
Total Bachelor of Science in Computer Science with an Emphasis in Game and Simulation Development	128 credits

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

CST-320 ^A	Human-Computer Interaction and Communication & Lab	4 credits
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(Included in General Education totals credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits

The following Critical Thinking course content can be met with any lab science course

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit

(Included in General Education totals credits, applied to the Effective Communication competency.)

STG-390	Professionalism in Science & Technology – Communications, Conduct, and Ethics	4 credits
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Computer Science with an Emphasis in Game and Simulation Development Major

CST-105	Computer Programming I	4 credits
CST-210	Object Oriented Programming & Lab	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
MAT-264	Calculus for Science and Engineering II	4 credits
CST-215	Digital Logic and Design Lecture & Lab	4 credits
CST-201	Algorithms and Data Structures	4 credits
CST-217	Principles of Database Design and Programming Lecture & Lab	4 credits
MAT-345	Applied Linear Algebra I	4 credits
MAT-374	Calculus Based Probability and Statistics	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
CST-305	Principles of Modeling and Simulation & Lab	4 credits
CST-315	Operating Systems & Lab	4 credits
CST-301	Principles of Programming Languages Lecture and Lab	4 credits
CST-310	Computer Graphics & Lab	4 credits
STG-451 ^{ΩA}	Capstone Project I	2 credits
CST-405	Principles of Compiler Design & Lab	4 credits
CST-415	AI in Games and Simulations Lecture & Lab	4 credits
CST-410	Game design and Game Play Lecture & Lab	4 credits

^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ITT-305	Information Security	2 credits
STG-452^{ΩA}	Capstone Project II	2 credits
CST-416	Mobile Game Development Lecture & Lab	4 credits
ITT-306	Information Security II	2 credits
CST-461	Current Trends in Computer Science Lecture and Lab	4 credits
ENT-436	Entrepreneurship and Innovation	4 credits

Computer Science with an Emphasis in Game and Simulation Development Major 88 credits

Bachelor of Science in Cybersecurity

Grand Canyon University's Bachelor of Science in Cybersecurity was developed with industry guidance to address the broad, foundational knowledge and skills necessary to be contributors as Cybersecurity Technician, Security Operation Center Analysts, Penetration Testers, Malware Analysts, and Digital Forensic Technician. This program teaches topics and assesses competency in all aspects of defensive and offensive cybersecurity, cyber law, and cyber ethics, in addition to information assurance foundations, digital forensic investigations, malware reverse engineering, wireless security, security architecture design, security frameworks, and secure system administration. This program emphasizes critical thinking, real-world application and practical project management project experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. Students learn professional and ethical practices associated with engineering through the lens of our Christian worldview.

Degree Requirements

Total General Education	34-40 credits
Total Cybersecurity Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Science in Cybersecurity	120 credits

Required General Education

(Included in General Education totals credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

CYB-420[†]	Global Perspectives on Cyberwarfare	4 credits
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Cybersecurity Major

CST-111	Introduction to Computer Science and Information Technology	4 credits
CYB-201	Algorithms and Discrete Mathematics for Cybersecurity	4 credits
ITT-116	Platforms and Network Technologies	4 credits
ITT-121	System Administration and Maintenance	4 credits
ITT-270	Routing and Switching	4 credits
ITT-210	Low Level Programming	4 credits
ITT-307	Cybersecurity Foundations	4 credits
CYB-220	Cyberlaw and Privacy in a Digital Age	4 credits
ITT-310	Programming for Security Professionals	4 credits

ITT-370	Wireless Networks	4 credits
ITT-340	Cybersecurity and Ethical Hacking	4 credits
STG-390^Δ	Professionalism in Science & Technology-Communications, Conduct and Ethics	4 credits
CYB-320	Malware Analysis	4 credits
ITT-380	Information Assurance	4 credits
CYB-350	Social Aspects of Cybersecurity	4 credits
ITT-375	Cyber Forensic Investigations	4 credits
ITT-415[†]	IT Business Case Planning for Global Enterprise	4 credits
ITT-430	Security Driven Systems Administration	4 credits
ITT-455^{ΔΩ}	IT Project	4 credits
ITT-425	Analysis, Design, and Management of Secure Corporate Networks	4 credits

Cybersecurity Major 80 credits

Bachelor of Science in Information Technology

Grand Canyon University's Bachelor of Science in Information Technology prepares students for career options which include information systems manager, information security specialist, IT project manager, network support specialist, systems programmer, IT instructor, and system integrator. Students learn platform technologies, networking, information assurance, security and management, programming fundamentals, cloud computing, and web systems and technologies. Students also learn professional and ethical practices associated with information technology through the lens of our Christian worldview. Students will be prepared to enter careers in the rapidly expanding field of information technology. The program provides an understanding of the value of information technology and how it can improve the performance and efficiency, and lower cost of enterprise systems. Graduates will utilize technology to improve the deployment, configuration, and management of technologies using a variety of local and cloud-based platforms. Competencies include knowledge about IT-driven business, software technology and tools, enterprise information systems, and cyber-security. This program provides preparation in problem-solving using technology, with a focus on applied, hands-on activities, leveraging learners' current experience and certifications. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. Students entering the Bachelor of Science in Information Technology program should possess knowledge of algebra and common office software applications.

Degree Requirements

Total General Education	34-40 credits
Total Information Technology Major	52 credits
Total Electives	28-34 credits
Total Bachelor of Science in Information Technology	120 credits

Information Technology Major

CST-111	Introduction to Computer Science and Information Technology	4 credits
ITT-116	Platforms and Network Technologies	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ITT-121	System Administration and Maintenance	4 credits
ITT-270	Routing and Switching	4 credits
ITT-307	Cybersecurity Foundations	4 credits
SYM-400	Introduction to Database Structures	4 credits
BIT-415	IT Project Management	4 credits
ITT-370	Wireless Networks	4 credits
STG-390 ^Δ	Professionalism in Science & Technology-Communications, Conduct and Ethics	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
ITT-415 ^{Δf}	IT Business Case Planning for Global Enterprise	4 credits
ITT-430	Security Driven Systems Administration	4 credits
ITT-455 ^{Δf Ω}	IT Project	4 credits
Information Technology Major		52 credits

Bachelor of Science in Information Technology with an Emphasis in Cybersecurity

Grand Canyon University's Bachelor of Science in Information Technology with an emphasis in Cyber Security prepares students for career options which include information systems manager, information security specialist, IT project manager, network support specialist, systems programmer, IT instructor, and system integrator. Students learn platform technologies, networking, information assurance, security and management, programming fundamentals, cloud computing, and web systems and technologies. Students also learn professional and ethical practices associated with information technology through the lens of our Christian worldview. Students will be prepared to enter careers in the rapidly expanding field of information technology. The program provides an understanding of the value of information technology and how it can improve the performance and efficiency, and lower cost of enterprise systems. Graduates will utilize technology to improve the deployment, configuration, and management of technologies using a variety of local and cloud-based platforms. Competencies include knowledge about IT-driven business, software technology and tools, enterprise information systems, and cyber-security. This program provides preparation in problem-solving using technology, with a focus on applied, hands-on activities, leveraging learners' current experience and certifications. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. The Cyber Security Emphasis exposes students to the relationships between cyber defense, cyber operations, and cyber law. Students acquire working knowledge of processes and goals of cyber forensics and develop plans and strategies for security architectures. The emphasis culminates with an IT capstone project in cybersecurity. Students entering the Bachelor of Science in Information Technology with an Emphasis in Cyber Security program should possess knowledge of algebra and common office software applications.

Degree Requirements

Total General Education	34-40 credits
Total Information Technology with an Emphasis in Cybersecurity Major	64 credits

Total Electives	16-22 credits
Total Bachelor of Science in Information Technology with an Emphasis in Cybersecurity	120 credits

Information Technology with an Emphasis in Cybersecurity Major

CST-111	Introduction to Computer Science and Information Technology	4 credits
ITT-116	Platforms and Network Technologies	4 credits
ITT-121	System Administration and Maintenance	4 credits
ITT-270 ^f	Routing and Switching	4 credits
ITT-307	Cybersecurity Foundations	4 credits
SYM-400	Introduction to Database Structures	4 credits
BIT-415 ^Δ	IT Project Management	4 credits
ITT-370	Wireless Networks	4 credits
ITT-340	Cybersecurity and Ethical Hacking	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
ITT-415 ^f	IT Business Case Planning for Global Enterprise	4 credits
ITT-430 ^Δ	Security Driven Systems Administration	4 credits
ITT-375	Cyber Forensic Investigations	4 credits
STG-390 ^Δ	Professionalism in Science & Technology-Communications, Conduct and Ethics	4 credits
ITT-455 ^{ΩΔ}	IT Project	4 credits
ITT-425	Analysis, Design, and Management of Secure Corporate Networks	4 credits
Information Technology with an Emphasis in Cybersecurity Major		64 credits

Bachelor of Science in Software Engineering

The Bachelor program in Software Engineering spans software engineering principles, processes and practices with application to a series of complex systems and challenges faced by enterprises in a variety of private and public (ex. Government) sectors. A particular emphasis is placed on embedded systems, system verification, design, architecture, software analysis, process and project management, and the Software Development Lifecycle (SDLC). Graduates of the Bachelor of Science in Software Engineering may take roles within an organization, at any stage of the software development life cycle such as Software Engineer, Project Manager, Embedded Software Engineer, Systems Analyst, Chief Technology Officer (CTO, Chief Information Officer (CIO), and many others. Graduates of the Software Engineering program may work in a variety of settings, including embedded applications development, social media companies, healthcare providers, large corporations, software engineering corporations, financial institutions, insurance companies, educational institutions, technology suppliers, consulting firms, research facilities, and more. The program culminates in a capstone course that provides an opportunity for students to develop an evidence-based practice project proposal that addresses a current problem, issue, or concern in software engineering. Students identify a problem amenable to research-based intervention; search literature; propose a solution; develop

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

a theoretical model, a system architecture, an implementation plan for a software solution, then evaluate its outcome(s), and disseminate the findings.

Degree Requirements

Total General Education	34-40 credits
Total Software Engineering	88 credits
Total Electives	0-6 credits
Total Bachelor of Science in Software Engineering	128 credits

Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

CST-320^A	Human-Computer Interaction and Communication & Lab	4 credits
CYB-420	Global Perspectives on Cyberwarfare	4 credits

(Included in General Education totals credits, applied to the Critical Thinking competency.)

MAT-262	Calculus for Science and Engineering I	4 credits
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit

(Included in General Education totals credits, applied to the Effective Communication competency.)

STG-390	Professionalism in Science & Technology – Communications, Conduct, and Ethics	4 credits
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Software Engineering Major

CST-105	Computer Programming I	4 credits
CST-210	Object Oriented Programming & Lab	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
MAT-264	Calculus for Science and Engineering II	4 credits
CST-135	Computer Programming II	4 credits
CST-201	Algorithms and Data Structures	4 credits
MAT-374	Calculus Based Probability and Statistics	4 credits
PHY-122	University Physics II	3 credits
PHY-122L	University Physics II Lab	1 credit
MAT-345	Applied Linear Algebra I	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
SWE-310	Software Engineering I	4 credits
CST-215	Digital Logic and Design Lecture & Lab	4 credits
CST-310	Computer Graphics & Lab	4 credits
CST-315	Operating Systems & Lab	4 credits
SWE-350	Embedded Systems I	4 credits

CST-341	Open Source Computing	4 credits
STG-451^{ΩA}	Capstone Project I	2 credits
SWE-451	Software Development Life Cycle (SDLC) I	2 credits
SYM-400	Introduction to Database Structures	4 credits
SWE-410	Software Engineering II	4 credits
STG-452^{ΩA}	Capstone Project II	2 credits
SWE-452	Software Development Life Cycle (SDLC) II	2 credits
SYM-408	Relational Databases for Business Applications	4 credits
SWE-450	Embedded Systems II	4 credits
Software Engineering Major		88 credits

Undergraduate Certificate of Completion in Cybersecurity Foundations *Immersive*

This certificate provides students with concepts and practical application of cybersecurity tools, technologies, and procedures. Deploying advanced techniques in exploitation, vulnerability assessment, penetration testing, policy management, security program design, and cyber defense activities, with real-world hands-on practical activities that go beyond theory are integrated within this certificate. This certificate concludes with skills in professional communications and conduct associated with a career in technology.

Degree Requirements

ITT-116N^Ω	Platforms and Network Technologies	4 credits
ITT-307N^Ω	Cybersecurity Foundations	4 credits
ITT-340N^Ω	Cybersecurity and Ethical Hacking	4 credits
ITT-375N^Ω	Cyber Forensic Investigations	4 credits

Undergraduate Certificate of Completion in Cybersecurity Foundations	16 credits
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Undergraduate Certificate of Completion in Java Programming *Immersive*

This certificate offers expanding opportunities for students to learn in-demand programming skills. This certificate is applicable to any major and provides the requisite knowledge that aligns with a certificate in Java Programming. Enhancing your knowledge in computer programming, this certificate focuses on object-oriented techniques in Java, software development using the Java programming language and building applications using software engineering methods. You will also learn concepts and techniques for improving new code and refactoring existing code. This certificate concludes with skills in professional communications and conduct associated with a career in technology.

Degree Requirements

CST-105N^Ω	Computer Programming I	4 credits
CST-135N^Ω	Computer Programming II	4 credits
CST-235N^Ω	Computer Programming III	4 credits
CST-341N^Ω	Open Source Computing	4 credits

Undergraduate Certificate of Completion in Java Programming	16 credits
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^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Bridge (Master of Science in Cybersecurity)

Grand Canyon University's Master of Science in Cyber Security program trains students on using current, open source, and advanced techniques in digital forensics, penetration testing, vulnerability assessment, exploitation techniques, and other software and applications to protect organizations' systems, data, and processes. This program focuses on the various areas of cybersecurity, providing students with the tools to understand and protect against the enemy in Cyber Warfare/Cyber Defense activities; including an exploration of policies, cyber law, national and international ramifications, and ethical considerations. Students enrolled in this program will gain the technical skills and hands-on experience with real world data integrating a Christian worldview into cybersecurity. These students, applying the Hackers-with-Halos™ methodology, will build and become part of a vast network of highly-skilled professionals and white-hat penetration testers in the field of Cybersecurity.

CST-111	Introduction to Computer Science and Information Technology	4 credits
ITT-116	Platforms and Network Technologies	4 credits
ITT-121	System Administration and Maintenance	4 credits
ITT-307	Cybersecurity Foundations	4 credits
Bridge (Master of Science in Cybersecurity)		16 credits

Master of Science in Computer Science

The Master of Science in Computer Science is designed for Computer Science or for Engineering and other Science professionals with a strong background in areas related to Computer Science, who want to deepen their knowledge of the interplay between computer science and how theory and practice influence each other. The master program in Computer Science spans topics in abstraction, complexity, evolutionary change, and a set of general principles, such as sharing common resources, security, and concurrency. Graduates will be able to design, implement, and improve theoretical and functional systems based on quantitative and qualitative assessments of their functionality, usability and performance. Graduates of the Master of Science in Computer Science may take on senior and leadership roles within an organization such as Researcher, Algorithm Designer, Enterprise Software Tool Developer, Senior Software Architect, Senior Software Developer, Director of Software Development, and many others. Graduates of the Computer Science program may work in a variety of settings, including game developers, social media companies, healthcare providers, large corporations, financial institutions, insurance companies, educational institutions, technology suppliers, consulting firms, research facilities, and more. The program culminates in a capstone course that provides an opportunity for students to develop an evidence-based practice project proposal that addresses a current problem, issue, or concern in computer science. Students identify a problem amenable to research-based intervention; search literature; propose a solution; and develop a theoretical model and implement the software solution, evaluate its outcome(s), and disseminate the findings. The Master of Science in Computer Science prepares graduates for pursuing a doctoral degree in Computer Science or related disciplines.

Degree Requirements

UNV-507^Ω	Introduction to Graduate Studies in CSET	2 credits
DSC-510	Advanced Probability and Statistics	4 credits
CST-520	Design and Analysis of Algorithms	4 credits
CST-530	Advanced Operating Systems	4 credits
CST-540	Programming Languages	4 credits
CST-550	Parallel Programming	4 credits
CST-560	Research Methods in Computational Sciences	4 credits
CST-570	Machine Learning for Computer Science	4 credits
CST-580	Artificial Intelligence	4 credits
CST-590^Ω	Computer Science Capstone Project	4 credits
Master of Science in Computer Science		38 credits

Master of Science in Data Science

The Master of Science in Data Science program is designed for Computer Science or Engineering professionals who want to better understand and apply predictive analytics theory, principles, and tools to a wide variety of problems in science, engineering, and business. The master program in Data Science spans interdisciplinary topics in predictive analytics, computing, statistics, business intelligence, machine learning, and software tools. Graduates of the Master of Science in Data Science program may take on roles within an organization such as analytics officer, business analytics director, predictive analyst, data scientist, fraud analytics manager, analytics strategy consultant, marketing analytics manager, risk analyst, customer analytics manager, etc. Graduates of the Data Science program may work in a variety of settings, including web-based retailers, social media companies, hospitals, primary care facilities, large manufacturing corporations, financial institutions, insurance companies, educational institutions, technology suppliers, consulting firms, think tanks, research facilities, and more. The program culminates in a capstone course that provides an opportunity for students to develop an evidence-based practice project proposal that addresses a current problem, issue, or concern in data science. Students identify a problem amenable to research-based intervention; search literature; propose a solution; and develop a plan to implement the solution, evaluate its outcome(s), and disseminate the findings.

Degree Requirements

UNV-507^Ω	Introduction to Graduate Studies in CSET	2 credits
DSC-510	Advanced Probability and Statistics	4 credits
DSC-520	Regression Analysis	4 credits
DSC-530	Predictive Modeling	4 credits
DSC-540	Machine Learning for Data Science	4 credits
DSC-550	Neural Networks and Deep Learning	4 credits
CST-560	Research Methods in Computational Sciences	4 credits
DSC-570	Data Mining	4 credits
DSC-580	Designing and Creating Data Products	4 credits
DSC-590^Ω	Data Science Capstone Project	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Master of Science in Cybersecurity

Grand Canyon University's Master of Science in Cyber Security program trains students on using current, open source, and advanced techniques in digital forensics, penetration testing, vulnerability assessment, exploitation techniques, and other software and applications to protect organizations' systems, data, and processes. This program focuses on the various areas of cybersecurity, providing students with the tools to understand and protect against the enemy in Cyber Warfare/Cyber Defense activities; including an exploration of policies, cyber law, national and international ramifications, and ethical considerations. Students enrolled in this program will gain the technical skills and hands-on experience with real world data integrating a Christian worldview into cybersecurity. These students, applying the Hackers-with-Halos™ methodology, will build and become part of a vast network of highly-skilled professionals and white-hat penetration testers in the field of Cybersecurity.

Degree Requirements

<u>UNV-507</u> ^Ω	Introduction to Graduate Studies in CSET	2 credits
<u>CYB-505</u>	Cyber Warfare and Applications	4 credits
<u>CYB-515</u>	Enterprise Security Infrastructure Design	4 credits
<u>CYB-525</u>	Technology Implementation of Security Solutions	4 credits
<u>CYB-535</u>	Policy Management for Security Solutions	4 credits
<u>CYB-610</u>	Penetration Testing and Risk Management	4 credits
<u>CYB-630</u>	Enterprise Cyber Law and Compliance Strategies	4 credits
<u>CYB-650</u>	Innovation in Security Frameworks	4 credits
<u>CYB-690</u>	Cybersecurity Program Development	4 credits
Master of Science in Cybersecurity		34 credits

Engineering Programs

Bachelor of Science in Biomedical Engineering

Grand Canyon University's Bachelor of Science in Biomedical Engineering was developed with industry and clinical guidance to address the foundational knowledge and skills required to begin a career in the field of biomedical engineering and related biomedical professions. Biomedical engineering contributes to improved patient care through work in areas such as the design, development and manufacture of medical devices, tissue engineering and implantable design, government regulatory compliance, and biomedical research. This program integrates the engineering sciences with the biomedical sciences. This program teaches topics and assesses competency in engineering design principles from mechanical and electrical engineering; linked with knowledge of human anatomy and physiology, materials properties/biocompatibility and clinical practice. This program also integrates math, chemistry, physics, and computer programming with an emphasis on critical thinking, problem solving, and real-world clinical application. Student gain practical project management experience and familiarity with

common business practices. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability, and self-confidence. Students learn professional and ethical practices associated with engineering through the lens of our Christian worldview.

Degree Requirements

Total General Education	34-40 credits
Total Biomedical Engineering Major	88 credits
Total Electives	0-6 credits
Total Bachelor of Science in Biomedical Engineering	128 credits

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

<u>STG-390</u> ^Δ	Professionalism in Science and Technology – Communications, Conduct, and Ethics	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

<u>MAT-261</u>	Pre-Calculus	4 credits
<u>BIO-181</u>	General Biology I	3 credits
<u>BIO-181L</u>	General Biology I Lab	1 credit
<u>CHM-113</u>	General Chemistry I	3 credits
<u>CHM-113L</u>	General Chemistry I Lab	1 credit

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

<u>STG-110</u> ^Ω	Team Innovation Experience	3 credits
<u>STG-110L</u> ^Ω	Team Innovation Experience Lab	1 credit

Biomedical Engineering Major

<u>CHM-115</u>	General Chemistry II – Lecture	3 credits
<u>CHM-115L</u>	General Chemistry II – Lab	1 credit
<u>MAT-262</u>	Calculus for Science and Engineering I	4 credits
<u>CST-211</u>	Programming for Engineering & Lab	4 credits
<u>MAT-264</u>	Calculus for Science and Engineering II	4 credits
<u>PHY-121</u>	University Physics I	3 credits
<u>PHY-121L</u>	University Physics I Lab	1 credit
<u>ESG-250</u>	Computer Aided Engineering & Lab	4 credits
<u>MAT-364</u>	Differential Equations for Science and Engineering	4 credits
<u>PHY-122</u>	University Physics II	3 credits
<u>PHY-122L</u>	University Physics II Lab	1 credit
<u>ESG-202</u>	Electrical & Electronic Circuits	3 credits
<u>ESG-202L</u>	Electrical & Electronic Circuits Lab	1 credit
<u>STG-330</u>	Thermodynamics & Lab	4 credits
<u>MAT-374</u>	Probability and Statistics - Calculus Based	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BME-360	Introduction to Biomechanics & Lab	4 credits
BIO-360	Medical Physiology	3 credits
BIO-360L	Medical Physiology Lab	1 credit
STG-345	Transport Phenomena & Lab	4 credits
BME-356	Biomaterials	3 credits
BME-356L	Biomaterials Lab	1 credit
STG-430	Engineering Project Management	4 credits
BME-471	Biomedical Design Elements I	2 credits
ESG-451 ^{ΩΔ}	Capstone Project I	2 credits
ESG-455	Dynamic Systems & Lab	4 credits
BME-460	Biomedical Instrumentation and Devices & Lab	4 credits
ESG-452 ^{ΩΔ}	Capstone Project II	2 credits
BME-472	Biomedical Design Elements II	2 credits
BME-465	Advanced Biomedical Instrumentation and Devices & Lab	4 credits

Students should enroll in a total of 4 credits from the following courses

STG-403	Internship I	4 credits
STG-404	Internship II	4 credits
STG-405	Internship III	2 credits
STG-406	Internship IV	2 credits
STG-407	Internship V	0 credits
BIO-333	Molecular and Cellular Biology	4 credits
STG-460	Survey of Manufacturing Techniques	4 credits
ESG-330	Introduction to Robotics & Lab	4 credits
ESG-435	Control Systems and Robotics & Lab	4 credits

Biomedical Engineering Major	88 credits
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Bachelor of Science in Engineering

Grand Canyon University's Bachelor of Science in Engineering was developed to address the foundational knowledge and skills required to begin a career in the various fields of engineering. This degree offers students an interdisciplinary engineering curriculum along with foundational skills in science, technology, engineering, and mathematics (STEM), in order to produce well-rounded, and versatile professionals. Students will complete a rigorous engineering curriculum which will prepare them for a variety of careers upon graduation. The Christian worldview is integrated into the classroom with importance placed on ethics and professionalism. Engineering graduates enter the workforce prepared to work in diverse teams and communicate results effectively or may opt to pursue an advanced degree.

Degree Requirements

Total General Education	34-40 credits
Total Engineering Major	88 credits
Total Electives	0-6 credits
Total Bachelor of Science in Engineering	128 credits

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390 ^Δ	Professionalism in Science and Technology – Communications, Conduct, and Ethics	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

STG-110 ^Ω	Team Innovation Experience	3 credits
STG-110L ^Ω	Team Innovation Experience Lab	1 credit

Engineering Major

CST-211	Programming for Engineering & Lab	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits
MAT-264	Calculus for Science and Engineering II	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
ESG-250	Computer Aided Engineering & Lab	4 credits
PHY-122	University Physics II	3 credits
PHY-122L	University Physics II Lab	1 credit
MAT-364	Differential Equations for Science and Engineering	4 credits
ESG-360	Statics and Dynamics & Lab	4 credits
MAT-374	Probability and Statistics - Calculus Based	4 credits
ESG-202	Electrical & Electronic Circuits	3 credits
ESG-202L	Electrical & Electronic Circuits Lab	1 credit
STG-330	Thermodynamics & Lab	4 credits
MEE-460	Mechanical Instrumentation and Devices & Lab	4 credits
MGT-410	Servant Leadership	4 credits
STG-430	Engineering Project Management	4 credits
ESG-451 ^{ΔΩ}	Capstone Project I	2 credits
MEE-471	Principles of Mechanical Design I	2 credits
ENT-435 [‡]	Intrapreneurship and Innovation	4 credits
MGT-420 [‡]	Organizational Behavior and Management	4 credits
ESG-452 ^{ΔΩ}	Capstone Project II	2 credits
MEE-472	Principles of Mechanical Design II	2 credits
MGT-455	Production/Operations Management	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Students should enroll in a total of 4 credits from the following courses

STG-242	Science of Solid Materials	3 credits
STG-242L	Science of Solid Materials Lab	1 credit
MEE-340	Structure and Property of Materials	3 credits
MEE-340L	Structure and Property of Materials Lab	1 credit
BME-356	Biomaterials	3 credits
BME-356L	Biomaterials Lab	1 credit

Students should enroll in a total of 4 credits from the following courses

STG-350	Electromagnetic Fields & Optics	3 credits
STG-350L	Electromagnetic Fields & Optics Lab	1 credit
STG-345	Transport Phenomena & Lab	4 credits

Students should enroll in a total of 4 credits from the following courses

ESG-455	Dynamic Systems & Lab	4 credits
ESG-441	Power & Energy Systems	3 credits
ESG-441L	Power & Energy Systems Lab	1 credit
CST-307	Introduction to Computer Architecture & Lab	4 credits
ESG-330	Introduction to Robotics	4 credits
ESG-462	Current Topics in Biomedical Engineering & Lab	4 credits

Engineering Major	88 credits
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Bachelor of Science in Engineering with an Emphasis in Robotics

Grand Canyon University's Bachelor of Science in Engineering with an Emphasis in Robotics was developed to address the foundational knowledge and skills required to begin a career in the various fields of engineering. This degree offers students an interdisciplinary engineering curriculum along with foundational skills in science, technology, engineering, and mathematics (STEM) in order to produce well-rounded, and versatile professionals. Students will complete a rigorous engineering curriculum with a robotics emphasis which will prepare them for a variety of careers upon graduation. The Christian worldview is integrated into the classroom with importance placed on ethics and professionalism. Engineering graduates enter the workforce prepared to work in diverse teams and communicate results effectively or may opt to pursue an advanced degree.

Degree Requirements

Total General Education	34-40 credits
Total Engineering with an Emphasis in Robotics Major	88 credits
Total Electives	0-6 credits
Total Bachelor of Science in Engineering with an Emphasis in Robotics	128 credits

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390^Δ	Professionalism in Science and Technology – Communications, Conduct, and Ethics	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

STG-110^Ω	Team Innovation Experience	3 credits
STG-110L^Ω	Team Innovation Experience Lab	1 credit

Engineering with an Emphasis in Robotics Major

CST-211	Programming for Engineering & Lab	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits
MAT-264	Calculus for Science and Engineering II	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
ESG-250	Computer Aided Engineering & Lab	4 credits
PHY-122	University Physics II	3 credits
PHY-122L	University Physics II Lab	1 credit
MAT-364	Differential Equations for Science and Engineering	4 credits
ESG-360	Statics and Dynamics & Lab	4 credits
MAT-374	Probability and Statistics - Calculus Based	4 credits
ESG-202	Electrical & Electronic Circuits	3 credits
ESG-202L	Electrical & Electronic Circuits Lab	1 credit
STG-330	Thermodynamics & Lab	4 credits
MEE-340	Structure and Property of Materials	3 credits
MEE-340L	Structure and Property of Materials Lab	1 credit
MEE-460	Mechanical Instrumentation and Devices & Lab	4 credits
MAT-345	Applied Linear Algebra I	4 credits
ESG-330	Introduction to Robotics	4 credits
ESG-451^Δ ^Ω	Capstone Project I	2 credits
MEE-471	Principles of Mechanical Design I	2 credits
ESG-455	Dynamic Systems & Lab	4 credits
ESG-430	Advanced Robotics & Lab	4 credits
ESG-452^Δ ^Ω	Capstone Project II	2 credits
MEE-472	Principles of Mechanical Design II	2 credits
ESG-435	Control Systems and Robotics & Lab	4 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ESG-462	Current Topics in Biomedical Engineering & Lab	4 credits
<i>Students should enroll in a total of 4 credits from the following courses</i>		
STG-350	Electromagnetic Fields & Optics	3 credits
STG-350L	Electromagnetic Fields & Optics Lab	1 credit
STG-345	Transport Phenomena & Lab	4 credits
Engineering with an Emphasis in Robotics Major		88 credits

Bachelor of Science in Electrical Engineering

Grand Canyon University's Bachelor of Science in Electrical Engineering was developed with industry guidance to address the broad, foundational knowledge and skills required to be contributors as electrical engineers, electronics engineers, electrical design engineers, project engineers, controls engineers, test engineers, hardware design engineers, communications engineers, circuits engineers or sales engineers. This program teaches topics and assesses competency in circuits, analog and digital electronics, electromagnetic fields, optics, signal processing, communications, computer design, power, and controls. This program integrates math, chemistry, physics and biology and emphasizes critical thinking, real-world application and practical project management project experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. Students learn professional and ethical practices associated with engineering through the lens of our Christian worldview.

Degree Requirements

Total General Education	34-40 credits
Total Electrical Engineering Major	88 credits
Total Electives	0-6 credits
Total Bachelor of Science in Electrical Engineering	128 credits

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390 ^Δ	Professionalism in Science and Technology – Communications, Conduct, and Ethics	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

STG-110 ^Ω	Team Innovation Experience	3 credits
STG-110L ^Ω	Team Innovation Experience Lab	1 credit

Electrical Engineering Major

MAT-262	Calculus for Science and Engineering I	4 credits
CST-111	Introduction to Computer Science and Information Technology	4 credits
MAT-264	Calculus for Science and Engineering II	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
CST-210	Object-Oriented Programming & Lab	4 credits
PHY-122	University Physics II	3 credits
PHY-122L	University Physics II Lab	1 credits
EEE-202	Circuits	3 credits
EEE-202L	Circuits Lab	1 credit
MAT-345	Applied Linear Algebra I	4 credits
CST-215	Digital Logic and Design Lecture & Lab	4 credits
MAT-364	Differential Equations for Science and Engineering	4 credits
STG-242	Science of Solid Materials	3 credits
STG-242L	Science of Solid Materials Lab	1 credit
EEE-213	Signals and Systems	3 credits
EEE-213L	Signals and Systems Lab	1 credit
MAT-374	Probability and Statistics – Calculus Based	4 credits
EEE-302	Advanced Circuits & Lab	4 credits
STG-350	Electromagnetic Fields & Optics	3 credits
STG-350L	Electromagnetic Fields & Optics Lab	1 credit
STG-430	Engineering Project Management	4 credits
ESG-451 ^{Ω/Δ}	Capstone Project I	2 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
EEE-320	Electronics and Devices & Lab	4 credits
ESG-452 ^{Ω/Δ}	Capstone Project II	2 credits
EEE-431	Communications Signal Processing & Lab	4 credits
ESG-441	Power & Energy Systems	3 credits
ESG-441L	Power & Energy Systems Lab	1 credit
<i>One of the following four courses:</i>		
STG-403	Internship I	4 credits
ESG-421	Advances in Computer Design & Lab	4 credits
ESG-435	Control Systems and Robotics & Lab	4 credits
ESG-462	Current Topics in Biomedical Engineering & Lab	4 credits
Electrical Engineering Major		88 credits

Bachelor of Science in Electrical Engineering Technology

Grand Canyon University's Bachelor of Science in Electrical Engineering Technology was developed with industry guidance

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

to address the broad, foundational knowledge and skills required to be contributors as electrical engineering technicians, electronics engineering technicians, service engineers, industrial automation technicians, robotics technicians, telecommunications technicians, electric machinery technicians, and technician supervisors. This program teaches topics and assesses competency in circuits, analog and digital electronics, signal processing, communications, computer design, electronic materials, controls and robotics, power and machinery, and technical documentation. This program integrates math, chemistry, physics, and biology and emphasizes critical thinking, real-world applications, and practical project management project experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability, and self-confidence. Students learn professional and ethical practices associated with engineering through the lens of the Christian worldview.

Degree Requirements

Total General Education	34-40 credits
Total Electrical Engineering Technology Major	88 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Electrical Engineering Technology	128 credits

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390 ^Δ	Professionalism in Science and Technology – Communications, Conduct, and Ethics	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

STG-110 ^Ω	Team Innovation Experience	3 credits
STG-110L ^Ω	Team Innovation Experience Lab	1 credit

Electrical Engineering Technology Major

PHY-111	General Physics I	3 credits
PHY-111L	General Physics I Lab	1 credit
CST-111	Introduction to Computer Science and Information Technology	4 credits
MAT-252	Calculus and Analytic Geometry I	4 credits
MAT-274	Probability and Statistics	4 credits
PHY-112	General Physics II	3 credits
PHY-112L	General Physics II Lab	1 credit
EET-202	Applied Circuits I	3 credits
EET-202L	Applied Circuits I Lab	1 credit
CST-215	Digital Logic and Design Lecture & Lab	4 credits
EET-302	Applied Circuits II & Lab	4 credits

ETG-222	Experimental Methods	4 credits
CST-210	Object-Oriented Programming Lecture & Lab	4 credits
ITT-116	Platforms and Network Technologies	4 credits
EET-325	Embedded Systems	4 credits
EET-320	Digital Electronics and Integrated Circuits & Lab	4 credits
ETG-315	Materials and Microscopy & Lab	4 credits
ETG-498 ^Δ	Senior Project I	2 credits
ETG-415	Power and Energy Technologies	3 credits
ETG-415L	Power and Energy Technologies Lab	1 credit
ETG-420	Quality Control	2 credits
EET-330	Communication Networks & Lab	4 credits
ITT-270	Routing and Switching	4 credits
ETG-499 ^Δ	Senior Project II	2 credits
EET-425	Industrial Automation	2 credits
ETG-410	Controls and Instrumentation & Lab	4 credits
EET-430	Electrical Troubleshooting and Maintenance & Lab	4 credits

Student must enroll in a total of 4 credits from the following courses:

CST-307	Introduction to Computer Architecture Lecture & Lab	4 credits
CST-323	Cloud Computing	4 credits
STG-403	Internship I	4 credits

Electrical Engineering Technology Major	88 credits
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Bachelor of Science in Mechanical Engineering

Grand Canyon University's Bachelor of Science in Mechanical Engineering was developed with industry guidance to address the broad, foundational knowledge and skills required to be contributors in fields such as mechanical engineering, industrial engineering, systems engineering, manufacturing engineering, design engineering, project engineering, and engineering sales. This program teaches topics and assesses competency in mechanical design principles; solid, structural, and fluid mechanics; thermodynamics, thermofluids, materials science, heat transfer, circuits, robotics, power, and controls. This program integrates math, chemistry, physics, biology, and computer programming with an emphasis on critical thinking, problem solving, real-world application and practical project management experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability and self-confidence. Students learn professional and ethical practices associated with engineering through the lens of our Christian worldview.

Degree Requirements

Total General Education	34-40 credits
Total Mechanical Engineering Major	88 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Mechanical Engineering	128 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390 ^Δ	Professionalism in Science and Technology – Communications, Conduct, and Ethics	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

MAT-261	Pre-Calculus	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

STG-110 ^Ω	Team Innovation Experience	3 credits
STG-110L ^Ω	Team Innovation Experience Lab	1 credit

Mechanical Engineering Major

CHM-115	General Chemistry II – Lecture	3 credits
CHM-115L	General Chemistry II – Lab	1 credit
MAT-262	Calculus for Science and Engineering I	4 credits
CST-211	Programming for Engineering & Lab	4 credits
MAT-264	Calculus for Science and Engineering II	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
ESG-250	Computer Aided Engineering & Lab	4 credits
PHY-122	University Physics II	3 credits
PHY-122L	University Physics II Lab	1 credit
MAT-364	Differential Equations for Science and Engineering	4 credits
ESG-360	Statics and Dynamics & Lab	4 credits
MAT-374	Probability and Statistics - Calculus Based	4 credits
ESG-202	Electrical & Electronic Circuits	3 credits
ESG-202L	Electrical & Electronic Circuits Lab	1 credit
STG-330	Thermodynamics	4 credits
MEE-352	Solid Mechanics & Lab	4 credits
MEE-340	Structure and Property of Materials	3 credits
MEE-340L	Structure and Property of Materials Lab	1 credit
STG-345	Transport Phenomena & Lab	4 credits
MEE-460	Mechanical Instrumentation and Devices & Lab	4 credits
STG-430	Engineering Project Management	4 credits
ESG-455	Dynamic Systems & Lab	4 credits
MEE-471	Principles of Mechanical Design I	2 credits
ESG-451 ^{Ω/Δ}	Capstone Project I	2 credits

ESG-452 ^{Ω/Δ}	Capstone Project II	2 credits
MEE-472	Principles of Mechanical Design II	2 credits
STG-460	Survey of Manufacturing Techniques	4 credits

Student must enroll in a total of 4 credits from the following courses:

STG-403	Internship I	4 credits
STG-404	Internship II	4 credits
STG-405	Internship III	2 credits
STG-406	Internship IV	2 credits
STG-407	Internship V	0 credits
ESG-441	Power & Energy Systems	3 credits
ESG-441L	Power & Energy Systems Lab	1 credit
ESG-435	Control Systems and Robotics & Lab	4 credits
ESG-462	Current Topics in Biomedical Engineering & Lab	4 credits

Mechanical Engineering Major	88 credits
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Bachelor of Science in Mechanical Engineering Technology

Grand Canyon University's Bachelor of Science in Mechanical Engineering Technology was developed with industry guidance to address the broad, foundational knowledge and skills required to be contributors as mechanical engineering technicians, mechanical design technicians, service engineers, industrial automation technicians, robotics technicians, manufacturing process technicians, electric machinery technicians, and technician supervisors. This program teaches topics and assesses competency in all aspects of mechanical engineering technology including strength of materials, statics, dynamics, manufacturing processes, heat and power generation, fluid/thermal systems, CNC machining, applied circuit theory and control systems. This program integrates math, chemistry, and physics and emphasizes critical thinking, real-world application, and practical project management project experience. In addition, students develop valuable workplace skills, including effective communication, teamwork, initiative, strong work ethic, analytical skills, adaptability, and self-confidence. Students learn professional and ethical practices associated with engineering through the lens of the Christian worldview.

Degree Requirements

Total General Education	34-40 credits
Total Mechanical Engineering Technology Major	88 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Mechanical Engineering Technology	128 credits

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390 ^Δ	Professionalism in Science and Technology – Communications, Conduct, and Ethics	4 credits
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(Included in General Education total credits, applied to the Critical Thinking competency.)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

MAT-261	Pre-Calculus	4 credits
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit

(Included in General Education total credits, applied to the Global Awareness, Perspectives, and Ethics competency.)

STG-110 ^Ω	Team Innovation Experience	3 credits
STG-110L ^Ω	Team Innovation Experience Lab	1 credit

Mechanical Engineering Technology Major

PHY-111	General Physics I	3 credits
PHY-111L	General Physics I Lab	1 credit
CST-111	Introduction to Computer Science and Information Technology	4 credits
MAT-252	Calculus and Analytic Geometry I	4 credits
MAT-274	Probability and Statistics	4 credits
PHY-112	General Physics II	3 credits
PHY-112L	General Physics II Lab	1 credit
MET-212	Static Analysis of Mechanical Systems & Lab	4 credits
ESG-250	Computer Aided Engineering & Lab	4 credits
MET-213	Dynamic Analysis of Mechanical Systems & Lab	4 credits
ETG-222	Experimental Methods	4 credits
EET-202	Applied Circuits	3 credits
EET-202L	Applied Circuits Lab	1 credit
MET-275	Computerized Design and Manufacturing Tools in MET & Lab	4 credits
MET-203	Strength of Materials & Lab	4 credits
MET-302	Principles of Design I & Lab	4 credits
MET-308	Fluid/Thermal Transport & Lab	4 credits
ETG-410 [‡]	Controls and Instrumentation & Lab	4 credits
ETG-498 ^{Ω/Δ}	Senior Project I	2 credits
ETG-420	Quality Control	2 credits
MET-315	Material and Processes & Lab	4 credits
MET-402	Principles of Design II & Lab	4 credits
ETG-499 ^{Δ/Ω}	Senior Project II	2 credits
STG-460	Survey of Manufacturing Techniques	4 credits
STG-460L	Survey of Manufacturing Techniques Lab	2 credits
MET-418	Heat and Power Generation & Lab	4 credits

Student must enroll in a total of 4 credits from the following courses

MET-312	Metrology and CNC Machining & Lab	4 credits
CST-211	Programming for Engineering & Lab	4 credits
STG-403	Internship I	4 credits
Mechanical Engineering Technology Major		88 credits

Minors

Minor in Athletic Coaching

The Minor in Athletic Coaching is intended to assist the future teacher, fitness professional, or other professional who wishes to coach interscholastic, intercollegiate, or other sports teams in all aspects of preparation for competition.

Minor Requirements

BIO-155	Introduction to Anatomy and Physiology	3 credits
BIO-155L	Introduction to Anatomy and Physiology Lab	1 credit
EXS-214	Care, Treatment, and Prevention of Athletic Injuries	3 credits
EXS-214L	Care, Treatment, and Prevention of Athletic Injuries Lab	1 credit
PED-337	Theory, Philosophy, and Principles of Coaching	4 credits
Choose any 3 of the following 6 courses:		
PED-325	Coaching Baseball: Theory and Practice	4 credits
PED-326	Coaching Basketball: Theory and Practice	4 credits
PED-327	Coaching Volleyball: Theory and Practice	4 credits
PED-328	Coaching Softball: Theory and Practice	4 credits
PED-329	Coaching Soccer: Theory and Practice	4 credits
Minor in Athletic Coaching		24 credits

Minor in Biological Sciences

Minor Pre-requisites

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I - Lab	1 credit
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II – Lab	1 credit

Minor Requirements

BIO-320	Fundamentals of Ecology	3 credits
BIO-320L	Fundamentals of Ecology-Lab	1 credit
BIO-342	Analysis of Biological Diversification	4 credits
BIO-415	Vertebrate Zoology	3 credits
BIO-415L	Vertebrate Zoology Lab	1 credit
BIO-328	Animal Behavior	3 credits
BIO-328L	Animal Behavior Lab	1 credit
Minor in Biological Sciences		24 credits

Minor in Chemistry for Chemical and Structural Analysis

The minor in Chemistry-Chemical and Structural Analysis will give students majoring in non-chemistry disciplines a solid foundation in chemical science. This minor is particularly

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

suitable for students that are studying laboratory sciences such as Forensic Science or Environmental Science.

Minor Pre-requisites

MAT-154	Applications of College Algebra	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I - Lab	1 credit
CHM-113	General Chemistry I – Lecture	3 credits
CHM-113L	General Chemistry I – Lab	1 credit
CHM-115	General Chemistry II – Lecture	3 credits
CHM-115L	General Chemistry II – Lab	1 credit
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit

Minor Requirements

CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
CHM-315	Analytical Chemistry	3 credits
CHM-315L	Analytical Chemistry Lab	1 credit
CHM-333	Structural Determination in Organic Chemistry	4 credits
CHM-360	Principles of Biochemistry	3 credits
CHM-360L	Principles of Biochemistry – Lab	1 credit
CHM-460	Advanced Biochemistry	3 credits
CHM-460L	Advanced Biochemistry Lab	1 credit

Minor in Chemistry for Chemical and Structural Analysis	40 credits
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Minor in Chemistry for Life Sciences

The minor in chemistry for life sciences will give students majoring in non-chemistry disciplines a solid foundation in chemical science. This minor is particularly suitable for students in life sciences but will interest anyone seeking to learn more about the relationship of chemistry with life processes.

Minor Pre-requisites

MAT-154	Applications of College Algebra	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I - Lab	1 credit
CHM-113	General Chemistry I – Lecture	3 credits
CHM-113L	General Chemistry I – Lab	1 credit
CHM-115	General Chemistry II – Lecture	3 credits
CHM-115L	General Chemistry II – Lab	1 credit
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit

Minor Requirements

BIO-205	Microbiology	3 credits
BIO-205L	Microbiology – Lab	1 credit
CHM-232	Organic Chemistry II	3 credits

CHM-232L	Organic Chemistry II Lab	1 credit
CHM-315	Analytical Chemistry	3 credits
CHM-315L	Analytical Chemistry Lab	1 credit
CHM-360	Principles of Biochemistry	3 credits
CHM-360L	Principles of Biochemistry – Lab	1 credit
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
CHM-451	Pharmacology I	4 credits
CHM-452	Pharmacology II	4 credits
CHM-460	Advanced Biochemistry	3 credits
CHM-460L	Advanced Biochemistry Lab	1 credit

Minor in Chemistry for Life Sciences	52 credits
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Minor in Chemistry for Physical Science and Engineering

The minor in chemistry for physical science and engineering will give students in non-chemistry disciplines a solid foundation in chemical science. This minor is particularly suitable for students in physical science and engineering disciplines but will suit anyone seeking a strong physical chemistry experience.

Minor Pre-requisites

MAT-154	Applications of College Algebra	4 credits
MAT-261	Pre-Calculus	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
CHM-113	General Chemistry I – Lecture	3 credits
CHM-113L	General Chemistry I – Lab	1 credit

Minor Requirements

MAT-262	Calculus for Science and Engineering I	4 credits
CHM-115	General Chemistry II – Lecture	3 credits
CHM-115L	General Chemistry II – Lab	1 credit
CHM-235	Survey of Organic Chemistry	3 credits
CHM-235L	Survey of Organic Chemistry Lab	1 credit
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
CHM-441	Physical Chemistry I	3 credits
CHM-441L	Physical Chemistry I Lab	1 credit
CHM-444	Physical Chemistry II	3 credits
CHM-444L	Physical Chemistry II Lab	1 credit

Minor in Chemistry for Physical Science and Engineering	40 credits
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Minor in Cybersecurity

The minor in Cybersecurity provides students with foundational information technology skills in programming, system administration, and computer networks as well as concepts and

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

practical applications of cybersecurity tools, technologies and procedures. Deploying advanced techniques in exploitation, vulnerability assessment, penetration testing, policy management, and security program design, with real-world hands-on practical activities that go beyond theory are integrated within this minor.

Minor Requirements

MAT-154	Applications of College Algebra	4 credits
CST-111	Introduction to Computer Science and Information Technology	4 credits
ITT-116	Platforms and Network Technologies	4 credits
ITT-121	System Administration and Maintenance	4 credits
ITT-307	Cybersecurity Foundations	4 credits
ITT-340	Cybersecurity and Ethical Hacking	4 credits
Minor in Cybersecurity		24 credits

Minor in Database-Driven Web-Based Applications Development

This minor expands the opportunities for students who would like to acquire skills in database programming and web applications development. It focuses on PHP and MySQL in the context of websites that require intense interaction with a database, like eCommerce, social media, and information sources. The minor provides the requisite knowledge that aligns with a certificate in PHP/MySQL Programming from Oracle.

Minor Requirements

CST-126	Database Application Programming I	4 credits
CST-236	Database Application Programming II	4 credits
CST-256	Database Application Programming III	4 credits
CST-323	Cloud Computing	4 credits
Minor in Database-Driven Web-Based Applications Development		16 credits

Minor in E-Business Applications Development

This minor expands the opportunities for students who would like to learn programming skills. It focuses on the Java language, the premier choice for developing eBusiness applications, for client devices, servers, and enterprise systems. The minor provides the requisite knowledge that aligns with a certificate in Java Programming from Oracle.

Minor Requirements

CST-105	Computer Programming I	4 credits
CST-135	Computer Programming II	4 credits
CST-235	Computer Programming III	4 credits
CST-361	Design Patterns in Java	4 credits
Minor in E-Business Applications Development		16 credits

Minor in Enterprise Applications Development

This minor expands the opportunities for students who would like to learn programming skills. It focuses on the C# language and the .NET framework, widely popular tools for building and deploying enterprise applications. This minor provides the

requisite knowledge that aligns with a certificate in C#.NET Programming from Microsoft.

Minor Requirements

CST-117	Enterprise Applications Programming I	4 credits
CST-227	Enterprise Applications Programming II	4 credits
CST-247	Enterprise Applications Programming III	4 credits
CST-341	Open Source Computing	4 credits
Minor in Enterprise Applications Development		16 credits

Minor in Forensic Science

Minor Requirements

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I - Lab	1 credit
CHM-113	General Chemistry I – Lecture	3 credits
CHM-113L	General Chemistry I – Lab	1 credit
SCI-220	Forensic Photography & Reconstruction	4 credits
SCI-255	Crime Scene Processing	3 credits
SCI-255L	Crime Scene Processing Lab	1 credit
SCI-330	Physical Evidence Analysis	3 credits
SCI-330L	Physical Evidence Analysis Lab	1 credit
SCI-498 ^Ω	Senior Capstone in Forensic Science	4 credits
Minor in Forensic Science		24 credits

Minor in Networking Technology

This minor in networking technology offers opportunities for students to learn in-demand technical skills. This minor provides the knowledge in selection, design, deployment, integration, and administration of networks and communication infrastructures in an organization using in-house and cloud-based solutions. Learning how to implement routing and switching while explaining the physical and transport layers relevant to the IT discipline are offered in this minor. This minor also provides opportunities to implement tools and strategies to meet business objectives and ensure network security as well as explore issues around network management.

Minor Requirements

MAT-154	Applications of College Algebra	4 credits
CST-111	Introduction to Computer Science and Information Technology	4 credits
ITT-116	Platforms and Network Technologies	4 credits
ITT-270	Routing and Switching	4 credits
ITT-370	Wireless Networks	4 credits
ITT-425	Analysis, Design, and Management of Secure Corporate Networks	4 credits
Minor in Networking Technology		24 credits

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Minor in Nutrition

A minor in Nutrition enables students to gain a basic understanding of human nutritional needs & how nutrition contributes to healthy lifestyles & disease prevention. It is ideal for any student seeking a greater understanding of the relationship among food, nutrition, & health & fits easily with any major program of study.

Minor Requirements

NSC-150	Nutrition & Wellness	4 credits
BIO-319	Applied Nutrition	4 credits
NSC-305	Nutrition Across the Lifespan	4 credits
NSC-419	Advanced Nutrition	4 credits
Minor in Nutrition		16 credits

Minor in Pre-Medicine

The Minor in Pre-Medicine includes the standard science coursework required for admission into most graduate medical programs. It also provides all the foundational concepts that would be covered in any entrance exam (MCAT, PCAT, DAT, OAT, etc.).

Graduate medical programs will accept applications from students with any baccalaureate degree as long as they meet all the other prescribed admission requirements. While the coursework defined in this minor covers the standard science courses required by almost all graduate programs, schools may have additional requirements for admission. It is strongly recommended that students considering this minor do some investigation into the admission requirements of the specific graduate programs that they are considering.

Minor Requirements

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
CHM-360	Principles of Biochemistry	3 credits
CHM-360L	Principles of Biochemistry Lab	1 credit
PHY-111	General Physics I	3 credits
PHY-111L	General Physics I Lab	1 credit
PHY-112	General Physics II	3 credits
PHY-112L	General Physics II Lab	1 credit
Minor in Pre-Medicine		36 credits

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | ^Ω Non-Transferable

University Administration and Faculty

Academic Administration

Brian Mueller

President

B.A.Ed., M.A.Ed., Concordia University

Dr. Hank Radda

Provost; Dean, College of Doctoral Studies

B.A., M.S., College of New Rochelle; Ph.D., The Union Institute

Dr. Jennifer Lech

Executive Vice President and University Registrar

B.A., Washington State University; M.B.A., University of Phoenix;

Ph.D., Walden University

Dr. Joe Veres

Vice President, Student Success

B.S. Ashland University; M.A., University of Phoenix; Ed.D.

Grand Canyon University

Shanna Milonas

Assistant Vice President of Academic Compliance; Title IX and Section 504 Coordinator

B.A., Argosy University; MBA, Grand Canyon University

College of Doctoral Studies

Dr. Michael Berger

Dean, College of Doctoral Studies

B.A., M.A., University of Dayton; Ed.D., Grand Canyon University

College of Education

Dr. Kimberly LaPrade

Dean, College of Education; Professor

B.A., M.Ed., Grand Canyon University; Ph.D., Capella University

Dr. Debbie Rickey

Associate Dean, College of Education

B.A., George Fox University; M.S., Portland State University;

Ph.D., Capella University

College of Fine Arts and Production

Claude N. Pensis

Dean, College of Fine Arts and Production; Professor

B.S., University of Wisconsin Oshkosh; M.F.A., University of Wisconsin Madison

William H. Symington V

Assistant Dean of Theatre and Dance

B.A., Grand View College; M.F.A., Arizona State University

Dr. Juan de Dios Hernandez

Assistant Dean of Music

B.A., The Masters College; M.M., A.D., Yale University; D.M.A. University of Arizona

College of Humanities and Social Sciences

Dr. Sherman Elliott

Dean, College of Humanities and Social Sciences; Assistant Professor

B.A., University of San Francisco; M.Ed., Arizona State University; M.A., University of San Francisco; Ed.D., Arizona State University

Dr. Noé Vargas

Assistant Dean, College of Humanities and Social Sciences

B.A., Arizona State University; M.A., Ottawa University

DBH, Arizona State University

College of Nursing and Health Care Professions

Dr. Lisa Smith

Dean, College of Nursing and Health Care Professions; Professor BSN, Salisbury University; MSN-Healthcare Education, University of Phoenix; Ph.D., Barry University

Maria Quimba

Associate Dean of Professional Studies & Baccalaureate Programs

B.S.N., University of Arizona; M.A., Midwestern University;

M.S.N., M.B.A., Grand Canyon University

Trina Staton

Associate Dean, Prelicensure BSN Program

B.S.N., Morningside College; MSN, University of Phoenix

Dr. Tamara Wisely

Assistant Dean, Graduate Studies

B.S.N. Northern Arizona University; MSN Arizona State University; Ph.D. Grand Canyon University

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

College of Science, Engineering, and Technology

Dr. K. Mark Wooden

Dean, College of Science, Engineering, and Technology; Professor
B.S., Ph.D., Arizona State University

Dr. Jon Valla

Assistant Dean, College of Science, Engineering, and Technology
B.S., Minnesota State; Ph.D., University of Texas at Austin

Dr. Richard Mulski

Assistant Dean, College of Science, Engineering, and Technology
B.S., State University of New York; MBA, Goldey-Beacom
College; Ed.D., University of Delaware

Dr. Janet Belin-Fornari

Associate Dean, College of Science, Engineering, and Technology
B.S., University of Nebraska-Lincoln; M.S., University of
Michigan; Ph.D., University of Arizona

Dr. Heather Monthie

Assistant Dean, College of Science, Engineering, and Technology
B.A., Lakeland College; M.A., Cardinal Stritch University; Ph.D.,
Capella University

College of Theology

Dr. Jason Hiles

Dean, College of Theology; Professor
B.F.A., Milwaukee Institute of Arts and Design; M.Div.,
Southwestern Baptist Theological Seminary; Ph.D., Southeastern
Baptist Theological Seminary

Dr. Peter Anderson

Assistant Dean
B.A., Appalachian Bible College; Th.M., Southeastern Baptist
Theological Seminary; Ph.D. Southeastern Baptist Theological
Seminary

Anna Faith Smith

Assistant Dean, College of Theology; Associate Professor
B.A., Grand Canyon University; M.Div., Southwestern Baptist
Theological Seminary

Colangelo College of Business

Dr. Randy Gibb

Dean, Colangelo College of Business
B.S., US Air Force Academy; M.S.E., Arizona State University;
M.A., Naval Command & Staff College; Ph.D., Arizona State
University

Allison Mason

Assistant Dean, Colangelo College of Business
B.A., Winona State University, M.Ed, Northern Arizona University,
M.B.A., Grand Canyon University

Honors College

Breanna Naegeli

Associate Dean, Honors College
B.A. Bethany College; M.A. Argosy University

Faculty

For a current list GCU faculty, please visit the [Faculty Directory](#).

Qualified Faculty

GCU complies with the Higher Learning Commission standards related to faculty qualifications. All Grand Canyon University faculty must meet specific academic and experiential qualifications defined by the University in order to be approved to teach GCU students. A current list of GCU's full-time faculty is available at <https://www.gcu.edu/faculty-list>.

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

Course Descriptions

Accounting (ACC)

ACC-240♦: Fundamentals of Accounting 4 credits

In this course, students examine basic accounting concepts and explore how accounting information assists business leaders in making financial decisions that increase profitability and contribute to competitive advantage. There is specific emphasis on the analysis of financial statements in the business decision-making process, budgeting, and factors businesses must consider when determining appropriate pricing of goods and services.

Prerequisite: MAT-144 or MAT-154.

ACC-240XV: Fundamentals of Accounting 4 credits

In this course, students examine basic accounting concepts and explore how accounting information assists business leaders in making financial decisions that increase profitability and contribute to competitive advantage. There is specific emphasis on the analysis of financial statements in the business decision-making process, budgeting, and factors businesses must consider when determining appropriate pricing of goods and services.

Prerequisite: MAT-144 or MAT-154.

ACC-250♦: Financial Accounting 4 credits

This course is an introduction to the accounting cycle and the construction of financial statements. Students explore the fundamental principles and practices of financial accounting as outlined by Generally Accepted Accounting Principles (GAAP); the steps in the accounting cycle from journalizing transactions through the preparation of financial statements; and the use and interpretation of the balance sheet, income statement, and statement of cash flows. Prerequisite: MAT-134, MAT-144 or MAT-154.

ACC-260♦: Management Accounting 4 credits

This course is an introduction to the use of managerial accounting data in the decision-making process. Topics include the use of cost-volume-profit (CVP) analysis and relevant costs in decision making, using budgets and the balanced scorecard to evaluate performance, methods for setting prices of products and services, and analyzing capital investment opportunities. Prerequisite: ACC-250.

ACC-350♦: Managerial Accounting 4 credits

This course is an introduction to the use of managerial accounting data in the decision-making process. Topics include the use of cost-volume-profit (CVP) analysis and relevant costs in decision making, using budgets and the balanced scorecard to evaluate performance, methods for setting prices of products and services, and analyzing capital investment opportunities. Prerequisite: ACC-250.

ACC-360♦: Cost Accounting 4 credits

This course provides a study of principles of internal accounting, including job order systems, process costing, activity-based costing, and budgeting. Prerequisite: ACC-260 or ACC-350.

ACC-370♦: Intermediate Accounting I 4 credits

This course is an in-depth study of accounting objectives, principles, theory, and practice as related to the balance sheet and income statement. Students explore the accounting cycle, the preparation of detailed financial statements in accordance with Generally Accepted Accounting Principles (GAAP), accounting for assets, and other items frequently addressed on the Uniform Certified Public Accounting Examination (Uniform CPA Exam). Prerequisite: ACC-260 or ACC-350.

ACC-371♦: Intermediate Accounting II 4 credits

This course is an in-depth study of accounting objectives, principles, theory, and practice as related to the balance sheet and income statement. Students explore liabilities and equity items; the specific rules for accounting for pensions; postretirement benefits, leases, and accounting changes; and other items frequently addressed on the Uniform Certified Public Accounting Examination (Uniform CPA Exam). Prerequisite: ACC-370.

ACC-460♦: Taxation 4 credits

This course provides a study of the theory and practices of accounting for income taxes of corporations, partnerships, estates, trusts, and individuals. Prerequisite: ACC-250.

ACC-485♦: Advanced Accounting 4 credits

This course provides a study of accounting theory as it applies to partnerships and business combinations, international accounting, and governmental accounting. Prerequisites: ACC-370 and ACC-371.

ACC-486♦: Financial Statement Analysis 4 credits

This course provides a detailed analysis and interpretation of a firm's three principal financial statements and their uses from a managerial perspective. Prerequisites: ACC-240, ACC-260, or ACC-350; and FIN-350.

ACC-491♦: Auditing 4 credits

Auditing is an examination of generally accepted auditing standards, procedures involved in the auditing process, and ethical issues faced by the auditor. Through class discussions, practical applications and case studies, students learn the responsibilities of the independent public auditor in the expression of opinion within the guidelines set by the AICPA's Code of Professional Ethics. Topics include the nature and types of audits, auditor responsibilities and legal liabilities, audit reports, auditing procedures, ethical issues, contemporary issues in auditing, and the Sarbanes-Oxley Act of 2002. Prerequisites: ACC-260 or ACC-350, and ACC-370.

ACC-502: Accounting Practices 4 credits

This course is designed for individuals who are preparing for more advanced coursework in accounting and for students who have not had accounting in undergraduate work. Topics covered include the principles and practices of financial accounting and the fundamentals of managerial accounting, such as cost behavior and budgeting. The course covers accounting theories using computational examples, and homework is problem solving.

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | ^ Non-Transferable

ACC-613: Taxation 4 credits

This course is a study of the theory and practices of accounting for income taxes of corporations, partnerships, estates, trusts, and individuals.

ACC-616: Financial Research and Compliance 4 credits

This course provides students with applied research experience using electronic databases to determine proper application of GAAP, IASs, and IFRSs to practical situations. Students develop the skills needed to access accounting, auditing, and taxation rules and regulations; company financial statements; and related industry data used for analyzing financial statements.

ACC-622: Accounting Information Systems 4 credits

This course provides students with an analysis of current practices and techniques used to design, install, operate, and manage an integrated accounting system in either a manual or a computerized setting. Application controls, information security requirements, and integration with other business information systems are examined.

ACC-650: Managerial Accounting 4 credits

This course covers managerial accounting concepts and procedures for internal reporting, including the study of cost behavior, cost systems, budgeting, and performance evaluation. Coursework includes case studies, group projects, and class discussion. Prerequisite: ACC-502.

ACC-653: Advanced Managerial and Cost Accounting 4 credits

This course is focused on key managerial and cost accounting concepts and methods. Students examine why, when, and how cost information is used to make effective decisions that lead a firm to success.

ACC-660: Advanced Financial Accounting 4 credits

This course is an exploration of advanced topics in financial accounting and reporting, including recognition, measurement, and valuation issues affecting corporations, partnerships, consolidated entities, not-for-profits, government, and international operations. Prerequisite: ACC-650.

ACC-667: Advanced Audit 4 credits

This course provides an overview of auditing concepts related to forensic accounting, the internal audit function, operational auditing, and auditing information systems. In addition, students will become familiar with fraudulent financial reporting and the prevention and detection of irregularities. Prerequisites: ACC-616, and BUS-623.

ACC-668: Advanced Taxation 4 credits

This course is a study of the theory and practices of accounting for income taxes of corporations, partnerships, estates, and trusts. In addition, students will explore advanced tax planning concepts, including international tax implications. Prerequisites: ACC-616 and BUS-623.

ACC-670: Advanced Financial Statement Analysis 4 credits

This course covers in-depth analysis and interpretation of corporate financial reports. Students examine the form, content, and general accounting principles governing the construction of financial statements. There is particular emphasis on the analysis and interpretation of financial data as well as on the utility and limitations of financial accounting data. Prerequisites: ACC-650 or ACC-653, and ACC-660.

ACC-690^Δ: Capstone I 4 credits

This course is an introduction to the Uniform CPA exam. It is designed to prepare students for the Financial Accounting and Reporting (FAR) and Business Environment Concepts (BEC) parts of the exam.

ACC-691^Δ: Capstone II 4 credits

This course is designed to help students to prepare for the Auditing (AUD) and Regulation (REG) sections of the Uniform Certified Public Accountant (CPA) Exam. Students will review materials frequently tested on the Uniform CPA Exam and will use practice questions, problems, and simulations to demonstrate mastery of accounting concepts.

Administration (ADM)

ADM-530: Public and Nonprofit Administration 4 credits

This course examines the day-to-day duties of public administrators. Relationship building, political awareness, and collaborative strategies are highlighted throughout the course. How to best employ skills for the effective running of an organization is incorporated.

ADM-560: Influence, Power, and Politics in Public Administration 4 credits

This course examines power and political structures employed within public administration. The ethical use of power and how to effectively influence others in public administration is practiced.

ADM-614: Economics for Public Administrators 4 credits

In this course, the role of government in the economy is explored within the general context of market failure and social equity. Topics include allocation of goods and services, income distribution, externalities, public goods, and public choice theory. This course also examines the impact of macroeconomic events and policy decisions on the budgets and service levels of public entities.

ADM-620: Leading Public Organizations 4 credits

This course examines leadership practices and qualities necessary to lead an organization. A focus is given to the science of organizational behavior and how it contributes to effective leaders and managers.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ADM-624: Public Governance 4 credits

This course focuses on how government and public organizations serve their stakeholders, the manner in which their services are carried out, how resources are managed, and how regulatory powers are complied with and/or managed. The best practices in public governance, issues related to transparency, participation, and accountability are examined.

ADM-626: Public Budgeting and Financial Management 4 credits

This course provides an introduction to the revenue and expenditure structure of the public sector, including revenue policy, expenditure policy, and budget structure and administration.

ADM-630: Introduction to the Nonprofit and NGO Sector 4 credits

This course explores the theories and concepts of nonprofit and nongovernmental organizations, stressing their waxing importance in the domestic and international arenas. In particular, the course examines the history, structure, management, missions, and future of nonprofits and NGOs.

ADM-632: Intergovernmental Relations 4 credits

This course examines in detail the relationships among the federal, state, and municipal levels of government in the United States. The history of U.S. federalism is briefly covered, followed by a more in-depth focus on such issues as competition among levels and branches of government, the challenge of institutional fragmentation, and the role of governmental interest groups. Specific policy issues (education, health care, social services) are used to examine and analyze the dynamics of these relationships.

ADM-634: Policy Studies 4 credits

This course focuses on how challenges and problems facing society become policy issues. Leading theories in policy analysis and the policy-making process are examined and critiqued. The impact of policy decisions on various groups within society (related to gender, age, ethnicity, etc.) is also examined.

ADM-636: Law and Administrative Process 4 credits

An introduction to law relevant to public administration, this course covers selected topics in administrative and constitutional law, including the exercise of governmental power, legislative and executive oversight, rule making, adjudication, and judicial review.

ADM-638: Fundamentals of Community Development 4 credits

This course reviews the theoretical concepts on community development. The practice of community development includes effective mobilization, building, and management of collective efforts. In particular, the course explores the social, political, economic, environmental, and religious aspects of community-based collective action to solve pressing problems.

ADM-640: Program Evaluation 4 credits

This course examines systematic program evaluation using various research methods. A focus is given to Local and State programs and policies.

ADM-641: Funding and Program Evaluation of Nonprofit Organizations 4 credits

This course addresses the many facets of funding for nonprofit organizations. Relationship building, in addition to various funding strategies are covered. Approaches to keep an organization on solid financial ground are examined.

ADM-645: Strategic Planning and Program Evaluation in Healthcare 4 credits

This course exposes students to the role strategic planning and program evaluation play in developing, implementing, and assessing public health care programs. The use of a strategic planning and program evaluation framework for program proposals is covered.

Advertising (ADV)

ADV-110: Fundamentals of Advertising 4 credits

This course introduces the fundamentals of the advertising industry including basic elements of campaign strategy and design. Students learn the foundational communication and writing skills necessary to create effective campaigns. Contemporary legal and ethical issues in advertising are also addressed. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu.

ADV-250: Advanced Design Fundamentals 4 credits

This course builds on design fundamentals by increasing students' understanding of content development and production methods within the advertising design process. Students will create and produce advertising campaigns and products of various scope and size. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: ADV-110, DDN-110.

ADV-250HN⁴: Advanced Design Fundamentals 4 credits

This course builds on design fundamentals by increasing students' understanding of content development and production methods within the advertising design process. Students will create and produce advertising campaigns and products of various scope and size. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: ADV-110, DDN-110.

⁴ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ADV-260^{▲♦}: Advertising Copywriting 4 credits

This writing intensive course focuses on creative copywriting techniques to develop advertising campaigns for print and multimedia channels. Students enhance persuasive writing skills to create compelling and ethical advertising campaigns that are competitive in the industry. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: ENG-106.

ADV-340^{▲♦}: Media Law and Ethics 4 credits

This writing intensive course provides an overview of the laws and regulations that apply to advertising, marketing, and media organizations with emphasis on business organization, intellectual property, and regulatory processes. Ethical practices and theory as they apply to the mass media industry are also addressed. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu.

ADV-340HN^{▲♦}: Media Law and Ethics 4 credits

This writing intensive course provides an overview of the laws and regulations that apply to advertising, marketing, and media organizations with emphasis on business organization, intellectual property, and regulatory processes. Ethical practices and theory as they apply to the mass media industry are also addressed. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu.

ADV-350^{▲♦}: Digital Advertising Communication 4 credits

This writing intensive course explores integrated marketing communications and the development of marketing and advertising messages across digital platforms. Students focus on current trends in online advertising, social media platforms, and relevant emerging technologies. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: ADV-260.

ADV-350HN^{▲♦}: Digital Advertising Communication 4 credits

This writing intensive course explores integrated marketing communications and the development of marketing and advertising messages across digital platforms. Students focus on current trends in online advertising, social media platforms, and relevant emerging technologies. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: ADV-260.

ADV-355: Image Creation 4 credits

Students learn methods of image creation, including vectors, typographic, and pixel-based imagery manipulation, for the purposes of aligning image production with advertising campaign strategy. Emphasis is placed on selection of appropriate imagery through analysis of audience needs, historical representation of ideas, stereotypes, and cultural iconography. Each student will need a laptop computer with the Adobe Creative Cloud subscription. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: DDN-110.

ADV-371[♦]: Design Studio I 4 credits

Students work with industry-based projects within a highly collaborative environment to develop strong strategy and concept development methodologies. Projects focus on production methods for print, web, and digital media. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: DDN-210.

ADV-456[♦]: Design Studio II 4 credits

In this course students use the principles of user experience and user interaction to improve client-brand relationships within industry-based projects. Students create client and consumer profiles and develop projects within a highly collaborative environment. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: ADV-371.

ADV-471[♦]: Design Studio III 4 credits

Working with industry-based projects, students act as art directors to concept, develop, and produce interactive and multi-platform advertising solutions within a highly collaborative environment. Working in teams, students strengthen their process of collaboration from initial project identification through to final production. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: ADV-456.

Aerospace Studies (AES)

[▲] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

AES-101: Air Force Today I 2 credits

Every Fall. A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps (AFROTC). Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems and an introduction to communication skills. Leadership Laboratory (AES-102) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences.

AES-102: Leadership Laboratory 0 credits

Every Fall. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. It is a student planned, organized, and executed practicum conducted under the supervision of the detachment commander and commandant of cadets. Leadership Lab emphasizes common Air Force customs and courtesies, drill and ceremonies, health and physical fitness through group participation. Co-requisite: AES-101.

AES-103: The Air Force Today II 2 credits

Every Spring. A survey and follow-on course to AES-101 designed to introduce students to the United States Air Force and encourage participation in Air Force Reserve Officer Training Corps (AFROTC). Featured topics include: introduction to leadership, Air Force Core Values, introduction to interpersonal communication and team building, and a continuation of communication skills. Prerequisite: AES-101. Co-Requisites: Leadership Laboratory (AES-104) is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

AES-104: Leadership Laboratory 0 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. It is a student planned, organized, and executed practicum conducted under the supervision of the detachment commander and commandant of cadets. Prerequisites: AES-104 is a continuation of AES-102 with more in-depth emphasis on learning the environments and dynamics of an Air Force officer. Co-Requisite: AES-103.

AES-201: Evolution of USAF Air/Space Power 2 credits

Every Fall. This course focuses on facilitating the transition from Air Force ROTC cadet to Air Force ROTC candidate. The course is designed to examine the general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the modern technology currently used in overseas contingency operations. Featured topics include: Air Force heritage, Air Force leaders, introduction to ethics and values, group leadership problems and continuing application of communication skills. Leadership Laboratory (AES-202) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences. Prerequisite: AES-103.

AES-202: Leadership Laboratory 2 credits

Every Fall. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. AES-202 provides application of advanced drill and ceremonies, issuing commands, knowing flag etiquette, and developing, directing, and evaluating skills to lead others. Co-requisite: AES-201.

AES-202A: Leadership Laboratory 0 credits

Every Fall. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. AES-202A provides application of advanced drill and ceremonies, issuing commands, knowing flag etiquette, and developing, directing, and evaluating skills to lead others. Co-requisite: AES-201.

AES-203: Evolution of USAF Air/Space Power 2 credits

Every Spring. Continuation of AES-201. The course provides students with knowledge level understanding for general element and employment of air and space power. Furthermore, it discusses the importance of Air Force Core Values with use of operational examples and historical Air Force leaders. Continues to develop communication skills. Topics include: the Air Force mission and organization, modern joint expeditionary Airmen, officer opportunities, and professionalism. Prerequisite: AES-201 or department approval. Co-Requisites: Leadership Laboratory (AES-204) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences.

AES-204: Leadership Laboratory 0 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-202 with an emphasis on preparation for field training. Co-requisite: AES-203.

AES-294A: Air Force Physical Fitness 2 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-202 with an emphasis on preparation for field training. Co-requisite: AES-203.

AES-294B: Air Force Physical Fitness 2 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-202 with an emphasis on preparation for field training. Co-requisite: AES-203.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

AES-294C: Air Force Physical Fitness 2 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-202 with an emphasis on preparation for field training. Co-requisite: AES-203.

AES-294D: Air Force Physical Fitness 2 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-202 with an emphasis on preparation for field training. Co-requisite: AES-203.

AES-294E: Air Force Physical Fitness 2 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-202 with an emphasis on preparation for field training. Co-requisite: AES-203.

AES-294F: Air Force Physical Fitness 2 credits

Instruction on adapted physical activities to promote a healthy Air Force lifestyle mixed with a variety of sports and sports activities to include calisthenics, sit-ups, push-ups, running, basketball, volleyball, and other physical events. Co-Requisite: AES-101, AES-103, AES-201, AES-203, AES-301, AES-303, AES-401 or AES-403.

AES-294G: Air Force Physical Fitness 2 credits

Instruction on adapted physical activities to promote a healthy Air Force lifestyle mixed with a variety of sports and sports activities to include calisthenics, sit-ups, push-ups, running, basketball, volleyball, and other physical events. Co-Requisite: AES-101, AES-103, AES-201, AES-203, AES-301, AES-303, AES-401 or AES-403.

AES-294H: Air Force Physical Fitness 2 credits

Instruction on adapted physical activities to promote a healthy Air Force lifestyle mixed with a variety of sports and sports activities to include calisthenics, sit-ups, push-ups, running, basketball, volleyball, and other physical events. Co-Requisite: AES-101, AES-103, AES-201, AES-203, AES-301, AES-303, AES-401 or AES-403.

AES-301: U.S. Air Force Communication Management Leadership 3 credits

Every Fall. A study of leadership, quality management fundamentals, professional knowledge, Air Force personnel evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical applications of the concepts being studied. Individual leadership skills and personal strengths and weaknesses are applied to the Air Force environment. Prerequisite: AES-203. Co-Requisites: Leadership Laboratory (AES-302) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences.

AES-302: Leadership Laboratory 0 credits

Every Fall. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Advanced leadership experiences applying leadership and management principles to motivate and enhance the performance of other cadets. Leadership traits and abilities are enhanced. Co-Requisite: AES-301.

AES-303: Air Force Leadership Studies II 3 credits

Every Spring. AES-303 is a continuation of AES-301 on the study of leadership and management fundamentals, professional knowledge, leadership ethics, and communicative skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied. Prerequisite: AES-203. Co-Requisites: Leadership Laboratory (AES-304) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences.

AES-304: Leadership Laboratory 0 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-302 with emphasis on planning the military activities of the cadet corps and applying advanced leadership methods. Co-Requisite: AES-303.

AES-401: National Security Affairs 3 credits

Every Fall. The course examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest include the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting the military profession. Within this structure, continued emphasis is given to the refinement of communication skills. Prerequisite: AES-303. Co-Requisites: Leadership Laboratory (AES-402) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

AES-402: Leadership Laboratory 0 credits

Every Fall. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Advanced leadership experience demonstrating learned skills in planning and controlling the military activities of the corps. Co-Requisite: AES-401.

AES-403A: Regional Security Issues 3 credits

Every Spring. Continuation of AES-401 which examines regional studies and advanced leadership ethics. Special topics of interest focus on the military as a profession, officership, military justice, preparation for active duty, and current issues affecting military professionalism. Special emphasis is given on the transition from civilian to military life and what it takes to be a good second lieutenant in the United States Air Force. Co-requisite: Leadership Laboratory (AES-404) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences. Prerequisite: AES-401 Co-Requisites: Leadership Laboratory (AES-404) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences.

AES-404: Leadership Laboratory 0 credits

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities designed to meet the needs and expectations of prospective Air Force second lieutenants and complement the AFROTC academic program. Continuation of AES-402 with emphasis on preparation for transition from civilian to military life. Co-Requisite: AES-403.

Applied Management (AMP)

AMP-415[♦]: Financial Decision Making 4 credits

This course is a study of the components of primary financial statements and the use of these statements to analyze the performance of a business entity, including selected managerial accounting topics that assist in internal decision making.

AMP-425: Marketing Environment 4 credits

This course surveys the marketing mix and marketing concept; markets and buyer behavior; product, service, and relationship marketing for global competition; creating and keeping customers in an e-commerce world; branding and positioning; distribution strategies; integrated marketing communications; and pricing strategies.

AMP-434: Human Resources 4 credits

This course is a study of the human resource management function in organizations, including detailed coverage of staffing, organizational development, compensation and benefits administration, and employee relations. Emphasis is placed on how human resource management as a whole enhances organizational performance and success. Prerequisite: MGT-420.

AMP-450V: Leadership and Vocation 3 credits

This course emphasizes major leadership approaches and models used within health care today. Topics include regulatory leadership, servant leadership, and formal and informal leadership roles. Students have an opportunity to analyze leadership approaches to decision making and the impact of professional mentorship. The significance and use of collaborative leadership, communication, and decision making, in health care are explored. Students examine leadership behaviors that leverage diversity and foster inclusion to ensure professionalism and the professional responsibility of leaders today.

AMP-492: Organizational Change and Development 4 credits

This course provides an overview of approaches to organizational development with an emphasis on the practical aspects of changing organizations to improve effectiveness.

Acute Care Nurse Practitioner (ANP)

ANP-635^Ω: Health Promotion and Maintenance and On-Campus Experience I 4 credits

This course covers preventive health care practices and integrates cultural and spiritual considerations, environmental factors, genetic influences, and national public health objectives. Emphasis is placed on development of the advanced practice registered nurse-patient relationship to enhance the effectiveness of patient education, counseling, and promotion of healthy lifestyle changes. Students explore concepts relevant to acute care, including integration of the family and patient support systems into care. Specific emphasis is placed on clinical diagnostic reasoning and interpretation and the development of differential diagnoses based on clinical practice guidelines. Students examine professional and patient community resources and evaluate the use of integrative healing strategies in assisting patients to achieve health goals using evidence-based research. This course includes a required 3-day, on-campus experience. Prerequisite: NUR-634.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ANP-635CE^Ω: ANP-635 On-Campus Experience I 0 credits

This course covers preventive health care practices and integrates cultural and spiritual considerations, environmental factors, genetic influences, and national public health objectives. Emphasis is placed on development of the advanced practice registered nurse-patient relationship to enhance the effectiveness of patient education, counseling, and promotion of healthy lifestyle changes. Students explore concepts relevant to acute care, including integration of the family and patient support systems into care. Specific emphasis is placed on clinical diagnostic reasoning and interpretation and the development of differential diagnoses based on clinical practice guidelines. Students examine professional and patient community resources and evaluate the use of integrative healing strategies in assisting patients to achieve health goals using evidence-based research. This course includes a required 3-day, on-campus experience. Prerequisite: NUR-634.

ANP-650^Ω: Adult-Gerontology Acute Care I 7 credits

This course focuses on evidence-based theory and research related to adult-gerontological patients experiencing acute illnesses with comorbidities. Students synthesize data from a variety of health resources related to the care of the adult-gerontological patient. Students analyze common problems seen in the acute care setting to develop prioritized differential diagnoses, make clinical judgments, and recommend appropriate treatments for acute alterations in health with particular emphasis on restorative care. Clinical practice affords students the opportunity to refine their clinical decision-making skills in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of acute and chronically ill adult-gerontological patients. Practicum experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community. Practicum/field experience hours: 225. Prerequisite: ANP-635.

ANP-652^Ω: Adult-Gerontology Acute Care II 7 credits

This course continues to focus on evidenced-based theory and research related to acute illnesses in the adult-gerontological population in the acute care setting. Students build on prior knowledge and synthesize data from a variety of health resources related to the care of the acutely ill patient. Utilizing a systems framework, students further develop clinical judgment and decision-making skills in order to recommend treatments for alterations in different systems as they develop an evidence-based plan of care. Clinical practice affords students the opportunity to refine their clinical decision-making skills in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of acute and chronically ill adult-gerontological patients. Practicum experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community. Practicum/field experience hours: 225. Prerequisite: ANP-650.

ANP-654^Ω: Adult-Gerontology Acute Care III 7 credits and On-Campus Experience II

This course serves as the final synthesis of evidenced-based theory and research related to care of complex, acute, and critically ill adult-gerontological and frail elderly patients with comorbidities. Students continue to build on prior knowledge and synthesize data from a variety of health resources related to the care of the acutely ill patient. Utilizing a systems framework, students further develop appropriate clinical judgment and decision-making skills regarding appropriate recommendations and treatments related to alterations in different systems as they develop an evidence-based plan of care for adult-gerontological patients. Practicum experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community, and prepare the Adult Gerontology Acute Care Nurse Practitioner in the diagnosis and management of chronic, exacerbated, acute, and life-threatening health problems. This course includes a required 1-day, on-campus experience. Practicum/field experience hours: 225. Prerequisite: ANP-652.

ANP-654CE^Ω: ANP-654 On-Campus Experience II 0 credits

This course serves as the final synthesis of evidenced-based theory and research related to care of complex, acute, and critically ill adult-gerontological and frail elderly patients with comorbidities. Students continue to build on prior knowledge and synthesize data from a variety of health resources related to the care of the acutely ill patient. Utilizing a systems framework, students further develop appropriate clinical judgment and decision-making skills regarding appropriate recommendations and treatments related to alterations in different systems as they develop an evidence-based plan of care for adult-gerontological patients. Practicum experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community, and prepare the Adult Gerontology Acute Care Nurse Practitioner in the diagnosis and management of chronic, exacerbated, acute, and life-threatening health problems. This course includes a required 1-day, on-campus experience. Practicum/field experience hours: 225. Prerequisite: ANP-652.

Arts Education (ARE)

ARE-337: Integrated Arts Methods and Assessment in the Elementary School 4 credits

This course explores an integrative arts model, using methods and assessments for teaching theatre and dance in elementary curriculum. Lesson planning and curriculum design are tied to state standards for theatre and dance education. Practicum/field experience hours: 20. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ARE-480^Ω: Student Teaching: Arts Education 12 credits

This course consists of a K-12 classroom-based student teaching experience. The teacher candidate is assigned an approved school with a certified cooperating teacher, a university supervisor, and a student teaching course instructor. The course includes practical classroom experiences, research and analysis, and teaching duties that support the compilation and creation of a Teacher Work Sample (TWS). Fingerprint clearance required. Prerequisites: Fingerprint Clearance; successful completion of all courses in program of study and content area; senior status; a 2.8 GPA; successful completion of state mandated basic skills and content area exams or Praxis I® (Basic Skills) and Praxis II® (Content Area); Arizona residents are required to take the Arizona Educator Proficiency Assessments. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

Athletic Training (ATP)

ATP-214^Ω: Care, Treatment, and Prevention of Athletic Injuries 3 credits

This course provides students with a basic knowledge and understanding of the principles of sports medicine, the care and treatment of athletic trauma, and the use of proper conditioning principles for the prevention of injury. Prerequisites: BIO-155 and BIO-155L or BIO-201 and BIO-201L. Co-Requisite: ATP-214L.

ATP-214L^Ω: Care, Treatment, and Prevention of Athletic Injuries Lab 1 credits

This lab complements and supports the principles taught in the lecture course and provides students with a basic knowledge and understanding of the principles of sports medicine, the care and treatment of athletic trauma, safety and its importance in related settings, and the use of proper conditioning principles in the prevention of injury. Prerequisites: BIO-155 and BIO-155L or BIO-201 and BIO-201L. Co-Requisite: ATP-214.

ATP-256^{Ω♦}: Health Promotion and Wellness Protection 4 credits

This course includes the study of the general principles of health maintenance and promotion. Students learn the role of exercise, including flexibility, strength training, and cardiovascular conditioning in maintaining a healthy lifestyle. Topics include nutrition and dietary requirements for health and weight management. Students administer testing procedures to obtain baseline data regarding a patient's level of general health and use this data to design a program specific to the performance and health goals of the patient. In addition, this course reviews the basics of evidence-based practice in athletic training. Prerequisites: BIO-201 and BIO-201L.

ATP-301^Ω: Recognition and Evaluation of Injuries I 3 credits

This course provides students with the specific knowledge and practical skills required to perform proper evaluation of the upper and lower body. Students learn to palpate body and soft tissue structures, and perform active, passive, and resistive range of motion testing, neurological testing, and special ligament tests for the major synovial joints in the body. Students are provided multiple opportunities to reinforce their knowledge with hands-on practice. Prerequisites: ATP-214, ATP-214L, BIO-202, BIO-202L, and acceptance into the Athletic Training program. Co-Requisite: ATP-301L.

ATP-301HN[‡]: Recognition and Evaluation of Injuries I 3 credits

This course provides students with the specific knowledge and practical skills required to perform proper evaluation of the upper and lower body. Students learn to palpate body and soft tissue structures, and perform active, passive, and resistive range of motion testing, neurological testing, and special ligament tests for the major synovial joints in the body. Students are provided multiple opportunities to reinforce their knowledge with hands-on practice. Prerequisites: ATP-214, ATP-214L, BIO-202, BIO-202L, and acceptance into the Athletic Training program. Co-Requisite: ATP-301L.

ATP-301L^Ω: Recognition and Evaluation of Injuries I Lab 1 credits

This lab complements and supports the principles taught in the lecture course and provides students with the specific knowledge and practical skills required to perform proper evaluation of the lower body. Students learn to palpate body and soft tissue structures, and perform active, passive, and resistive range of motion testing, neurological testing, and special ligament tests for the major synovial joints in the body. Students are provided multiple opportunities to reinforce their knowledge with hands-on practice. Prerequisites: ATP-214, ATP-214L, BIO-202, BIO-202L, and acceptance into the Athletic Training program. Co-Requisite: ATP-301.

ATP-301LHN[‡]: Recognition and Evaluation of Injuries I Lab 1 credits

This lab complements and supports the principles taught in the lecture course and provides students with the specific knowledge and practical skills required to perform proper evaluation of the lower body. Students learn to palpate body and soft tissue structures, and perform active, passive, and resistive range of motion testing, neurological testing, and special ligament tests for the major synovial joints in the body. Students are provided multiple opportunities to reinforce their knowledge with hands-on practice. Prerequisites: ATP-214, ATP-214L, BIO-202, BIO-202L, and acceptance into the Athletic Training program. Co-Requisite: ATP-301.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ATP-302^Ω: Recognition and Evaluation of Injuries II 3 credits

Building on concepts from ATP-301, this course provides students the opportunity to further analyze and apply skills in the areas related to the components of injury evaluation of the upper extremity, including history taking, inspection, palpation, joint movement, manual muscle testing, joint stability tests, neurological testing, and formulation of both a clinical and a differential diagnoses. Prerequisites: ATP-301, ATP-301L, ATP-315, and ATP-315L. Co-Requisite: ATP-302L.

ATP-302HN[†]: Recognition and Evaluation of Injuries II 3 credits

Building on concepts from ATP-301, this course provides students the opportunity to further analyze and apply skills in the areas related to the components of injury evaluation of the upper extremity, including history taking, inspection, palpation, joint movement, manual muscle testing, joint stability tests, neurological testing, and formulation of both a clinical and a differential diagnoses. Prerequisites: ATP-301, ATP-301L, ATP-315, and ATP-315L. Co-Requisite: ATP-302L.

ATP-302L^Ω: Recognition and Evaluation of Injuries II Lab 1 credits

This lab complements and supports the principles taught in the lecture course and provides students with specific knowledge and practical skills required to perform proper evaluation of the upper extremity. This course also allows students to demonstrate differences between on-field and clinical evaluations, including history taking, inspection, palpation, joint movement, manual muscle testing, joint stability tests, neurological testing, and formulation of both a clinical and a differential diagnosis. Students are provided multiple opportunities to reinforce their knowledge with hands-on practice. Prerequisites: ATP-301, ATP-301L, ATP-315, and ATP-315L. Co-Requisite: ATP-302.

ATP-302LHN[†]: Recognition and Evaluation of Injuries II Lab 1 credits

This lab complements and supports the principles taught in the lecture course and provides students with specific knowledge and practical skills required to perform proper evaluation of the upper extremity. This course also allows students to demonstrate differences between on-field and clinical evaluations, including history taking, inspection, palpation, joint movement, manual muscle testing, joint stability tests, neurological testing, and formulation of both a clinical and a differential diagnosis. Students are provided multiple opportunities to reinforce their knowledge with hands-on practice. Prerequisites: ATP-301, ATP-301L, ATP-315, and ATP-315L. Co-Requisite: ATP-302.

ATP-310^Ω: Injury Prevention and Wellness Clinical 4 credits

This course provides a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. In this clinical course, students select, apply, evaluate, and modify appropriate standard protective equipment, taping, wrapping, bracing, padding, and other custom devices for the patient. Students administer testing procedures to obtain baseline data regarding a patient's level of general health (including nutritional habits, physical activity status, and body composition) and use these data to design, implement, evaluate, and modify a program specific to the performance and health goals of the patient. This includes instructing the patient in the proper performance of the activities, recognizing the warning signs and symptoms of potential injuries and illnesses that may occur, and explaining the role of exercise in maintaining overall health and the prevention of diseases. Students are assigned to a preceptor who provides supervision on a daily basis through constant visual and auditory interaction, providing feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, or professional) on true patients. Practicum/field experience hours: 150. Prerequisites: ATP-214, ATP-214L, ATP-256, BIO-202, BIO-202L, and acceptance into the Athletic Training program.

ATP-315^{Ω♦}: Emergency Care for Acute Injuries 3 credits

This course includes the study of the proper techniques in caring for patients by recognizing catastrophic and emergent conditions and treating appropriately. Students learn establishing and maintaining an airway, maintaining neutral spine alignment with an athlete wearing protective equipment, wound management, immobilization, transfer techniques including spine boarding, core body temperature, and caring for athletes with conditions such as asthma and diabetes. Students are prepared to complete Emergency Cardiac Care (ECC) certification upon completion of the course. Prerequisites: BIO-202, BIO-202L, and acceptance into the Athletic Training program. Co-Requisite: ATP-315L.

ATP-315L^{Ω♦}: Emergency Care for Acute Injuries Lab 1 credits

This lab complements and supports the principles taught in the lecture course, including the study of the proper techniques in caring for a patient by recognizing catastrophic and emergent conditions and treating appropriately. Students demonstrate establishing and maintaining an airway, maintaining neutral spine alignment with an athlete wearing protective equipment, wound management, immobilization, transfer techniques including spine boarding, core body temperature, and caring for athletes with conditions such as asthma and diabetes. Prerequisites: BIO-202, BIO-202L, and acceptance into the Athletic Training program. Co-Requisite: ATP-315.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ATP-401HN[‡]: General Medical Conditions 3 credits

This course provides a broad discussion of general medical conditions and associated pathologies of the physically active, as well as information applicable to athletes, coaches, and athletic trainers of all levels. This course covers evaluation techniques and equipment for all body systems, conditions, and special populations. Prerequisites: ATP-360 and ATP-360L. Co-Requisite: ATP-401L.

ATP-401L^Ω: General Medical Conditions Lab 1 credits

This lab complements and supports principles taught in the lecture course and provides a broad discussion of general medical conditions and associated pathologies of the physically active, as well as information applicable to athletes, coaches, and athletic trainers of all levels. This course covers evaluation techniques and equipment for all body systems, conditions, and special populations. Prerequisites: ATP-360 and ATP-360L. Co-Requisite: ATP-401.

ATP-401LHN[‡]: General Medical Conditions Lab 1 credits

This lab complements and supports principles taught in the lecture course and provides a broad discussion of general medical conditions and associated pathologies of the physically active, as well as information applicable to athletes, coaches, and athletic trainers of all levels. This course covers evaluation techniques and equipment for all body systems, conditions, and special populations. Prerequisites: ATP-360 and ATP-360L. Co-Requisite: ATP-401.

ATP-402^Ω: Pharmacology and Advanced Therapeutic Interventions 4 credits

This course examines current theories and practices of pharmacology and epidemiology of drug use as related to athletic training and sports medicine. The course also examines how to appropriately create a plan of care for a patient utilizing therapeutic modalities, rehabilitation, and pharmacologic interventions. Prerequisites: ATP-322, ATP-322L, ATP-360, ATP-360L, ATP-401, and ATP-401L.

ATP-420^Ω: Health Care Administration in Athletic Training 4 credits

This course establishes a framework for health care administration and management, tasks and techniques required in athletic training, health care programs, the health care industry, and interscholastic and intercollegiate athletics. Students assess their personal and professional readiness for management and leadership and acquire skills necessary for effective administration and leadership within the industry. Co-Requisite: ATP-450.

ATP-440^Ω: Therapeutic Interventions Clinical 4 credits

This course provides a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. In this clinical course, students perform a comprehensive clinical examination of a patient. Based on the assessment data and consideration of the patient's goals, the student creates and implements a therapeutic intervention that targets these treatment goals to include, as appropriate, therapeutic modalities, medications (with physician involvement as necessary), and rehabilitative techniques and procedures. Students integrate and interpret various forms of standardized documentation, including both patient-oriented and clinician-oriented outcome measures, to recommend activity level, make return-to-play decisions, maximize patient outcomes and progress in the treatment plan, and analyze injury data to formulate a prevention program. Students are assigned to a preceptor who provides supervision on a daily basis through constant visual and auditory interaction, providing feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, or professional) on true patients. Practicum/field experience hours: 150. Prerequisites: ATP-330, ATP-360, and ATP-360L.

ATP-450^Ω: General Medicine and Health Care Administration Clinical 4 credits

This course provides a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. Students develop, implement, and monitor prevention strategies for at-risk individuals (e.g., persons with asthma or diabetes, a previous history of heat illness, or sickle cell trait) and large groups to allow safe physical activity in a variety of conditions. This includes obtaining and interpreting data related to potentially hazardous environmental conditions, monitoring body functions (e.g., blood glucose, peak expiratory flow, hydration status), and making the appropriate recommendations for individual safety and activity status. Students also demonstrate the ability to recognize and refer at-risk individuals and individuals with psychosocial disorders or mental health emergencies. Students also demonstrate appropriate documentation and policy/procedure strategies. As part of this clinical experience, students will participate in a minimum of four weeks at an immersive clinical rotation. This rotation allows the student to partake in the totality of care associated with professional practice. Per CAATE Standard 55, "Clinical education may begin prior to or extend beyond the institution's academic calendar." The student's clinical immersion site will be selected by the program. Students are assigned to a preceptor who provides supervision on a daily basis through constant visual and auditory interaction, providing feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, or professional) on true patients. Practicum/field experience hours: 150. Prerequisites: ATP-401, ATP-401L, and ATP-440. Co-Requisite: ATP-420.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ATP-460^Ω: Advanced Athletic Training Clinical 4 credits

This course provides a clinical setting in which athletic training students apply and demonstrate proficiency in athletic training skills. Students demonstrate knowledge and skills assessed in previous clinical coursework while integrating evidence-based practice into clinical decision making. Students are assigned to a preceptor who provides supervision on a daily basis through constant visual and auditory interaction, providing feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, or professional) on true patients. Practicum/field experience hours: 150. Prerequisite: ATP-450.

ATP-480^{ΔΩ}: Athletic Training Capstone 3 credits

This writing-intensive capstone course serves as a culmination of the learning experiences during the athletic training education program at Grand Canyon University. Students are challenged to demonstrate higher level thinking, review evidence-based literature, and display athletic training professional behaviors. Students have the opportunity to identify a clinical practice problem, search the literature, and propose an evidence-based solution that results in practice improvement. Prerequisites: ATP-402, ATP-420, and ATP-450.

ATP-485^Ω: Athletic Training Board of Certification Exam Preparation 1 credits

This course prepares students to sit for the Athletic Training Board of Certification (BOC) exam. Students examine professional regulations and certification requirements and use practice exam questions to prepare for the certification exam. Prerequisite: ATP-420.

Behavioral Health Science (BHS)

BHS-240[♦]: Group Dynamics and Process 4 credits

This course provides a broad understanding of group development stages, group dynamics, group counseling theories, and ethical standards pertaining to group work. In addition, this course explores theoretical approaches to group work. The course also addresses the growth and development of group members.

BHS-320^Δ: Ethics of Behavioral Health Science 4 credits

This writing-intensive course provides a broad understanding of ethics, legal standards, and responsibilities in behavioral health. Students explore basic ethical concepts, legislation, and current trends in behavioral health ethics. This course pays special attention to technology and its effects on lawmaking and ethics in behavioral health. Important goals of this course are to help students develop a comprehensive understanding of the history and current application of ethics in the behavioral health field.

BHS-320HN^Δ: Ethics of Behavioral Health Science 4 credits

This writing-intensive course provides a broad understanding of ethics, legal standards, and responsibilities in behavioral health. Students explore basic ethical concepts, legislation, and current trends in behavioral health ethics. This course pays special attention to technology and its effects on lawmaking and ethics in behavioral health. Important goals of this course are to help students develop a comprehensive understanding of the history and current application of ethics in the behavioral health field.

BHS-330: Cultural and Social Diversity in Behavioral Health 4 credits

This course provides a comprehensive foundation through exploring the content areas of cultural diversity, social justice, and religious and spiritual values. Examination of these areas strives to offer an overarching framework to guide students and gain perspectives for working with multicultural populations in the behavioral health field. This course assists students with developing knowledge and application of cultural diversity, cultural competency, and the importance of self-awareness, social justice, and advocacy. In addition, this course provides students a blended approach of the beliefs and values associated with religion and spirituality as a component of cultural competency.

BHS-350: Report Writing, Research, and Information Literacy in Behavioral Health 4 credits

This course provides a comprehensive understanding of the various documentation styles used in the behavioral health field. Students critically examine evidence-based research in the field of behavioral health. The course offers an introduction to conducting applied clinical research.

BHS-420: Human Development 4 credits

This course provides an understanding of the nature and needs of individuals across the life-span development. This course covers physical, cognitive, and socioemotional development across various points in human development. Additionally, students learn about the influence of spiritual and moral beliefs throughout the life span.

BHS-420HN^Δ: Human Development 4 credits

This course provides an understanding of the nature and needs of individuals across the life-span development. This course covers physical, cognitive, and socioemotional development across various points in human development. Additionally, students learn about the influence of spiritual and moral beliefs throughout the life span.

BHS-430: Introduction to Family Dynamics 4 credits

This course introduces the historical and theoretical perspectives of family dynamics and systems. Topics include roles, communication styles, boundaries, generational patterns, cultural influences, and couples and parenting dynamics. Skills and modalities relevant to working with families in the behavioral health field are explored.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

BHS-430HN[†]: Introduction to Family Dynamics 4 credits

This course introduces the historical and theoretical perspectives of family dynamics and systems. Topics include roles, communication styles, boundaries, generational patterns, cultural influences, and couples and parenting dynamics. Skills and modalities relevant to working with families in the behavioral health field are explored.

BHS-440: Understanding Trauma 4 credits

This course offers an overview of various types of trauma, and effects of traumatic experiences within the physical, emotional, sociological, cognitive, and spiritual domains of a human being. It studies the dynamics of trauma throughout the human life-span development. It offers a brief overview of trauma, informed care assessment and treatment, and ethics associated with working with trauma victims.

BHS-450: Childhood and Adolescence Disorders 4 credits

This course provides students with an understanding of the biological, emotional, and environmental aspects that impact childhood and adolescent development. The course addresses assessment, diagnosis, and intervention as it relates to childhood and adolescent disorders. Students examine the classification and epidemiology of anxiety disorders, mood disorders, conduct problems, ADD/ADHD, language and learning, intellectual disabilities, autism spectrum disorders, schizophrenia, and other childhood- and adolescence-related disorders according to the DSM. Prerequisite: BHS-420.

BHS-455[♦]: Introduction to Childhood and Adolescent Physical and Behavioral Health 4 credits

This course provides a broad understanding of the components and theories related to childhood and adolescent physical and behavioral health. Also covered are the modalities that can be utilized to promote best practice approaches in behavioral health treatment of both children and adolescents. Students gain the necessary knowledge to advance in the Childhood and Adolescence Disorders emphasis program. Prerequisite: BHS-420.

BHS-460: Introduction to Couples and Family Systems 4 credits

This course introduces the historical and theoretical perspectives of couples and family systems. Topics include a review of family systems, including family of origin, and roles within couples and family systems. Also covered are the influence of family of origin attachment styles on couple and family dynamics, the developmental stages of couples, and characteristics of successful couples and families. Additionally, the course explores the impact of substance use and mental health illness, and cultural influences on couple and family dynamics. Treatment modalities in working with couples and families are explored. Prerequisite: PCN-100.

BHS-465: Marriage and Family Ethical and Legal Issues 4 credits

This course describes the ethical and legal practice of marriage and family therapy. Special emphasis is placed on the Marriage and Family Therapy Code of Ethics and rules and regulations as it pertains to working within the context of marriage and family therapy. Prerequisites: BHS-320 and BHS-430.

BHS-470: Introduction to Trauma-Informed Care 4 credits

This course offers an overview of the six key principles of the trauma-informed care approach. The purpose of the course is to develop knowledge and awareness about safety building, trustworthiness, peer support networking, connectedness, empowerment, cultural, historical, spiritual, and gender issues. In addition, the course addresses recovery, support systems, resiliency, and an integrated approach when working with trauma victims.

BHS-475: Overview of Assessment and Treatment of Trauma 4 credits

This course offers an overview of the evidence-based screening and assessment tools utilized in assessing the impact of trauma. In addition, this course will cover best practice approaches to trauma treatment. Prerequisite: BHS-470.

BHS-480: Infancy and Early Childhood Development 4 credits

This course provides a comprehensive overview of the cognitive, physical, and socioemotional developmental stages and sensitive periods of early human development. The course addresses the critical influence the care-getting environment has on brain development and how relationships change the structure of the brain both positively and negatively. The stages of human attachment and a brief overview of styles of attachment as they relate to development throughout the lifespan are also reviewed. Additionally, the course addresses the effects of prenatal maternal care, environment, and premature birth on developmental stages. Students understand how culture and socioeconomic status affects development.

BHS-485: Infancy and Early Childhood Disorders and Assessment 4 credits

This course provides an overview of a variety of assessments commonly used to diagnose disorders in early childhood. Students learn the importance of ongoing assessment, assessment in a variety of settings, and the importance of the caregiver-child relationship in assessment. Students are provided an overview of common disorders found in early childhood, and how the DC: 0-5 is used to accurately identify early childhood disorders. Students understand the role of cultural and familial influence on assessment and diagnosis. Prerequisite: BHS-480.

[†] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

BHS-490^Ω: Professional Capstone Project 4 credits

The capstone project is a culmination of the learning experiences while a student is within the behavioral health science program at Grand Canyon University's College of Humanities and Social Sciences. Students prepare a written proposal for a community-based behavioral health organization related to the student's specific area of focus. The proposal includes the name, geographical location, identified service gap, target populations, types of service/treatments, potential challenges, ethical considerations, and supervision/oversight considerations. The professional capstone project proposal needs to reflect synthesis and integration of course content. This capstone course needs to be completed at the end of program. Prerequisite: BHS-350.

Bible (BIB)

BIB-106[♦]: Old Testament Survey 4 credits

This course introduces the text of the Old Testament with emphasis on the biblical narrative, genres, major historical periods, and theological themes.

BIB-106XV: Old Testament Survey 4 credits

This course introduces the text of the Old Testament with emphasis on the biblical narrative, genres, major historical periods, and theological themes.

BIB-107[♦]: New Testament Survey 4 credits

This course introduces the text of the New Testament with emphasis on the biblical narrative, genres, major historical periods, and theological themes.

BIB-107XV: New Testament Survey 4 credits

This course introduces the text of the New Testament with emphasis on the biblical narrative, genres, major historical periods, and theological themes.

BIB-350[♦]: Pentateuch 4 credits

This course is an exegetical study of the first major division of the Old Testament with an emphasis on the application of hermeneutical principles. The class focuses on the interpretation of selected passages from the Pentateuch. Attention is also given to textual issues and major theological themes. Prerequisites: BIB-106 and BIB-355.

BIB-354[♦]: Jesus and His Interpreters 4 credits

This course focuses on the teachings and major events in the life of Jesus and the elaboration on those teachings in Paul's writings. Special attention is given to the person, teachings, and work of Jesus. Some pertinent issues in Pauline studies, such as the Judaizer conflict, the effect of Paul's conversion on his thinking and writing, and the sequence of his letters will be examined for their role in the development of the Gospel tradition. Prerequisite: BIB-107.

BIB-355^{Δ♦}: Biblical Interpretation and Application 4 credits

This writing-intensive course helps equip students to understand and use basic principles of biblical hermeneutics, including an introduction to the nature of Bible interpretation and the application to contemporary issues. The majority of the course focuses on developing practical procedures and step-by-step skills in exegesis of Scripture. Prerequisites: ENG-105 and BIB-106.

BIB-360[♦]: Gospels and Acts 4 credits

This course is an exegetical study of the initial books of the New Testament with an emphasis on the application of hermeneutical principles. The class focuses on the interpretation of selected passages from the Gospels and Acts. Attention is also given to textual issues and major theological themes. Prerequisites: BIB-107 and BIB-355.

BIB-365[♦]: Old Testament Writings 4 credits

This course addresses the historical books of the Old Testament (Joshua, Judges, Ruth, Samuel, Kings, Esther, Ezra, and Nehemiah), giving special attention to the text with regard to its politics, culture, religions, geographical setting, literary genre, and theological themes. Prerequisite: BIB-355.

BIB-370[♦]: Hebrew Poetical and Wisdom Literature 4 credits

This course is a study of Hebrew poetry and wisdom literature in the Old Testament. Attention is given to the development of the literature as well as an investigation of each book's composition and theological themes. Prerequisite: BIB-355.

BIB-380[♦]: Pauline Epistles 4 credits

This course provides an overview of the Apostle Paul's letters to the early New Testament churches. Special attention is given to the nature of Paul's ministry; the theological, social, and practical issues he addressed; and how these texts are relevant for faithful Christian living. Prerequisite: BIB-355.

BIB-455[♦]: Hebrew Prophets 4 credits

This course offers a critical study of the pre-exilic, exilic, and post-exilic prophets, with special consideration given to the social, political, and religious conditions of their times. Attention is given to the ministry and message of the prophets, in their day and today. Prerequisite: BIB-355.

BIB-465[♦]: The General Epistles 4 credits

This course covers Hebrews, James, 1 and 2 Peter, 1-3 John, and Jude as they relate to the theological and ethical content of Christianity. Students examine the nature, message, and historical context of the books. Prerequisite: BIB-355.

BIB-475[♦]: Johannine Literature 4 credits

This course provides an overview of the New Testament texts of the Apostle John. Special attention is given to the nature of John's ministry; the theological, social, and practical issues he addressed; and how these texts are relevant for faithful Christian living. Prerequisite: BIB-355.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

BIB-501: Old Testament Foundations 4 credits

This course surveys the text and historical background of the Old Testament with an introduction to hermeneutics and the proper interpretation of the books of the Old Testament.

BIB-502: New Testament Foundations 4 credits

This course surveys the text and historical background of the New Testament with an introduction to hermeneutics and the proper interpretation of the books of the New Testament.

BIB-610: Old Testament Exegesis: Prophets and Writings 4 credits

This course is an exegetical study of the second and third major divisions of the Old Testament. Special attention is given to key theological themes. Emphasis is also placed on the interpretation of selected passages from the prophets and writings and the application of elementary Hebrew language skills and interpretive tools. Prerequisite: HEB-501.

BIB-611: Old Testament Exegesis: Pentateuch 4 credits

This course is an exegetical study of the first major division of the Old Testament. Special attention is given to key theological themes. Emphasis is also placed on the interpretation of selected passages from the Pentateuch and the elementary Hebrew language skills and interpretive tools. Prerequisite: HEB-501.

BIB-620: New Testament Exegesis: Gospels and Acts 4 credits

This course is an exegetical study of the initial books of the New Testament. Special attention is given to key theological themes. Emphasis is placed on the interpretation of selected passages from the Gospels and Acts and the application of elementary Greek language skills and interpretive tools. Prerequisite: GRK-501.

BIB-621: New Testament Exegesis: Epistles and Revelation 4 credits

This course is an exegetical study of the latter books of the New Testament. Special attention is given to key theological themes. Emphasis is placed on the interpretation of selected passages from the New Testament epistles and the book of Revelation as well as the application of elementary Greek language skills and interpretive tools. Prerequisite: GRK-501.

BIB-650: Biblical Hermeneutics 4 credits

This course is a study of the basic principles of evangelical biblical interpretation, exegesis, and application, especially in the context of ministry, including an introduction to the use of biblical language tools.

BIO-130♦: Introduction to Life Sciences I 4 credits

This course introduces students to the concepts of the scientific method and critical thinking in making observations and formulating hypotheses. Students learn about the structure of cells, DNA replication and gene expression, metabolic pathways, cell cycle, and cell division. The final section of the class includes an overview of animal form and function, organs and organ systems, and physiological processes, with an emphasis on human systems.

BIO-155♦: Introduction to Anatomy and Physiology 3 credits

A study of the basic structure and function of the major systems of the human body, this course focuses on an in-depth exploration of the musculoskeletal and neurological systems for athletic training, health, and exercise science majors. This course also compares normal and abnormal function for more comprehensive understanding of the human body. Co-requisite: BIO-155L.

BIO-155L♦: Introduction to Anatomy and Physiology Lab 1 credits

This lab is designed to complement and support the principles taught in BIO-155. Upon successful completion of the course, students will be able to identify and describe functions, structures, and classifications of the skeletal, muscular, and organ systems along with related disorders. Co-requisite: BIO-155.

BIO-181♦: General Biology I 3 credits

This course is a study of biological concepts emphasizing the interplay of structure and function, particularly at the molecular and cellular levels of organization. Cell components and their duties are investigated, as well as the locations of cellular functions within the cell. The importance of the membrane is studied, particularly its roles in controlling movement of ions and molecules and in energy production. The effect of genetic information on the cell is followed through the pathway from DNA to RNA to protein. Co-requisite: BIO-181L.

BIO-181L♦: General Biology I - Lab 1 credits

This lab course is designed to reinforce principles learned in BIO-181 through experiments and activities which complement and enhance understanding of macromolecules, cell membrane properties, cellular components, and their contribution to cell structure and function. Assignments are designed to relate cellular processes such as metabolism, cell division, and the flow of genetic information to cell structure. Co-requisite: BIO-181.

BIO-182♦: General Biology II 3 credits

This course is a study of biological concepts emphasizing the interplay of structure and function at the molecular, cellular, and organismal levels of organization. Relationships of different life forms are studied, noting characteristics and general lifecycles of the different types of organisms, including bacteria, archaea, and eukaryotes. Plant structure, function, and reproduction are studied, as well as photosynthesis and plant nutrition. Ecological principles are discussed, including organism interactions at the various ecological levels. Principles of conservation are introduced. Prerequisite: BIO-181. Co-Requisite: BIO-182L.

Biology (BIO)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

BIO-182L♦: General Biology II - Lab 1 credits

This lab is designed to reinforce principles learned in BIO-182. Organisms are examined to recognize similarities and differences among different types. Plant structure and processes, including photosynthesis and water transport, are investigated through observation and activities. Concepts of ecology are explored through study of species interactions projects and other activities. Co-requisite: BIO-182.

BIO-191♦: Applied Anatomy and Physiology I 3 credits

This course examines the structure and function of the human body and mechanisms of homeostasis. This portion includes the study of cells; tissues; genetics; and the integumentary, skeletal, muscular, and nervous systems. Co-Requisite: BIO-191L.

BIO-191L♦: Applied Anatomy and Physiology I Lab 1 credits

This laboratory course examines the structure and function of the human body and mechanisms of homeostasis, complementing the lecture portion with a focus on anatomy. This portion includes the study of cells; tissues; and the integumentary, skeletal, muscular, and nervous systems. Co-Requisite: BIO-191.

BIO-192♦: Applied Anatomy and Physiology II 3 credits

This course examines the structure and function of the human body and mechanisms of homeostasis. This portion includes the study of metabolism; energetics; fluid, electrolyte and acid-base balance; and the endocrine, hematologic, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIO-191. Co-Requisite: BIO-192L.

BIO-192L♦: Applied Anatomy and Physiology II Lab 1 credits

This laboratory course examines the structure and function of the human body and mechanisms of homeostasis, complementing the lecture portion with a focus on anatomy. This portion includes the study of the endocrine, cardiovascular, respiratory, digestive, renal, and reproductive systems. Prerequisite: BIO-191L. Co-Requisite: BIO-192.

BIO-195: Fundamental Microbiology 3 credits

This course provides an introduction to the principles and applications of microbiology, including the study of microorganisms and their relationship to human health. Students develop an understanding of microbial cell structure and function, microbial genetics, pathologies, and other selected applied areas. Co-Requisite: BIO-195L.

BIO-195L: Fundamental Microbiology Lab 1 credits

The laboratory accompanying Fundamental Microbiology supports further learning surrounding principles gained in the lecture course. Students develop fundamental knowledge of microbiological laboratory techniques and application to real-world situations. Co-Requisite: BIO-195.

BIO-201♦: Human Anatomy and Physiology I 3 credits

This course is the first of a two-course sequence examining the structure and function of the human body and mechanisms for maintaining homeostasis within it. This portion includes the study of cells; tissues; genetics; and the integumentary, skeletal, muscular, and nervous systems. Co-requisite: BIO-201L.

BIO-201L♦: Human Anatomy and Physiology I: Lab 1 credits

This course is a systematic study of human gross anatomy and function. Topics include the integumentary, skeletal, muscular, and nervous systems. Co-Requisite: BIO-201.

BIO-202♦: Human Anatomy and Physiology II 3 credits

This course is the second of a two-course sequence examining the structure and function of the human body and mechanisms for maintaining homeostasis within it. This portion includes the study of immunity; metabolism; energetics; fluid, electrolyte and acid-base balance; and the endocrine, respiratory, digestive, urinary, and reproductive systems. Prerequisites: BIO-201 and BIO-201L. Co-requisite: BIO-202L.

BIO-202L♦: Human Anatomy and Physiology II-Lab 1 credits

This course is a systematic study of human gross anatomy and function. Topics include the endocrine, cardiovascular, respiratory, digestive, renal, and reproductive systems. Prerequisites: BIO-201 and BIO-201L. Co-Requisite: BIO-202.

BIO-205♦: Microbiology 3 credits

This course provides an introduction to the principles and applications of microbiology and a study of the general characteristics of microorganisms, their activities, and their relationship to humans. Students develop understanding of microbial cell structure and function, microbial genetics, related pathologies, immunity, and other selected applied areas. Co-requisite: BIO-205L.

BIO-205L♦: Microbiology - Lab 1 credits

The laboratory section of BIO-205 supports further learning surrounding principles gained in the lecture course. Students develop fundamental skills in microbiological laboratory techniques, microscopy methodologies, and the isolation and identification of pathogenic microorganisms. Co-requisite: BIO-205.

BIO-210♦: Anatomy and Physiology for Science Majors I 3 credits

This course examines human anatomy and physiology with an emphasis on function and homeostasis of the following areas: tissues, integument, skeletal system, muscular system, and the nervous system. Case studies are utilized to reinforce physiological processes. Prerequisites: BIO-181 and BIO-181L. Co-Requisite: BIO-210L.

BIO-210L♦: Anatomy and Physiology for Science Majors I Lab 1 credits

This course involves study of the gross anatomy and function of the skeletal, muscular, and nervous systems. This experiential lab involves an advanced exploration of concepts utilizing human cadavers and other supplemental materials. Prerequisites: BIO-181 and BIO-181L. Co-Requisite: BIO-210.

Δ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | Ω Non-Transferable

BIO-211♦: Anatomy and Physiology for Science Majors II 3 credits

This course examines human anatomy and physiology with an emphasis on function and homeostasis of the following systems: endocrine, cardiovascular, respiratory, digestive, urinary and reproductive. Case studies are utilized to reinforce physiological processes. Prerequisites: BIO-210 and BIO-210L. Co-Requisite: BIO-211L.

BIO-211L♦: Anatomy and Physiology for Science Majors II Lab 1 credits

This course involves study of the gross anatomy and functions of the endocrine, cardiovascular, respiratory, digestive, renal, and reproductive systems. This experiential lab involves an advanced exploration of concepts utilizing human cadavers and other supplemental materials. Prerequisites: BIO-210 and BIO-210L. Co-Requisite: BIO-211.

BIO-215♦: General Microbiology 3 credits

This course, designed for Science majors, introduces the principles of microbiology and the study of the general characteristics, growth, and diversity of microorganisms. Topics include microbial cell structure and function, bacterial genetics, immune response and immunization, physical and chemical control of microorganisms, specific characteristics and mechanisms of antimicrobial medications, and microbial diseases with emphasis on pathogenesis, epidemiology and treatment. Prerequisites: BIO-181 and BIO-181L. Co-Requisite: BIO-215L.

BIO-215L♦: General Microbiology Lab 1 credits

The General Microbiology laboratory supports further learning surrounding principles gained in the lecture. Students develop fundamental skills in microbiological laboratory techniques, microscopy methodologies, molecular methods of detection, and the isolation and identification of pathogenic microorganisms. Prerequisites: BIO-181 and BIO-181L. Co-Requisite: BIO-215.

BIO-220♦: Environmental Science 4 credits

This course examines the risks and the environmental impact of human behavior and population growth on natural resources. Emphasis is placed on a holistic approach to environmental science using hands-on exercises, environmental surveys, and class discussions to reinforce scientific principles.

BIO-220XV: Environmental Science 4 credits

This course examines the risks and the environmental impact of human behavior and population growth on natural resources. Emphasis is placed on a holistic approach to environmental science using hands-on exercises, environmental surveys, and class discussions to reinforce scientific principles.

BIO-250♦: Introduction to Life Sciences II 4 credits

This course introduces students to the relevance and impact of scientific endeavors/advances/processes on human populations, society, and the environment. Natural phenomena and relationships between scientific disciplines and technology provide foundational knowledge for students to critically analyze the interactions between humans and their world. Prerequisite: BIO-130.

BIO-253♦: Emergency Care for Acute Injuries 4 credits

This course includes the study of the proper techniques in caring for a patient by recognizing catastrophic and emergent conditions and treating appropriately. Students learn establishing and maintaining an airway, maintaining neutral spine alignment with an athlete wearing protective equipment, wound management, immobilization, transfer techniques including spine boarding, core body temperature, as well as caring for athletes with conditions such as asthma and diabetes. Students are prepared to complete Emergency Cardiac Care (ECC) certification upon completion of the course. Prerequisites: One of the following combinations: 1) BIO-155 and BIO-155L; or 2) BIO-201 and BIO-202.

BIO-308♦: Pathophysiology 3 credits

A study of manifestations of altered human physiology and disease. Systems theory is used to analyze the relationship between disease and physiology. Prerequisites: BIO-201 and BIO-202, or BIO-360.

BIO-316V♦: Pharmacology for Health Care Professionals 3 credits

The content of this course is designed to broaden the health care professional's knowledge of pharmacology. Topics include types and effects of drugs, including diagnostic imaging contrast media. The pharmacology, pharmacokinetics, and pharmacodynamics of drugs commonly used in ancillary health care are presented. Conscious sedation, adverse reactions, and patient care under sedation are also included.

BIO-317V^Δ♦: Science Communication & Research 3 credits

This writing intensive course focuses on the use of scientific research as a basis for understanding and improving clinical practice. Topics include differentiation between various forms of written communication, utilizing former research to support a position and/or develop new research proposals, organizing and writing research papers, and producing visual aids for oral presentations. Emphasis in this course is on the critical review of research studies and their applications to clinical practice. An overview of evidence-based practice is provided. Prerequisite: HLT-312.

BIO-319♦: Applied Nutrition 4 credits

This course provides a foundation of basic nutrition theory, with a focus on assessment, food components, exercise, nutrition, weight control, community programs, and resources. Application of these aspects is used to promote health and prevent illness.

BIO-319HN♦: Applied Nutrition 4 credits

This course provides a foundation of basic nutrition theory, with a focus on assessment, food components, exercise, nutrition, weight control, community programs, and resources. Application of these aspects is used to promote health and prevent illness.

BIO-320♦: Fundamentals of Ecology 3 credits

A study of plants and animals as individuals and in communities in relation to their physical and biological environment. Prerequisite: BIO-181. Co-Requisite: BIO-320L.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

BIO-320L♦: Fundamentals of Ecology-Lab 1 credits

A laboratory course designed to complement and support the principles being learned in Biology (BIO-320). Co-requisite: BIO-320.

BIO-322♦: Applied Pathophysiology 4 credits

This course is designed to bridge the gap between basic preclinical science courses and the clinical requirements of health care professionals. Critical thinking skills are enhanced with case studies that integrate nutritional and pharmacological concepts. Systematic studies focus on the etiology, pathogenesis, and clinical manifestations associated with various altered health states and diseases. Upon completion of this course, students should be able to correctly discuss a variety of disease states with health care professionals while addressing the following questions: How does a change in normal physiology cause the signs and symptoms of a given condition or disease? How do these physiological effects correlate to mechanisms of accurate diagnoses? Why is one treatment method chosen over another? How do different systems intricately interrelate to cause a clinical picture? This course does not substitute for BIO-483 or fulfill the Biology major requirement for pathophysiology. Prerequisites: BIO-201 and BIO-202.

BIO-322HN♦: Applied Pathophysiology 4 credits

This course is designed to bridge the gap between basic preclinical science courses and the clinical requirements of health care professionals. Critical thinking skills are enhanced with case studies that integrate nutritional and pharmacological concepts. Systematic studies focus on the etiology, pathogenesis, and clinical manifestations associated with various altered health states and diseases. Upon completion of this course, students should be able to correctly discuss a variety of disease states with health care professionals while addressing the following questions: How does a change in normal physiology cause the signs and symptoms of a given condition or disease? How do these physiological effects correlate to mechanisms of accurate diagnoses? Why is one treatment method chosen over another? How do different systems intricately interrelate to cause a clinical picture? This course does not substitute for BIO-483 or fulfill the Biology major requirement for pathophysiology. Prerequisites: BIO-201 and BIO-202.

BIO-330♦: Pathophysiology and Pharmacology 4 credits

This course introduces the etiology, pathogenesis, morphology, and clinical manifestations associated with various altered health states and diseases. Students also learn basic principles of pharmacotherapeutics and major classes of drugs used to treat disease. Emphasis is on clinically relevant terminology required to support accurate and effective communication in the health information management field. Prerequisites: BIO-192 and BIO-192L.

BIO-330HN†: Pathophysiology and Pharmacology 4 credits

This course introduces the etiology, pathogenesis, morphology, and clinical manifestations associated with various altered health states and diseases. Students also learn basic principles of pharmacotherapeutics and major classes of drugs used to treat disease. Emphasis is on clinically relevant terminology required to support accurate and effective communication in the health information management field. Prerequisites: BIO-192 and BIO-192L.

BIO-333♦: Molecular and Cellular Biology 4 credits

This course is a comprehensive study of the composition, structure, energetics, regulation, and growth of eukaryotic cells. Other topics include the essential processes of cells including the correlation of structure and function at the organelle and cellular levels. As well as, principles of molecular biology including recombinant DNA technology and other approaches and method used to investigate cell structure, development, chromosome organization, gene expression, and gene regulation. Prerequisites: BIO-181 and BIO-181L.

BIO-333HN♦: Molecular and Cellular Biology 4 credits

This course is a comprehensive study of the composition, structure, energetics, regulation, and growth of eukaryotic cells. Other topics include the essential processes of cells including the correlation of structure and function at the organelle and cellular levels. As well as, principles of molecular biology including recombinant DNA technology and other approaches and method used to investigate cell structure, development, chromosome organization, gene expression, and gene regulation. Prerequisites: BIO-181 and BIO-181L.

BIO-335: Medical Terminology 2 credits

This course covers the language of medicine that will be used as a foundation for understanding upper level undergraduate and graduate level courses to follow. It will include pronunciation, definition, usage and origins of medical terms. Medical terms presented will be used to identify signs, symptoms, diagnoses, and treatment options for selected pathologies. With these skills the student will be able to effectively interpret and communicate in a healthcare setting. Prerequisite: BIO-192, BIO-202 or BIO-211.

BIO-356♦: Health Promotion and Wellness and Protection 4 credits

This course includes the study of the general principles of health maintenance and promotion. Students learn the role of exercise including flexibility, strength training, and cardiovascular conditioning in maintaining a healthy lifestyle. Topics include nutrition and dietary requirements for health and weight management. Students administer testing procedures to obtain baseline data regarding a client/patient's level of general health and use this data to design a program specific to the performance and health goals of the client/patient. In addition, this course reviews the basics of evidence-based practice in athletic training. Prerequisites: BIO-155 and BIO-155L.

^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | ^Ω Non-Transferable

BIO-360♦: Medical Physiology 3 credits

This course focuses on the normal function of human cells, tissues, and organ systems. Emphasis is placed on the interconnections and biochemical functions between systems of the body and maintenance of homeostasis. Minor emphasis is placed on the dysfunctions and resulting pathologies. Prerequisites: BIO-181 and BIO-181L. Co-Requisite: BIO-360L.

BIO-360L♦: Medical Physiology - Lab 1 credits

This course involves the exploration of normal function of human cells, tissues, and organ systems through hands-on laboratory experimentation. Students develop a deeper understanding of the materials learned in BIO-360 using simulation software for human functions, systems, and pathologies. Prerequisites: BIO-181 and BIO-181L. Co-Requisite: BIO-360.

BIO-440♦: Body Fluid and DNA Analysis 4 credits

The content of this lecture/laboratory course is designed to equip learners with a strong background in molecular biology as it applies to serology and forensic DNA analysis. The identification of body fluids pertinent to forensic science, with a focus on saliva, blood, and semen, is introduced. Past and present theories, methods, and techniques used in the analysis of forensic DNA evidence are addressed. DNA profiling of various fluids and tissues of forensic interest is included. Laboratory work practicing various serology and STR analysis techniques provides hands-on experience. Key components of QC/QA are featured with reference to FBI, ASCLD, and ISO guidelines. Prerequisites: CHM-360, CHM-360L, and BIO-457.

BIO-440HN♦: Body Fluid and DNA Analysis 4 credits

The content of this lecture/laboratory course is designed to equip learners with a strong background in molecular biology as it applies to serology and forensic DNA analysis. The identification of body fluids pertinent to forensic science, with a focus on saliva, blood, and semen, is introduced. Past and present theories, methods, and techniques used in the analysis of forensic DNA evidence are addressed. DNA profiling of various fluids and tissues of forensic interest is included. Laboratory work practicing various serology and STR analysis techniques provides hands-on experience. Key components of QC/QA are featured with reference to FBI, ASCLD, and ISO guidelines. Prerequisite: BIO-457.

BIO-457^♦: Genetics 4 credits

This writing intensive course provides a comprehensive examination of the principles of heredity and variation, including Mendelian, molecular, and population genetics. Students explore topics such as gene mapping, DNA structure and replication, population genetics, and molecular change. Prerequisites: BIO-181 and BIO-181L.

BIO-457HN^f♦: Genetics 4 credits

This writing intensive course provides a comprehensive examination of the principles of heredity and variation, including Mendelian, molecular, and population genetics. Students explore topics such as gene mapping, DNA structure and replication, population genetics, and molecular change. Prerequisites: BIO-181 and BIO-181L.

BIO-458HN^♦: Honors Genetics 4 credits

This writing intensive course provides a comprehensive examination of the principles of heredity and variation, including Mendelian, molecular, and population genetics. Students explore topics such as gene mapping, DNA structure and replication, population genetics, and molecular change. Prerequisites: BIO-181 and BIO-181L.

BIO-460♦: Toxicology 4 credits

The content of this course is designed to equip learners with general principles of toxicology, forensic toxicology, and drug metabolism. Topics include chemistry and biological activities, as well as types and effects of drugs of forensic interest in biological material. Key components of QC/QA are featured with reference to FBI, ASCLD, and ISO guidelines. Prerequisites: CHM-365 and CHM-365L.

BIO-475♦: Advanced Genetics 3 credits

This course presents advanced topics in genetics and genomics, including prokaryotic and eukaryotic DNA replication and repair, regulation of transcription in prokaryotes and eukaryotes, reverse transcription, mutagenesis, carcinogenesis, cancer and personalized medicine, epigenetics, genomic analyses, genomic libraries and databases, phylogenetics and bioinformatics. Prerequisite: BIO-457, BIO-205; Co-Requisite: BIO-475L.

BIO-475HN♦: Advanced Genetics 3 credits

This course presents advanced topics in genetics and genomics, including prokaryotic and eukaryotic DNA replication and repair, regulation of transcription in prokaryotes and eukaryotes, reverse transcription, mutagenesis, carcinogenesis, cancer and personalized medicine, epigenetics, genomic analyses, genomic libraries and databases, phylogenetics and bioinformatics. Prerequisite: BIO-457, BIO-205; Co-Requisite: BIO-475L.

BIO-475L♦: Advanced Genetics Lab 1 credits

This hands-on laboratory course is designed to provide a project-based experience utilizing DNA, RNA, and molecular analysis techniques. These include isolation of DNA, action and laboratory use of restriction and modification enzymes, DNA amplification, DNA sequencing, mutagenesis and cloning, gene inactivation and complementation analysis, RT-PCR, DNA and RNA gel electrophoresis, Southern and Northern blot, and expression analyses (including Western blot and DNA microarrays). Co-requisite: BIO-475.

BIO-475LHN^f♦: Advanced Genetics Lab 1 credits

This hands-on laboratory course is designed to provide a project-based experience utilizing DNA, RNA, and molecular analysis techniques. These include isolation of DNA, action and laboratory use of restriction and modification enzymes, DNA amplification, DNA sequencing, mutagenesis and cloning, gene inactivation and complementation analysis, RT-PCR, DNA and RNA gel electrophoresis, Southern and Northern blot, and expression analyses (including Western blot and DNA microarrays). Co-requisite: BIO-475.

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | ^ Non-Transferable

BIO-483♦: Pathophysiology 4 credits

This course is designed to bridge the gap between basic preclinical science courses and the clinical requirements of health care/life science professionals. Systematic studies focus on the etiology, pathogenesis, morphology, and clinical manifestations associated with various altered health states and diseases.

Material is presented using clinically relevant terminology that increases accurate and effective communication through extensive vocabulary expansion. Upon completion of this course, students should be able to correctly discuss a variety of disease states with health care professionals and patients while addressing the following questions: What is actually happening at the physiological level that causes the signs and symptoms of a given condition or disease? How does a change in normal physiology cause the signs and symptoms of a given condition or disease? How do these physiological effects correlate to mechanisms of accurate diagnoses? Why is one treatment method chosen over another? How do different systems intricately interrelate to cause a clinical picture and complications?.

Prerequisites: One of the following combinations: BIO-201 and BIO-202; 2) BIO-210 and BIO-211; or 3) BIO-360.

BIO-483HN♦: Pathophysiology 4 credits

This course is designed to bridge the gap between basic preclinical science courses and the clinical requirements of health care/life science professionals. Systematic studies focus on the etiology, pathogenesis, morphology, and clinical manifestations associated with various altered health states and diseases.

Material is presented using clinically relevant terminology that increases accurate and effective communication through extensive vocabulary expansion. Upon completion of this course, students should be able to correctly discuss a variety of disease states with health care professionals and patients while addressing the following questions: What is actually happening at the physiological level that causes the signs and symptoms of a given condition or disease? How does a change in normal physiology cause the signs and symptoms of a given condition or disease? How do these physiological effects correlate to mechanisms of accurate diagnoses? Why is one treatment method chosen over another? How do different systems intricately interrelate to cause a clinical picture and complications?.

Prerequisites: One of the following combinations: 1) BIO-201 and BIO-202; 2) BIO-210 and BIO-211; or 3) BIO-360.

BIO-485HN♦: Honors Pathophysiology 4 credits

This course is designed to bridge the gap between basic preclinical science courses and the clinical requirements of health care/life science professionals. Systematic studies focus on the etiology, pathogenesis, morphology, and clinical manifestations associated with various altered health states and diseases.

Material is presented using clinically relevant terminology that increases accurate and effective communication through extensive vocabulary expansion. Upon completion of this course, students should be able to correctly discuss a variety of disease states with health care professionals and patients while addressing the following questions: What is actually happening at the physiological level that causes the signs and symptoms of a given condition or disease? How does a change in normal physiology cause the signs and symptoms of a given condition or disease? How do these physiological effects correlate to mechanisms of accurate diagnoses? Why is one treatment method chosen over another? How do different systems intricately interrelate to cause a clinical picture and complications?.

Prerequisites: One of the following combinations: BIO-201 and BIO-202; 2) BIO-210 and BIO-211; or 3) BIO-360.

BIO-500: Biostatistics 4 credits

This course is designed to provide students with knowledge and skills in application, evaluation, analysis, and interpretation of biostatistical data used to inform public health programs, policy, and practice. Students learn to complete statistical analysis using both qualitative and quantitative methodological approaches commonly used in public health practice.

BIO-505: A Comprehensive Overview of Phylogenetics and Ecology 4 credits

This course will give a broad overview of the classification of organisms, including prokaryotes, protists, fungi, plants, and animals. Students will discuss the importance of the various types of organisms in global and human ecology. This course will also address principles of ecology with regard to populations, communities, and global ecology. Ecological research will be analyzed, and conservation and restoration efforts will be evaluated through the use of case studies.

BIO-510: A Comprehensive Overview of Cell and Molecular Biology 4 credits

This course will cover an overview of properties of cellular organization using molecular, genetic, and cell biological approaches. This course will provide a comprehensive study of the composition, structure, energetics, regulation, and growth of eukaryotic cells. Students will also become competent in DNA structure and function, protein synthesis and gene regulation and will also learn the molecular tools for studying genes, gene cloning, and gene activity. From this fundamental perspective, students will be reviewing important scientific literature on the subject of cell biology and will examine the information through discussions, presentations, literature based essays and presentations. Prerequisite: Students should have completed an undergraduate course in cellular/molecular biology.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

BIO-515: Concepts of Human Physiology I 4 credits

This course presents a selection of complex physiological mechanisms which will be explored and analyzed to provide students with a comprehensive understanding of human physiology. Topics will be introduced through a system-based approach with the inclusion of application scenarios to enhance the understanding. Prerequisite: BIO-510.

BIO-520: Concepts of Human Physiology II 4 credits

This course continues the study of complex physiological mechanisms which will be explored and analyzed to provide students with a deeper understanding of human physiology. Topics will be introduced through a systems-based approach with the inclusion of application scenarios to enhance the understanding. Prerequisite: BIO-515.

BIO-525: Concepts of Medical Microbiology 4 credits

This course provides an introduction to the principles and applications of microbiology and a study of the general characteristics of microorganisms, their activities, and their relationship to humans. Students will be introduced to developing an understanding of microbial cell structure and function, microbial growth, bacterial genetics, characteristics of viruses, interaction of microbes and humans with reference to immune responses, related pathologies, and antimicrobial control medications. Prerequisite: BIO-505, BIO-510.

BIO-550: Epidemiology 4 credits

This course applies epidemiological approaches to explore patterns of disease and injury in the human population. Emphasis is placed on health indicators, concepts, principles, and methods of chronic and infectious disease epidemiology. Students learn to conduct their own statistical analysis of basic epidemiological measures used for evidence-based decision making using data and reports.

Business Intelligence (BIT)

BIT-200: Introduction to Computer Technology 4 credits

This course provides the foundation of core knowledge within the field of information technology. Topics include technology-centric organizations, the type and role of fundamental information technology systems, data management to include privacy and security, e-business and m-business, hardware, software, and computer networks.

BIT-200HN^Δ: Introduction to Computer Technology 4 credits

This course provides the foundation of core knowledge within the field of information technology. Topics include technology-centric organizations, the type and role of fundamental information technology systems, data management to include privacy and security, e-business and m-business, hardware, software, and computer networks.

BIT-200XV: Introduction to Computer Technology 4 credits

This course provides the foundation of core knowledge within the field of information technology. Topics include technology-centric organizations, the type and role of fundamental information technology systems, data management to include privacy and security, e-business and m-business, hardware, software, and computer networks.

BIT-205: Introduction to Computer Technology and Analytics 4 credits

This course introduces core components of computer, information systems, and analytics technology. Students examine how organizations use technologies to analyze business processes and data and learn fundamental skills for business analytics.

BIT-210: Object-Oriented Programming for Business 4 credits

This course provides an introduction to object-oriented programming using most current business application programming languages and tools. Students will design, create, run, and debug applications. The course emphasizes the development of correct, well-documented programs using object-oriented programming concepts. Students also learn to create GUI-based programs. Prerequisite: CST-110 or CST-111.

BIT-310: Information Systems Design and Development 4 credits

This course introduces key aspects of information systems development within the context of business information systems. Students focus on systems development with an emphasis on the system development life cycle, including requirements analysis and traceability, feasibility, and cost-benefit analysis. Systems development, deployment, and post-implementation processes are also addressed.

BIT-415: IT Project Management 4 credits

This course examines information technology project management. Topics include the reasons why IT projects fail, the business cost of IT failure, managing IT teams, outsourcing, virtual teams, scope definition, project scheduling, risk mitigation, and leading successful projects. Additional topics focus on using project management to build an analytics organization. Prerequisite: BIT-200, BIT-205, CST-110, or CST-111.

BIT-415HN^Δ: IT Project Management 4 credits

This course examines information technology project management. Topics include the reasons why IT projects fail, the business cost of IT failure, managing IT teams, outsourcing, virtual teams, scope definition, project scheduling, risk mitigation, and leading successful projects. Additional topics focus on using project management to build an analytics organization. Prerequisite: BIT-200 or CST-110 or CST-111.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

BIT-417^{▲♦}: IT Governance and Ethics 4 credits

This writing intensive course examines the role of governance and ethics within information technology. Topics include understanding and satisfying Sarbanes/Oxley, preparing for an information technology audit, complying with government regulations such as HIPAA, and understanding data-privacy issues. Students examine real-world case studies. Prerequisite: BIT-200, BIT-205, CST-110, or CST-111.

BIT-417HN^{▲♦}: IT Governance and Ethics 4 credits

This writing intensive course examines the role of governance and ethics within information technology. Topics include understanding and satisfying Sarbanes/Oxley, preparing for an information technology audit, complying with government regulations such as HIPAA, and understanding data-privacy issues. Students examine real-world case studies. Prerequisite: BIT-200, BIT-205, CST-110, or CST-111.

BIT-430: Introduction to Business Analytics 4 credits

This course examines basic business analytics concepts with specific emphasis on descriptive analytics. Students are introduced to techniques and selected industry tools relevant for describing data behavior. Prerequisites: BIT-200, BIT-205, or CST-111; and MAT-274 or BUS-352.

BIT-430HN[†]: Introduction to Business Analytics 4 credits

This course examines current business intelligence practices and tools. Topics include creating an intelligent data-driven company, the role of decision-management tools, information silo busting, and design techniques for information dashboards. This course also introduces the key aspects of conducting business analytics using Microsoft Excel's Advanced features. Students examine real-world case studies. Prerequisites: BIT-200 and BUS-352.

BIT-435[♦]: Advanced Business Analytics 4 credits

This course covers key concepts related to predictive and prescriptive analytics by combining information technologies and statistical techniques to extract meaning from organizational data. Students apply predictive and prescriptive analytics techniques in order to understand the business environment and guide business-related decisions. Use of selected industry tools to apply predictive and prescriptive analytics techniques is also addressed. Prerequisite: BIT-430.

BIT-435HN[♦]: Advanced Business Analytics 4 credits

This course examines key aspects of predictive analytics by combining both information technologies and modeling techniques to extract meaning from similar and/or dissimilar organizational data. The course covers the use of quantitative techniques to translate business data into business intelligence. The key focus of the course is how to leverage information technology to build predictive models for making tactical and strategic business decisions. Prerequisites: BIT-200, BIT-430, and BUS-352.

BIT-440: Web Analytics 4 credits

This course examines how to leverage web analytics to ascertain website effectiveness with a specific focus on how to track, capture, analyze, and decipher website traffic. Topics related to SEI (search engine optimization) are also covered. Prerequisites: BIT-200 and BIT-430.

BIT-445: Data Mining 4 credits

This course covers basic concepts and techniques related to data mining. A key goal of the course is evaluating data in order to make business-related decisions. Use of selected industry tools to perform data mining is also addressed. Prerequisite: BUS-352.

BIT-450: Current Topics in IT and Business Intelligence 4 credits

This course examines current IT and business intelligence topics in order to assist students in their development as IT professionals. Concepts are taught in the context of project management, database structures, programming, business analytics, and IT governance and ethics. Prerequisites: BIT-200, SYM-400, SYM-405, BIT-415, BIT-417, BIT-430, BIT-435, and senior status.

BIT-455[♦]: Current Topics in Business Analytics 4 credits

This course builds upon the techniques and tools presented in prior courses in the program and focuses on how analytics are applied in contemporary organizations. Students use critical thinking skills to frame analytics problems, build and apply appropriate analytics models, and communicate relevant findings. Prerequisites: BIT-415 and BIT-435.

BIT-460: Enterprise Systems Integration 4 credits

This course examines the process of integrating different systems and software applications by examining current and emerging trends, strategies, and techniques for effectively developing systems integration solutions. Prerequisites: BIT-310, BIT-415, and SYM-408.

BIT-470[▲]: Strategic Information Systems Management 4 credits

This writing intensive course emphasizes the centrality of business information systems in improving enterprise strategy to drive organizational success. Students learn how to help organizations achieve competitive advantage through the strategic aligning of information systems with organizational goals. There is particular emphasis on strategies for achieving organizational goals through the deployment of information technology-based solutions. Prerequisite: BIT-310.

BIT-470HN^{▲†}: Strategic Information Systems Management 4 credits

This writing intensive course emphasizes the centrality of business information systems in improving enterprise strategy to drive organizational success. Students learn how to help organizations achieve competitive advantage through the strategic aligning of information systems with organizational goals. There is particular emphasis on strategies for achieving organizational goals through the deployment of information technology-based solutions. Prerequisite: BIT-310.

[▲] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Biomedical Engineering (BME)

BME-356♦: Biomaterials 3 credits

This course introduces students to the guiding principles involved in biomaterials. Students will learn about the materials that are used to replace or come in contact with living systems. They also examine biocompatibility – the reaction of the human body to materials that are introduced. Additionally, a specific emphasis on the regulatory guidance of new biomaterials will be covered. Prerequisites: CHM-115, CHM-115L, and STG-330. Co-Requisite: BME-356L.

BME-356L♦: Biomaterials Lab 1 credits

This is the lab section of BME-356. Students engage in hands-on activities to experience how materials can be used to replace or come in contact with living systems. They also examine biocompatibility – the reaction of the human body to materials that are introduced. Additionally, students practice drafting regulatory-compliant documents. Prerequisites: CHM-115, CHM-115L, and STG-330. Co-Requisite: BME-356.

BME-360♦: Introduction to Biomechanics & Lab 4 credits

This course introduces students to a continuum approach to solid biomechanics. Engineering statics is reviewed. Generalized stress and strain relationships are mathematically derived and physically justified. For material behaviors that are linear, elastic, homogeneous and isotropic, universal solutions are developed and explored for axial loading of rods, pressurization of hollow cylinders and spheres, extension of rods and torsion of cylinders, bending of beams, and buckling of columns. Finally, the universal solutions are applied to and tested in biological systems ranging from the cellular to organ level. Prerequisites: BIO-181, BIO-181L, MAT-364, ESG-250, PHY-121 and PHY-121L.

BME-460♦: Biomedical Instrumentation and Devices & Lab 4 credits

This course introduces theory of measurement and analysis from biological systems. It explores the principles and use of transducers, data recording and analysis systems, and signal processing techniques. Students will develop and utilize instrumentation to measure or transmit physiological data using computer based data acquisition. Prerequisites: BIO-360, BIO-360L, ESG-202, ESG-202L, and MAT-364.

BME-465♦: Advanced Biomedical Instrumentation and Devices & Lab 4 credits

This course applies the knowledge and skills obtained from BME 460: Biomedical Instrumentation and Devices & Lab to measurements for specific organs – blood, cardiac, and respiratory. Clinical instrumentation, therapeutic and prosthetic devices, biotechnology equipment, and medical imaging systems are analyzed according to their design, manufacture and use. Finally, accessing the risk and safety associated with these devices and instrumentation is explored. Practicum/field experience hours: None. Fingerprint clearance not required. Prerequisite: BME-460.

BME-471: Biomedical Design Elements I 2 credits

This course provides an overview of designing a marketable medical device. Students will design a biomedical system, component, or process to meet desired needs within realistic constraints. This includes the design process from problem definition through concept design. FDA regulation, human factors, system safety consideration, and medical product liability will be covered. Prerequisite: STG-430.

BME-472♦: Biomedical Design Elements II 2 credits

This course is a continuation of Biomedical Design Elements I. It provides a comprehensive view of designing a marketable medical device. This includes the design process from prototype, and clinical testing for market readiness. Topics covered include FDA regulation, human factors, system safety consideration, and medical product liability. Prerequisite: BME-471.

Business (BUS)

BUS-232: Introduction to Sports Management 4 credits

This course is an overview of the business of sports, including career opportunities, as well as a study of the value of professional management to sports organizations.

BUS-232XV: Introduction to Sports Management 4 credits

This course is an overview of the business of sports, including career opportunities, as well as a study of the value of professional management to sports organizations.

BUS-301♦: Professional Success within the Fine Arts 4 credits

This course will prepare the College of Fine Arts and Production student for professional success in their chosen field. Students will research their industry, gaining critical knowledge and learning the business practices needed for post-graduation success.

BUS-317: Financial Decision Making 4 credits

This course is an exploration of the financial reports and tools used by managers to make decisions and analyze the performance of a business entity.

BUS-330: Business Process Design 4 credits

This course introduces intelligent business process management applications and the technical skills required to design and implement process modeling and user interfaces. Students apply critical thinking and problem solving in model development and efficient end-user displays. The course prepares students for the advanced topics of case design, data modeling, and business reporting.

^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | ^Ω Non-Transferable

BUS-340[♦]: Ethical and Legal Issues in Business 4 credits

This writing intensive course is a comprehensive study of the legal and ethical issues of concern to business, including those areas of the U.S. legal system that are most relevant to business, such as the law of torts, strict liability, intellectual property, and contract law. It explores the role of ethics and values in business decision making, and approaches these subjects from the perspective of the stakeholders as opposed to an economic interpretation of the firm and its responsibilities.

BUS-340HN^Δ: Ethical and Legal Issues in Business 4 credits

This writing intensive course is a comprehensive study of the legal and ethical issues of concern to business, including those areas of the U.S. legal system that are most relevant to business, such as the law of torts, strict liability, intellectual property, and contract law. It explores the role of ethics and values in business decision making, and approaches these subjects from the perspective of the stakeholders as opposed to an economic interpretation of the firm and its responsibilities.

BUS-352[♦]: Business Statistics 4 credits

This course provides an introduction to the practical application of descriptive and inferential statistics in business. Topics include probability, probability distributions, the central limit theorem, confidence intervals, hypothesis testing, correlation, and regression. Prerequisite: MAT-134, MAT-144 or MAT-154.

BUS-364[♦]: Sports Law 4 credits

This course is a presentation of the basic legal system, its terminology, and principles as applied to professional and amateur sports. Emphasis is on identifying and analyzing legal issues, the ramifications of those issues, and the means of limiting the liability of sports organizations. Prerequisite: BUS-340 or BUS-316.

BUS-372: Sports Event Planning 4 credits

This course provides an introduction to event planning for athletic, recreational, entertainment, and special events. An emphasis is placed on budgeting, site selection, sponsorship, and facility management. Prerequisites: BUS-232 and MKT-315.

BUS-390[♦]: Global Business 4 credits

This course surveys the global business environment with an emphasis on international markets and the global supply chain that impact all organizations and consumers. Students learn about basic international trade and currency issues and strategies to enter global markets successfully. Students focus on communication tools and negotiation tactics to enhance their cultural competence and business acumen.

BUS-435: Methods of Teaching Business in Middle and Secondary Schools 4 credits

This course is designed to help middle and secondary school teachers develop effective instructional strategies for teaching in the discipline of business. Emphasis is given to teaching methodologies that encourage project-based learning, problem solving, learner engagement, and effective assessment practices. Practicum/field experience hours: 10. Fingerprint clearance required.

BUS-470^Δ: Applied Business Project 4 credits

In this writing-intensive course, students investigate challenges facing contemporary organizations and recommend solutions based on research and critical analysis. Students integrate major concepts learned throughout their program to formulate problem statements, employ quantitative and qualitative data collection methods, and communicate recommendations that satisfy the needs of diverse stakeholders.

BUS-485^Δ: Strategic Management 4 credits

This writing-intensive course serves as the capstone experience in business and management that includes the gradual development of a comprehensive and integrative business plan. This course is designed to assist students in their development as managers, servant leaders, and successful strategic thinkers. Management, marketing, accounting, finance, economics, global perspectives, law, and political issues are covered during this course. Prerequisites: MGT-420 or MGT-422HN; FIN-210 or FIN-350; and MKT-245 or MKT-315.

BUS-485HN^Δ: Strategic Management 4 credits

This writing intensive course serves as the capstone experience in business and management that includes the gradual development of a comprehensive and integrative business plan. This course is designed to assist students in their development as managers, servant leaders, and successful strategic thinkers. Management, marketing, accounting, finance, economics, global perspectives, law, and political issues are covered during this course. It is a writing intensive course that will help students develop competencies such as critical thinking, effective communication, leadership, and global awareness. Prerequisites: FIN-350, MGT-240 or MGT-420, MKT-245, and senior status.

BUS-499: Independent Study 1 credits

This involves research, seminars, or readings on a special topic selected by the student and the faculty advisor as appropriate. This course may be taken for one, two, three, or four credits, depending on the amount of time and work involved, and may be repeated for up to four credits total per subject area unless specified otherwise in requirements for a major.

BUS-600: Financial Fundamentals for Managers 4 credits

This course introduces basic accounting and finance principles relevant for managers. Students become familiar with basic financial statements, cash flow concepts, cost behavior, budgeting, and analytical tools.

BUS-623: Business Law and Ethics for Accounting 4 credits

This course gives students a robust legal and ethical framework that is crucial for accountants and managers under Sarbanes-Oxley. Using case studies that incorporate the principles of business law, the AICPA code, and other systems of ethics, students learn how a commitment to ethics can enable accounting professionals to meet their ethical obligations to all stakeholders.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

BUS-630: Building Innovative Organizations 4 credits

This course introduces the challenge of balancing efficiency with the ability to innovate successfully. It examines steps to achieving successful innovation, including understanding what customers really want and having the right structure, processes, and resources to support innovation.

BUS-635: Sports Business Revenue Generation 4 credits

This course discusses the principles and strategies associated with generating revenue in the sports business industry.

BUS-655: Sports Business Analytics 4 credits

This course emphasizes sports marketing research with the focus on teaching students how to obtain the data, insights, and intelligence needed in every area of sports marketing, sports media, and sponsorship in order to most effectively maximize value for brands, rights holders, agencies, and media.

BUS-660: Quantitative Methods 4 credits

This course is a study in the quantitative tools and techniques used to model business functions and applications. Emphasis is placed on how to set up models, and how to interpret and apply their results. Prerequisite: SYM-506.

Christian Counseling (CCN)

CCN-601: Biblical Foundations for Counselors: The Story of God 3 credits

This course is a narrative approach to the theology of God, humanity, and salvation. Students learn to apply the story of the Bible to the life and practice of the Christian counselor.

CCN-650: Spiritual Formation: Becoming a Healthy Practitioner 3 credits

This course provides an introduction to spiritual formation with attention to classical spiritual disciplines and stages of growth. This course includes an exploration into personal spiritual health and character development with implications for counseling practice. Prerequisite: CCN-601.

CCN-655: Biblical Concepts-Healthy Relationships: Forgiveness & Healthy Spirituality 3 credits

This course explores relational health in connection with topics including self-assessment, forgiveness, reconciliation with God and others, and the pursuit of spiritual health. Personal practice and implementation in professional counseling are emphasized. Prerequisite: CCN-650.

CCN-675: Integration of Scripture with Counseling Theory 3 credits

In this course, students explore the integration of the Christian worldview into counseling theory and practice. Emphasis is placed on the nature and purpose of human beings from a biblical perspective as well as ethical issues pertinent to the Christian counselor, while critically evaluating contemporary secular theories and practices. Prerequisite: CCN-655.

Christian Leadership (CHL)

CHL-465[♦]: Christian Leadership in the 21st Century 4 credits

This course is an examination of Christian leadership with an emphasis on ethics, community, the environment, and the intricacies of cross-cultural leadership. The course helps students identify administrative skills necessary for leading a successful organization, examine how their Christian values influence their actions and decisions as they live out their faith in their vocations and positions, develop a framework for practicing global citizenship, and initiate an informed dialogue concerning the nature of leadership in other cultures and in diverse situations. Prerequisites: BIB-351, BIB-354, MIN-350, and HTH-469.

CHL-510: Biblical Foundations of Christian Leadership 4 credits

This course provides students with a biblical foundation from the Old and New Testaments on Christian Leadership. In studying the Scriptures in their historical, cultural, and linguistic contexts, students gain an appreciation of principles of leadership and develop a theology of leadership centered on the narrative and teaching of Scripture. Issues of call, formation, character, purpose, service, and discipleship are addressed. This course requires supervised ministry hours. Practicum/field experience hours: 45.

CHL-520: Theories of Leadership 4 credits

This course is a survey of current models, methods, and skills of leadership, and their application in a variety of settings.

CHL-630: Best Practices in Christian Leadership 4 credits

This course provides students with the opportunity to engage significant insights of contemporary leadership practice in order to integrate these insights into an effective and informed and integrated philosophy of Christian leadership. In this course, the student investigates some of the most helpful principles and people regarding the practice and the concept of leadership and organizational leadership. This course requires supervised ministry hours. Practicum/field experience hours: 45. Prerequisite: CHL-510.

CHL-650: Leading Through Crisis, Conflict and Change 4 credits

This course is an investigation into the dynamics of crisis, conflict, and change, and how to address these realities in Christian leadership. This course requires supervised ministry hours. Practicum/field experience hours: 45. Prerequisite: CHL-520 or CHL-630.

Chemistry (CHM)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CHM-101♦: Introduction to General, Organic, and Biochemistry **3 credits**

An introduction to the principles of chemistry; designed for students without a strong background in science. Topics covered include a survey of the chemical and physical properties of elements and compounds, chemical reactions, chemical energetics, acids and bases, and chemical bonding. An introduction to organic and biochemistry emphasizes the relationship between molecular structure and function. Co-requisite: CHM-101L.

CHM-101L♦: Introduction to General, Organic, and Biochemistry Lab **1 credits**

This lab course is designed to compliment and support the principles being addressed in CHM-101. Students learn basic lab techniques related to general and organic chemistry, building upon and strengthening foundational knowledge such as stoichiometry and reaction types. Additionally, some topics are addressed from a biochemical standpoint to highlight application to daily living. Co-requisite: CHM-101.

CHM-110♦: General and Organic Chemistry **3 credits**

This course provides an introduction to the principles of chemistry, including chemical and physical properties of elements and compounds and chemical reactions. As an introduction to organic chemistry, this course also emphasizes molecular structure as it relates to function. Co-Requisite: CHM-110L.

CHM-110L♦: General and Organic Chemistry Lab **1 credits**

The laboratory section of General and Organic Chemistry reinforces and expands learning of principles introduced in the lecture course. Co-Requisite: CHM-110.

CHM-111♦: General and Organic Chemistry II **3 credits**

An introduction to the principles of chemistry, including chemical and physical properties of elements and compounds and chemical reactions. As an introduction to organic chemistry, this course also emphasizes molecular structure. Prerequisite: CHM-110. Co-Requisite: CHM-111L.

CHM-111L♦: General and Organic Chemistry II Lab **1 credits**

The laboratory section of General and Organic Chemistry reinforces and expands learning of principles introduced in the lecture course. Prerequisite: CHM-110L. Co-Requisite: CHM-111.

CHM-113♦: General Chemistry I-Lecture **3 credits**

This is the first course of a two-semester introduction to chemistry intended for undergraduates pursuing careers in the health professions and others desiring a firm foundation in chemistry. The course assumes no prior knowledge of chemistry and begins with basic concepts. Topics include an introduction to the scientific method, dimensional analysis, atomic structure, nomenclature, stoichiometry and chemical reactions, the gas laws, thermodynamics, chemical bonding, and properties of solutions. Co-Requisite: CHM-113L.

CHM-113L♦: General Chemistry I - Lab **1 credits**

The laboratory section of CHM-113 reinforces and expands learning of principles introduced in the lecture course. Experiments include determination of density, classification of chemical reactions, the gas laws, determination of enthalpy change using calorimetry, and determination of empirical formula. Co-Requisite: CHM-113.

CHM-115♦: General Chemistry II-Lecture **3 credits**

This is the second course of a two-semester introduction to chemistry intended for undergraduates pursuing careers in the health professions and others desiring a firm foundation in chemistry. Upon successful completion of this course, students demonstrate knowledge and/or skill in solving problems involving the principles of chemical kinetics, chemical equilibrium, and thermodynamics; understanding chemical reactions using kinetics, equilibrium, and thermodynamics; comparing and contrasting the principal theories of acids and bases; solving equilibrium involving acids, bases, and buffers; describing solubility equilibrium; describing terms associated with electrochemistry and solving problems associated with electrochemistry; and describing fundamentals and applications of nuclear chemistry and organic chemistry. Prerequisites: CHM-113 and MAT-154 or higher. Co-Requisite: CHM-115L.

CHM-115L♦: General Chemistry II - Lab **1 credits**

The laboratory section of CHM-115 reinforces and expands learning of principles introduced in the lecture course. Experiments include determination of rate law, examples of Le Châtelier's principle, the use of pH indicators, buffer preparation, experimental determination of thermodynamic quantities, the use of electrochemical cells, and qualitative and quantitative analysis. Prerequisites: CHM-113L and MAT-154 or higher. Co-Requisite: CHM-115.

CHM-231♦: Organic Chemistry I **3 credits**

This course is the first of two organic chemistry courses. The first half of this course develops the vocabulary and concepts of chemical bonding, chemical structure, acid-base principles, and nomenclature needed to understand properties and reactions of organic compounds. The second half of this course discusses chemical reactions, including radical reactions, substitution and elimination reactions, and synthesis and reactions of alkenes. Students learn how to predict reaction products and draw reaction mechanisms. Organic synthesis and structural determination are also covered. Instruction includes lecture and in-class problem solving. Prerequisites: CHM-115 and CHM-115L. Co-requisite: CHM-231L.

CHM-231L♦: Organic Chemistry I Lab **1 credits**

The laboratory section of CHM-231 reinforces principles learned in the lecture course through various techniques that organic chemists use to synthesize compounds. Students use these techniques throughout the semester. These techniques include determination of melting point, determination of solubility, thin layer chromatography, recrystallization, and distillation. Structural determination using theories discussed in CHM-231 is applied to unknown compounds. Prerequisites: CHM-115 and CHM-115L. Co-requisite: CHM-231.

^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | ^ Non-Transferable

CHM-232♦: Organic Chemistry II 3 credits

This course is the second of two organic chemistry courses. The course is organized by common organic functional groups, including alkynes, alcohols, ether, aromatic compounds, ketones and aldehydes, amines, carboxylic acid, and carboxylic acid derivatives. The reactions and properties of each functional group are discussed. Students learn how to predict reaction products, draw reaction mechanisms, and predict physical properties. Instruction includes lecture and in-class problem solving. Prerequisites: CHM-231 and CHM-231L. Co-Requisite: CHM-232L.

CHM-232L♦: Organic Chemistry II Lab 1 credits

The laboratory section of CHM-232 supports and extends principles learned in the lecture course. Students carry out various organic syntheses using techniques taught in CHM-231. The experiments include preparation of an alkene from an alcohol, a Grignard reaction, preparation of cinnamaldehyde, nitration of methyl benzoate, synthesis of N-Methyl Prozac, an Aldol reaction, Benzimidazole synthesis, and a Diazonium coupling reaction. Prerequisites: CHM-231 and CHM-231L. Co-requisite: CHM-232.

CHM-235♦: Survey of Organic Chemistry 3 credits

This course is a survey of basic structure and reactivity of carbon-containing structures with examples in biological and industrial processes. Students will learn how to name organic compounds, draw and understand their structures in two and three dimensions, and learn how structure and reactivity are interrelated. Students will be able to describe reactivity in terms of addition, elimination, and substitution. Biological compounds discussed in the course include the structure and reactivity of carbohydrates and polysaccharides followed by amino acids and proteins. The final topic for the course is a discussion about industrially important polymers. Prerequisites: MAT-250 or MAT-261, CHM-115, and CHM-115L. Co-Requisite: CHM-235L.

CHM-235L♦: Survey of Organic Chemistry Lab 1 credits

This is the lab section of CHM-235. It supports the lecture with hands-on activities. Lab experiments expand students' understanding of organic compounds, drawing and understanding their structures in two and three dimensions, and learning how structure and reactivity are interrelated. Students will be able to describe reactivity in terms of addition, elimination, and substitution. Biological compounds discussed in the course include the structure and reactivity of carbohydrates and polysaccharides followed by amino acids and proteins. The final topic for the course is a discussion about industrially important polymers. Prerequisites: MAT-250 or MAT-261, CHM-115, and CHM-115L. Co-Requisite: CHM-235.

CHM-315♦: Analytical Chemistry 3 credits

This course introduces advanced principles and theory of quantitative analysis, including stoichiometry, equilibria, photometric methods, electrochemistry, separation processes, statistical data analysis, and applications to advanced topics in analytical chemistry. Sampling strategies and sample preparation for analysis will also be discussed. Prerequisite: CHM-235, CHM-235L or CHM-231, CHM-231L. Co-Requisite: CHM-315L.

CHM-315HN[†]♦: Analytical Chemistry 3 credits

This course introduces advanced principles and theory of quantitative analysis, including stoichiometry, equilibria, photometric methods, electrochemistry, separation processes, statistical data analysis, and applications to advanced topics in analytical chemistry. Sampling strategies and sample preparation for analysis will also be discussed. Prerequisite: CHM-235, CHM-235L or CHM-231, CHM-231L. Co-Requisite: CHM-315L.

CHM-315L♦: Analytical Chemistry Lab 1 credits

This course will discuss the fundamental principles of analytical chemistry. Topics will include sampling strategies, sample preparations and analysis, instrument operation, data collection and statistical analysis, and presentation of results. Prerequisites: CHM-235 and CHM-235L or CHM-231 and CHM-231L. Co-Requisite: CHM-315.

CHM-315LHN[†]♦: Analytical Chemistry Lab 1 credits

This course will discuss the fundamental principles of analytical chemistry. Topics will include sampling strategies, sample preparations and analysis, instrument operation, data collection and statistical analysis, and presentation of results. Prerequisites: CHM-235 and CHM-235L or CHM-231 and CHM-231L. Co-Requisite: CHM-315.

CHM-333♦: Structure Determination in Organic Chemistry 4 credits

This course discusses the theory and application of spectroscopic methods/techniques useful for the determination of the molecular structures of organic molecules. Topics covered include chemical tests for functional group identification and modern instrumental techniques used for structure determination: ultraviolet/visible, infrared, and nuclear magnetic resonance spectroscopy and mass spectrometry. The major emphasis of this course is on structure determination by way of interpreting the data (generally in the form of a spectrum or spectra) that each method provides. Prerequisite: CHM-232 & CHM-232L.

CHM-350: Fundamental Biochemistry 3 credits

This course provides an introduction to the properties, structure, function, thermodynamics, and basic genetics of macromolecules, including proteins, enzymes, nucleic acids, carbohydrates, and lipids. The course also covers how living systems synthesize and utilize these macromolecules and how that relates to energy production and use. Prerequisites: CHM-111 and CHM-111L. Co-Requisite: CHM-350L.

CHM-350HN[†]: Fundamental Biochemistry 3 credits

This course provides an introduction to the properties, structure, function, thermodynamics, and basic genetics of macromolecules, including proteins, enzymes, nucleic acids, carbohydrates, and lipids. The course also covers how living systems synthesize and utilize these macromolecules and how that relates to energy production and use. Prerequisites: CHM-111 and CHM-111L. Co-Requisite: CHM-350L.

[†] Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CHM-350L: Fundamental Biochemistry Lab 1 credits

This laboratory course introduces techniques for analyzing macromolecules including carbohydrates, lipids, proteins, and nucleic acids. It also explores basic biochemical pathways utilized by living systems that enable cellular function. Prerequisites: CHM-111 and CHM-111L. Co-Requisite: CHM-350.

CHM-350LHN[†]: Fundamental Biochemistry Lab 1 credits

This laboratory course introduces techniques for analyzing macromolecules including carbohydrates, lipids, proteins, and nucleic acids. It also explores basic biochemical pathways utilized by living systems that enable cellular function. Prerequisites: CHM-111 and CHM-111L. Co-Requisite: CHM-350.

CHM-360[♦]: Principles of Biochemistry 3 credits

The course objective is to survey basic biochemical principles, including the composition, structure, and function of proteins, nucleic acids, lipids, and carbohydrates. Important biochemical principles include structure-function correlation, chemical reactivity, kinetics and equilibrium, thermodynamics, membrane structure and function, and metabolic energy pathways. The application of biochemical concepts in the medical field is emphasized. Prerequisite: BIO-181, BIO-181L, CHM-231, CHM-231L. Co-Requisite: CHM-360L.

CHM-360HN[♦]: Principles of Biochemistry 3 credits

The course objective is to survey basic biochemical principles, including the composition, structure, and function of proteins, nucleic acids, lipids, and carbohydrates. Important biochemical principles include structure-function correlation, chemical reactivity, kinetics and equilibrium, thermodynamics, membrane structure and function, and metabolic energy pathways. The application of biochemical concepts in the medical field is emphasized. Prerequisite: BIO-181, BIO-181L, CHM-231, CHM-231L. Co-Requisite: CHM-360L.

CHM-360L[♦]: Principles of Biochemistry - Lab 1 credits

This laboratory course covers modern biochemical laboratory techniques and their theoretical foundations. Topics include methods for protein, nucleic acid, and lipid isolation and characterization; enzyme assays; chromatography; electrophoresis; and representing and manipulating proteins and nucleic acids. Experiments are designed for hands-on experimentation and students acquire practical techniques currently used in biochemistry laboratories. Prerequisite: BIO-181, BIO-181L, CHM-231, CHM-231L. Co-Requisite: CHM-360.

CHM-360LHN^{†♦}: Principles of Biochemistry - Lab 1 credits

This laboratory course covers modern biochemical laboratory techniques and their theoretical foundations. Topics include methods for protein, nucleic acid, and lipid isolation and characterization; enzyme assays; chromatography; electrophoresis; and representing and manipulating proteins and nucleic acids. Experiments are designed for hands-on experimentation and students acquire practical techniques currently used in biochemistry laboratories. Prerequisites: BIO-181 and BIO-181L, and one of the following combinations: 1) CHM-331 and CHM-331L or 2) CHM-231 and CHM-231L. Co-requisite: CHM-360.

CHM-365[♦]: Instrumental Analysis 3 credits

This course introduces students to the quantitative, qualitative, and instrumental analysis of various sample types. Methods for selecting proper techniques to answer various questions are discussed. Analytical methods for the qualitative and quantitative analyses of sample by gas chromatography, mass spectroscopy, infrared spectroscopy, fluorescence spectroscopy, capillary and gel electrophoresis, and ultraviolet and visible spectroscopy are also covered. Other techniques, such as high-pressure liquid chromatography and thin layer chromatography, are discussed as well. Prerequisites: 1) CHM-231 and CHM-231L, or 2) CHM-235 and CHM-235L. Co-Requisite: CHM-365L.

CHM-365HN^{†♦}: Instrumental Analysis 3 credits

This course introduces students to the quantitative, qualitative, and instrumental analysis of various sample types. Methods for selecting proper techniques to answer various questions are discussed. Analytical methods for the qualitative and quantitative analyses of sample by gas chromatography, mass spectroscopy, infrared spectroscopy, fluorescence spectroscopy, capillary and gel electrophoresis, and ultraviolet and visible spectroscopy are also covered. Other techniques, such as high-pressure liquid chromatography and thin layer chromatography, are discussed as well. Prerequisites: 1) CHM-231 and CHM-231L, or 2) CHM-235 and CHM-235L. Co-Requisite: CHM-365L.

CHM-365L[♦]: Instrumental Analysis Lab 1 credits

The laboratory section of CHM-365 reinforces and expands learning of principles introduced in the lecture course. This course allows students to apply quantitative, qualitative, and instrumental analysis of various sample types. Focus is on the validity of results. Analytical methods for the qualitative and quantitative analyses of sample by gas chromatography, mass spectroscopy, infrared spectroscopy, fluorescence spectroscopy, capillary and gel are also covered. Prerequisites: 1) CHM-231 and CHM-231L, or 2) CHM-235 and CHM-235L. Co-Requisite: CHM-365.

[†] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CHM-365LHN[♦]: Instrumental Analysis Lab 1 credits

The laboratory section of CHM-365 reinforces and expands learning of principles introduced in the lecture course. This course allows students to apply quantitative, qualitative, and instrumental analysis of various sample types. Focus is on the validity of results. Analytical methods for the qualitative and quantitative analyses of sample by gas chromatography, mass spectroscopy, infrared spectroscopy, fluorescence spectroscopy, capillary and gel are also covered. Prerequisites: 1) CHM-231 and CHM-231L, or 2) CHM-235 and CHM-235L. Co-Requisite: CHM-365.

CHM-420^Δ: Environmental Chemistry 3 credits

This writing intensive course focuses on the fundamental chemical principles involved in environmental phenomena and how they are influenced by human actions. Prerequisite: CHM-115.

CHM-441[♦]: Physical Chemistry I 3 credits

A study of the physical and chemical behavior of substances at the macroscopic and molecular levels. Topics include behavior of single substances and mixtures, thermodynamics, chemical reactions, and equilibria. Prerequisites: CHM-115, CHM-115L, and MAT-262. Co-Requisite: CHM-441L.

CHM-441L[♦]: Physical Chemistry I Lab 1 credits

A laboratory course designed to complement and support the principles being learned in CHM-441 lecture. Prerequisites: CHM-115, CHM-115L, and MAT-262. Co-Requisite: CHM-441.

CHM-444[♦]: Physical Chemistry II 3 credits

This course is a study of the physical and chemical behavior of substances at the molecular level. Topics include quantum chemistry, molecular structure and spectra, molecular reaction dynamics, and statistical mechanics. Prerequisites: CHM-441, PHY-121 and PHY-121L. Co-Requisite: CHM-444L.

CHM-444L[♦]: Physical Chemistry II Lab 1 credits

This is a laboratory course designed to complement and support the principles being learned in CHM-444. Prerequisites: CHM-441, PHY-121 and PHY-121L. Co-Requisite: CHM-444.

CHM-448[♦]: Inorganic Chemistry 3 credits

The objective of this course is to provide basic principles and applications of inorganic chemistry. Students will learn about modern atomic structure, structure and bonding in molecules and simple solids, transition metals and coordination chemistry, molecular symmetry, descriptive chemistry of select elements, chemistry of materials, and catalysis. Prerequisites: CHM-444 and CHM-444L. Co-Requisite: CHM-448L.

CHM-448L[♦]: Inorganic Chemistry Lab 1 credits

The objective of this course is to learn about a variety of methods and techniques in the synthesis, isolation, characterization, and handling of inorganic and organometallic compounds. Students will also learn about proper interpretation of experimental data, and dissemination of experimental results through presentation and writing technical reports. Prerequisites: CHM-444 and CHM-444L. Co-Requisite: CHM-448.

CHM-451[♦]: Pharmacology I 4 credits

This course presents the foundational concepts of pharmacology emphasizing basic mechanisms of drug action. Pharmacodynamics and pharmacokinetics principles and theories are presented. The course details the development of the current understanding of receptor signal transduction in mammalian systems. The course introduces the molecular biochemistry of receptor structure; mass action considerations governing ligand-receptor binding interactions; molecular pharmacology associated with signal transduction; and specific considerations of receptors as pharmaceutical targets. Following this introduction, a systematic study of the effects of drugs on representative organ systems and disease processes, the mechanisms by which drugs produce their therapeutic and toxic effects, and the factors influencing their absorption, distribution, and biological actions. Prerequisites: CHM-232 and CHM-232L, CHM-360, and CHM-360L. BIO-205 and BIO-205L, or BIO-215 and BIO-215L.

CHM-451HN[♦]: Pharmacology I 4 credits

This course presents the foundational concepts of pharmacology emphasizing basic mechanisms of drug action. Pharmacodynamics and pharmacokinetics principles and theories are presented. The course details the development of the current understanding of receptor signal transduction in mammalian systems. The course introduces the molecular biochemistry of receptor structure; mass action considerations governing ligand-receptor binding interactions; molecular pharmacology associated with signal transduction; and specific considerations of receptors as pharmaceutical targets. Following this introduction, a systematic study of the effects of drugs on representative organ systems and disease processes, the mechanisms by which drugs produce their therapeutic and toxic effects, and the factors influencing their absorption, distribution, and biological actions. Prerequisites: CHM-232 and CHM-232L, CHM-360, and CHM-360L. BIO-205 and BIO-205L, or BIO-215 and BIO-215L.

CHM-452[♦]: Pharmacology II 4 credits

This course is a continuation of Pharmacology I. Concepts and principles learned in the previous course are applied to additional organ systems and disease processes. Topics include cardiovascular drugs, chemotherapeutic drugs, endocrine drugs, and drugs of abuse. Prerequisite: CHM-451.

CHM-460[♦]: Advanced Biochemistry 3 credits

This course presents advanced topics in biochemistry, including mechanisms of metabolic and environmental information transfer, cellular signal transduction mechanisms, metabolic pathway interrelationships and regulation, carbohydrate, lipid and nitrogen metabolism, and the cell cycle and regulation. Prerequisites: CHM-360 and CHM-360L. Co-Requisite: CHM-460L.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CHM-460HN[♦]: Advanced Biochemistry 3 credits

This course presents advanced topics in biochemistry, including mechanisms of metabolic and environmental information transfer, cellular signal transduction mechanisms, metabolic pathway interrelationships and regulation, carbohydrate, lipid and nitrogen metabolism, and the cell cycle and regulation.

Prerequisites: CHM-360 and CHM-360L. Co-Requisite: CHM-460L.

CHM-460L[♦]: Advanced Biochemistry Lab 1 credits

This hands-on laboratory course is designed to provide a project-based experience utilizing modern biochemical techniques. This course will reinforce proper experimental design and control and will provide students with experience with several biochemical techniques, including DNA, RNA, and protein extraction from tissue and its analysis. This course will reinforce troubleshooting, confounds to analysis, and application of various techniques to reach a target goal. Co-requisite: CHM-460.

CHM-460LHN[♦]: Advanced Biochemistry Lab 1 credits

This hands-on laboratory course is designed to provide a project-based experience utilizing modern biochemical techniques. This course will reinforce proper experimental design and control and will provide students with experience with several biochemical techniques, including DNA, RNA, and protein extraction from tissue and its analysis. This course will reinforce troubleshooting, confounds to analysis, and application of various techniques to reach a target goal. Co-requisite: CHM-460.

CHM-505: Concepts of Medicinal Chemistry 4 credits

This focus of the course is the fundamentals of medicinal chemistry. Medicinal chemistry is an organic-chemistry-based discipline that interfaces strongly with the biological and pharmaceutical sciences. The field of medicinal chemistry includes the discovery and preparation of biologically active compounds; the study of their metabolism; the mechanism of action at the molecular level; and the construction of structure-activity relationships. This course includes the process of drug design, the structure and function of macromolecular drug “targets” (receptors, enzymes, nucleic acids), as well as the mechanisms by which drugs interact with their targets. Also, the complexity of human physiology and its effects which on the physical and chemical properties of a drug candidate can influence its absorption, distribution, and metabolism in a human patients will be discussed. Prerequisites: Students should have completed a year of organic chemistry and a course in biochemistry.

CHM-510: Concepts of Physical Chemistry 4 credits

The objective of this course is to provide a foundational knowledge on basic principles and applications of physical chemistry. The following topics will be covered: chemical kinetics, chemical equilibrium, and thermodynamics. Additional topics will include applications of physical chemistry principles towards chemical and biological systems including enzymatic reactions; time-dependent chemical and nuclear reactions; electrochemistry; and equilibria related to acids, bases, buffers, and solubility. Prerequisite: Students should have completed a year of general chemistry.

CHM-515: Concepts of Inorganic Chemistry 4 credits

The objective of this course is to provide a foundational knowledge on basic principles and applications of inorganic chemistry. The following topics will be covered: modern atomic structure, nomenclature of inorganic compounds, bonding theory, magnetism, periodic trends, and chemical reactivity. Additional topics include fundamentals of organometallic chemistry and transitional element chemistry and their application towards material properties, catalysis, and bioinorganic chemistry.

Prerequisite: Students should have completed a year of general chemistry.

CHM-520: Concepts of Analytical Chemistry 4 credits

The objective of this course is to provide basic and advanced theories, techniques, and principles of qualitative and quantitative analysis. Additional topics may include application of concepts of analytical chemistry to the fields of environmental science, forensic science, and medicine. Students should have a prior understanding of basic quantitative statistics. Prerequisite: CHM-505, CHM-510, CHM-515.

CHM-525: Current Topics in Chemistry 4 credits

This course surveys the broad areas of contemporary chemistry research and illustrates the application of chemistry principles. The topics will be determined by current events, technology, faculty and student interest.

CHM-530: Concepts of Biochemistry 4 credits

The objective of this course is to survey basic biochemical principles, including the composition, structure, and function of proteins, nucleic acids, lipids, and carbohydrates. Important biochemical principles, including structure-function correlation, kinetics and equilibrium, thermodynamics, membrane structure and function, and metabolic energy pathways, will illustrate the key concepts of biology and chemistry.

Counseling (CNL)

CNL-500^Ω: Theories and Models of Counseling 3 credits

This course provides a comprehensive survey of the major counseling theories and principles. Coursework includes the following theories: psychoanalytic, Adlerian, existential psychotherapy, behavioral, cognitive behavioral, person-centered, reality therapy/choice theory, and rational emotive behavioral therapy (REBT).

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CNL-501: Substance Use Disorders and Addictions 3 credits

This course provides a broad understanding of the stages, processes, and effects of substance use disorders, biological, social, and psychological dynamics of substance use disorders, and the professional's role in prevention, intervention, and aftercare, including recovery and relapse prevention. This course explores theories and models of treatment of addiction disorders to include understanding different types of addiction disorders, effective skills, drug classification, and assessment. It also continues building foundational knowledge, utilization of professional resources, and exploration of standards to help students prepare for licensure/certification within the counseling industry.

CNL-505^Δ: Professional Counseling, Ethical, and Legal Considerations 3 credits

This course provides a broad understanding of counseling ethics, legal standards, and responsibilities, including professional identity, report writing, record keeping, and service reimbursement for professional and substance use disorder counselors. Also covered are the history of and current trends in counseling. Important goals of this course are to help students develop a strong personal and professional ethic, as well as an appreciation of the value of professional collaboration and identity.

CNL-509^Δ: Counseling the Culturally Diverse 3 credits

This course provides a broad understanding of issues and trends in a multicultural and diverse society. Studies in this area include the following: attitudes and behaviors based on such factors as age, race, religious preference, physical disability, sexual orientation, ethnicity and culture, family patterns, gender, socioeconomic status and intellectual ability; individual, family, group, and community strategies for working with diverse populations; theories of multicultural counseling and identity development; multicultural competencies; and issues such as substance use disorders. Students examine a variety of cultural populations in multiple regions of the United States, exploring issues and trends that are associated with each population. Cultural considerations for immigrants, refugees, and undocumented citizens are also addressed.

CNL-515^Δ: Counseling Skills 3 credits

This course provides a broad understanding of counseling processes, including characteristics and behaviors that influence the helping processes. Included are age, gender, ethnic differences, verbal and nonverbal behaviors, personal characteristics, and orientations. The development of counseling techniques is emphasized, including establishing and maintaining the counseling relationship; diagnosing and identifying the problem; formulating a preventative, treatment, or rehabilitative plan; facilitating appropriate interventions; and successfully terminating the counseling relationship.

CNL-518^Δ: Lifespan and Development 3 credits

This course provides an understanding of the nature, needs, and differing abilities of individuals at all developmental levels. Theories of individual and family development, transitions across the life span, theories of learning, theories of personality development, and ethical and cultural strategies for facilitating optimum development over the life span are addressed.

CNL-520^Δ: Group Counseling 3 credits

This course provides a broad understanding of group development, group dynamics, group counseling theories, and ethical standards with reference to professional and substance use disorders counseling. The course addresses group process components, appropriate selection criteria, developmental stage theories, group members' roles and behaviors; and group leadership styles and approaches. The course includes didactic and experiential group learning. Required synchronous group experience: 12 hours. Prerequisite: CNL-515.

CNL-521: Counseling Couples and Families 3 credits

This course provides a broad understanding of the structure and dynamics of the family, which may include assessment and methods of marital and family intervention and counseling.

CNL-523: Assessment, Tests, and Measurements 3 credits

This course provides an introduction to basic tests and appraisal in counseling. Individual and group approaches to testing, assessment, evaluation, behavioral observations, computer-managed and computer-assisted methods are addressed. The following statistical concepts are also addressed: scales of measurement, measures of central tendency, indices of variability, shapes and types of distributions, correlations, reliability, and validity.

CNL-525: Career Counseling 3 credits

This course provides a broad understanding of career development and related life factors including psychotherapy, career counseling techniques and processes, career development theories, decision-making models, issues of diversity, and interrelationships between work and family.

CNL-527: Principles of Psychopharmacology 3 credits

This course introduces students to the basic principles of psychopharmacology and the effects of psychoactive substances. Students examine the behavioral, psychological, physiological and social effects of psychoactive substance use, and learn to recognize symptoms of intoxication, withdrawal, and toxicity. The class covers various screening options, limitations, legal implications, and the utilization of pharmacotherapy as part of substance addiction treatment.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CNL-530: Human Sexuality and Issues of Aging 3 credits

This course is divided into two distinct and separate sections. The first part of the course examines human sexuality and systems of sexual therapy. Psychological, biological, social, and moral perspectives on sexual development and functioning are also examined. The last part of the course provides an understanding of the nature of aging and the elderly. Theories and strategies for facilitating optimum care of the elderly are addressed. Elder abuse, dependent adult abuse, and neglect of the aging and elderly are explored. Sexuality, mental health, physical health, the role of substance use disorders, and family issues are also addressed.

CNL-540^Δ: Research Methods and Program Evaluation 3 credits

This course introduces research methods and basic statistical analysis, including the following: the importance of research, opportunities for research, and difficulties in conducting research. Research methods such as qualitative, quantitative, single-case designs, action research, and outcome-based research are addressed.

CNL-542: Consulting in Counseling 3 credits

This course provides an overview of the consulting process and dynamics as they relate to the counseling field. The course covers theoretical approaches, models, strategies, and the use of psychoeducation in the consultation process in various settings including counseling. The course also reviews the various roles and functions of a counselor in multiple settings, including human services, education, multidisciplinary, and integrated behavioral health care system.

CNL-545: Abuse, Crisis, and Trauma Counseling 3 credits

This eight-topic course is divided into three distinct and separate sections. The first three topics examine crisis intervention and trauma counseling; Theories and strategies of trauma counseling and facilitating crisis interventions are also addressed. The second three topics examine spousal or partner abuse assessment, detection, and intervention strategies. The legal and ethical issues, the role of substance use disorders, and children in families where domestic violence and abuse occur are also addressed. The last two topics examine child abuse assessment and reporting. Legal and ethical issues and specific California child abuse assessment and reporting codes are also examined.

CNL-605: Psychopathology 3 credits

This course introduces the study of mental illnesses and the science of psychopathology. The goal is to provide counseling students a conceptual understanding of psychological and behavioral dysfunction that occurs in mental illnesses. The course includes a survey of major psychiatric disorders and their causes.

CNL-610: Clinical Assessment, Diagnosis, and Treatment 3 credits

This course provides a conceptual framework for the use of assessment and diagnostic tools for the development of appropriate treatment interventions for a variety of behavioral health and substance use disorders. Included is an introduction to the use of the diagnostic tools, including the DSM, and the integration of diagnostic and assessment information, in the development of treatment plans.

CNL-624: Counseling Practicum 2 credits

The practicum course is a distinctly defined, supervised clinical fieldwork experience in which the student develops basic counseling skills and integrates professional knowledge under the supervision of a faculty member or an on-site clinical site supervisor approved by the college or university with a minimum of 1 hour per week of individualized and/or triadic supervision throughout the practicum. Practicum students participate in an average of 1 ½ hours per week of group supervision with a counseling faculty member or student supervisor who is under the supervision of a counselor education program faculty member on a regular schedule throughout the practicum. Documentation of a minimum requirement of 100 hours of counseling-related activities, which includes 40 direct client contact hours, is submitted directly to the college's Office of Field Experience for verification and tracking. The practicum is completed prior to the internship; therefore, students may not progress to CNL-664A without the required amount of hours submitted, the required amount of individual and group supervision, and proper approval. This course has multiple synchronous required activities. Students must be prepared to be flexible in meeting the demands of this course in order to progress to the internship. Practicum/field experience hours: 100. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Prerequisites: Completion of all didactic coursework in the program; a GPA of 3.0 or better; and maintenance of student professional liability insurance in the amount of \$1 million, \$3 million.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CNL-624A: Counseling Practicum II 2 credits

This is a continuation of the counseling practicum. The practicum course is a distinctly defined, supervised clinical fieldwork experience in which the student develops basic counseling skills and integrates professional knowledge under the supervision of a faculty member or an on-site clinical site supervisor approved by the college or university with a minimum of 1 hour per week of individualized and/or triadic supervision throughout the practicum. Practicum students participate in an average of 1 ½ hours per week of group supervision with a counseling faculty member or student supervisor who is under the supervision of a counselor education program faculty member on a regular schedule throughout the practicum. Documentation of a minimum requirement of 100 hours of counseling-related activities, which includes 40 direct client contact hours, is submitted directly to the college's Office of Field Experience for verification and tracking.. The practicum is completed prior to the internship; therefore, students may not progress to CNL-664A without the required amount of hours submitted, the required amount of individual and group supervision, and proper approval. This course has multiple synchronous required activities. Students must be prepared to be flexible in meeting the demands of this course in order to progress to the internship. Practicum/field experience hours: 100. Students must complete the minimum amount of hours required. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Prerequisites: CNL-624; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

CNL-644: Assessment of Mental and Emotional Health Status 2 credits

Students in this course are introduced to a variety of testing instruments used to determine a client's emotional or mental status. Assessment procedures are explored within the context of diagnosis and treatment planning. This course focuses on the administration and interpretation of individual and group standardized tests of mental ability, personality, and measurement.

CNL-664A: Counseling Internship I 4 credits

The internship course is a distinctly defined, supervised clinical experience in which the student refines and enhances basic counseling and student development of knowledge and skills, and integrates and authenticates professional knowledge and skills related to program objectives. The internship is performed under the supervision of an on-site clinical site supervisor approved by the college or university with an average of 1 hour per week of individualized and/or triadic supervision throughout the internship. Internship students participate in a minimum of 1 ½ hours per week of group supervision with a counseling faculty member or student supervisor who is under the supervision of a counselor education program faculty member on a regular schedule throughout the internship. Documentation of 300 hours of counseling-related activities, which includes a required minimum of 120 direct client contact hours, is submitted directly to the college's Office of Field Experience for verification and tracking. Internship hours: A minimum of 300 total hours of which 120 is total direct hours. Students must successfully complete CNL-624 before progressing to the internship. This course has multiple synchronous required activities. Students must be prepared to be flexible in meeting the demands of this course in order to meet the internship requirements. Practicum/field experience hours: 300. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Prerequisites: CNL-624; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

CNL-664B: Counseling Internship II 4 credits

The internship course is a distinctly defined, supervised clinical experience in which the student refines and enhances basic counseling and student development of knowledge and skills, and integrates and authenticates professional knowledge and skills related to program objectives. The internship is performed under the supervision of an on-site clinical site supervisor approved by the college or university with an average of 1 hour per week of individualized and/or triadic supervision throughout the internship. Internship students participate in a minimum of 1 ½ hours per week of group supervision with a counseling faculty member or student supervisor who is under the supervision of a counselor education program faculty member on a regular schedule throughout the internship. Documentation of 300 hours of counseling-related activities, which includes a required minimum of 120 direct client contact hours, is submitted directly to the college's Office of Field Experience for verification and tracking. This course has multiple synchronous required activities. Students must be prepared to be flexible in meeting the demands of this course in order to meet the internship requirements. Practicum/field experience hours: 300. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Prerequisites: CNL-664A; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CNL-664C: Counseling Internship III 1 credits

This is a continuation of the counseling internship. The internship course is a distinctly defined, supervised clinical experience in which the student refines and enhances basic counseling and student development of knowledge and skills, and integrates and authenticates professional knowledge and skills related to program objectives. The internship is performed under the supervision of an on-site clinical site supervisor approved by the college or university with an average of 1 hour per week of individualized and/or triadic supervision throughout the internship. Internship students participate in a minimum of 1 ½ hours per week of group supervision with a counseling faculty member or student supervisor who is under the supervision of a counselor education program faculty member on a regular schedule throughout the internship. Documentation of a minimum of 300 hours of counseling-related activities, which includes a minimum of 40 direct client contact hours, is submitted directly to the college's Office of Field Experience for verification and tracking. This course has multiple synchronous required activities. Students must be prepared to be flexible in meeting the demands of this course in order to meet the internship requirements. Practicum/field experience hours: 300. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Prerequisites: CNL-664B; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

Communications (COM)

COM-100♦: Fundamentals of Communication 4 credits

This course is an introduction to the field of communication with emphasis on the history of communication study, relevant communication theories guiding current research, the contexts in which communication occurs, and issues faced by students of communication. The course focuses on introducing students to various communication models as well as theories and skills in interpersonal communication, small group communication, mass communication, intercultural communication, and public communication.

COM-100XV: Fundamentals of Communication 4 credits

This course is an introduction to the field of communication with emphasis on the history of communication study, relevant communication theories guiding current research, the contexts in which communication occurs, and issues faced by students of communication. The course focuses on introducing students to various communication models as well as theories and skills in interpersonal communication, small group communication, mass communication, intercultural communication, and public communication.

COM-126♦: Communications and the Media 4 credits

This course is a study of media history and theory with an emphasis on the implications and impact of mass messages on meaning, culture, and society.

COM-210♦: Public Speaking 4 credits

This basic course in oral communication uses focused content to practice the principles of effective oral presentation. The lectures, speaking assignments, and all written work will acquaint the student with the theory, practice, and necessary technological literacy required for effective message building and presentation.

COM-211HN♦: Honors Public Speaking 4 credits

This basic course in oral communication uses focused content to practice the principles of effective oral presentation. The lectures, speaking assignments, and all written work will acquaint the student with the history, theory, practice, and necessary technological literacy required for effective message building and presentation.

COM-222♦: Small Group Communication 4 credits

This course examines the principles and processes of small groups and the development of skills for participation and leadership in small group settings, as well as practice in problem solving, decision making, critical reasoning, and information sharing.

COM-222XV: Small Group Communication 4 credits

This course examines the principles and processes of small groups and the development of skills for participation and leadership in small group settings, as well as practice in problem solving, decision making, critical reasoning, and information sharing.

COM-263A♦: Elements of Intercultural Communication 4 credits

This writing-intensive course focuses on improving communication among people with different racial, ethnic, cultural, and minority backgrounds. Students explore verbal and nonverbal communication behaviors in a variety of communication media and contexts. Communication styles, rituals, and traditions are explored through an examination of mass media, family structure, religion, politics, education, social life, art, and literature.

COM-263XV: Elements of Intercultural Communication 4 credits

This writing intensive course focuses on improving communication among people with different racial, ethnic, cultural, and minority backgrounds. Students explore verbal and nonverbal communication behaviors in a variety of communication media and contexts. Communication styles, rituals, and traditions are explored through an examination of mass media, family structure, religion, politics, education, social life, art, and literature.

COM-302♦: Writing for the Media 4 credits

This course is a study of the content, styles, and formats of media writing, with an emphasis on the differences in writing across diverse media modalities.

^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | Ω Non-Transferable

COM-312♦: Conflict and Negotiation 4 credits

This course is designed to introduce the concepts and theories relevant to understanding conflict communication and the negotiation process. In this course, students are introduced to various elements of conflict and negotiation communication across a variety of contexts including interpersonal, organizational, and international. Upon completion of this course, students will be able to analyze power dynamics in relationships, identify conflict styles and tactics, and apply intervention techniques in contexts that are relevant to their future relationships and careers.

COM-315^♦: Intercultural Communications 4 credits

This writing-intensive course creates an awareness of the skills necessary to promote positive communication and relationships across cultural differences. Students explore verbal and nonverbal communication behaviors. Other cultures are explored through an examination of demographics, family structure, religion, politics, education, social life, art, and literature.

COM-321♦: Public Relations Writing and Design 4 credits

This course is a study of planning, producing, and evaluating written public relations messages for and from a variety of media, including print, broadcast, and the Web. Student writing assignments include news releases, newsletters, public service announcements, coverage memos, position papers, background papers, reports, and proposals.

COM-333: Communication Ethics 4 credits

This course introduces students to the study of ethics as it applies in the communication field. As aspiring communication professionals, students need to learn how to engage in communication that is not only appropriate but also responsive to sound ethical principles. In this course, students learn about major ethical theories and explore how these theories are applied in workplace communication, interpersonal relationships, mass media, and intercultural communication contexts.

COM-355♦: Communication Research Methods 4 credits

This course provides an overview of the concepts, methods, and tools for communication research design, implementation, interpretation, and critical evaluation in communication research. Prerequisite: COM-100.

COM-355HN^♦: Communication Research Methods 4 credits

This course provides an overview of the concepts, methods, and tools for communication research design, implementation, interpretation, and critical evaluation in communication research. Prerequisites: ENG-106, COM-100, and MAT-144.

COM-362♦: Argumentation and Advocacy 4 credits

This course introduces students to the relationship between argumentation and advocacy as well as the role of worldviews in shaping the arguments surrounding relevant social issues. This course presents the concepts and skills related to the study of argumentation. Students are introduced to the principles and elements of argumentation in everyday communication across contexts, as well as the skills necessary in constructing and evaluating written and oral arguments.

COM-362HN^♦: Argumentation and Advocacy 4 credits

This course introduces students to the relationship between argumentation and advocacy as well as the role of worldviews in shaping the arguments surrounding relevant social issues. This course presents the concepts and skills related to the study of argumentation. Students are introduced to the principles and elements of argumentation in everyday communication across contexts, as well as the skills necessary in constructing and evaluating written and oral arguments.

COM-370♦: Principles of Public Relations 4 credits

This course investigates the principles and theories of public relations. Students receive an overview of the function and practices of the growing public relations industry in both profit and nonprofit contexts. This course examines the relationships between the public relations practitioner and various groups including clients, consumers, employees, and media.

COM-435♦: Consumer Communications and Behavior 4 credits

This course provides an integrated marketing communications perspective for today's changing world as well as a behavioral science approach that studies distinct buyer strategies and decision-making processes of purchase by consumers. Topics include external and internal influences on today's buyers, purchase and postpurchase processes, customer satisfaction, customer commitment, branding and positioning, creative strategies, media strategies, distribution strategies, and integrated marketing communications.

COM-445♦: Communication Issues and Critical Thinking 4 credits

This course provides a capstone, or practicum, for the communications student that facilitates the practical application of historical and modern communications styles across modalities in language that is industry-specific. The course emphasizes the ethical and social responsibility of communications in real-world situations.

COM-451^♦: Relational Communication 4 credits

This writing-intensive course focuses on the communication processes in personal relationships such as romantic relationships, family relationships, and friendships. Through quantitative and qualitative methods and other theoretical perspectives, students in this class examine the expression and interpretation of messages in everyday personal interactions as well as significant relational events. Students also explore communication processes involved in developing, maintaining, and dissolving relationships, how communication impacts partners and their relationships, and how to improve relational quality or individual well-being through communication.

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | ^ Non-Transferable

COM-451HN^{Δ♦}: Relational Communication 4 credits

This writing intensive course focuses on the communication processes in personal relationships such as romantic relationships, family relationships, and friendships. Through quantitative and qualitative methods and other theoretical perspectives, students in this class examine the expression and interpretation of messages in everyday personal interactions as well as significant relational events. Students also explore communication processes involved in developing, maintaining, and dissolving relationships, how communication impacts partners and their relationships, and how to improve relational quality or individual well-being through communication.

Prerequisite: COM-355.

COM-456♦: Organizational Communication 4 credits

The course covers historical and contemporary organizational theory and application across organizational contexts of corporate communication, team/small group communication, and interpersonal communication. Organizational theory and application topics, including leadership, are covered within each major area.

COM-456HN♦: Organizational Communication 4 credits

The course covers historical and contemporary organizational theory and application across organizational contexts of corporate communication, team/small group communication, and interpersonal communication. Organizational theory and application topics, including leadership, are covered within each major area.

COM-472♦: Training and Development 4 credits

This course is designed to help students develop an understanding of training and development in an organizational setting with a particular focus on teaching communication skills and learning the art and science of designing, developing, delivering, and evaluating training and development programs. Training and development as a career field is a significant focus. Prerequisite: COM-355.

COM-475♦: Communication Campaigns 4 credits

Communication campaigns use a myriad of persuasive strategies to reach a specified audience. This course emphasizes the theoretical art of persuasion and strategic applications in communication campaigns. Students analyze a variety of social, political, environmental, health, and marketing campaigns. Additionally, students design and institute a communication campaign of their choosing. Prerequisite: COM-355.

COM-496: Special Topics in Communication 4 credits

In this course, students explore contemporary issues in communication theory, research, and practice. It features subjects of importance in communications that involve research, reading, presentations, and discussions in a seminar format. Featured subjects could be culture, mass media, interpersonal relationships, business, politics, faith, or such other subjects that invite scholarly communication inquiry and serious, focused discussion.

COM-500: Relationships in the Workplace 4 credits

This course focuses on theories of interpersonal communication and their application in a variety of professional contexts. The course builds upon a foundation of relational communication theories to address problems that arise in workplace relationships, including leadership communication, managing emotions at work, working in groups, and becoming social influencers. The course builds skills in direct and indirect messaging, listening, managing perceptions and workplace identity, negotiating conflict, and more.

COM-505: Organizations, Culture, and Society 4 credits

This course covers theoretical approaches to organizational culture; the processes by which organizations, create, manage, and modify organizational culture; and the ways in which organizational culture is communicated to both internal and external audiences. The course also investigates organizations' larger relationships with society through examining corporate social responsibility, public policy, and ethics and by considering how organizations manage these spheres of influence and weigh business decisions in the larger context of the collective community in which organizations operate.

COM-510: Strategic Communication 4 credits

This course focuses on the concepts and theories of strategic communication and their relevance for constructing effective and ethical organizational messages for diverse audiences. The course prepares communicators to make organizational messages meaningful to stakeholders within organizations as well as stakeholders outside organizations. Through an emphasis on real-world applications, students learn how to ethically and effectively persuade through carefully crafted, contextually sensitive messages. The course does so by examining principles and theories of argumentation, persuasion, and behavior change. Students practice skills associated with these concepts as they apply to future career contexts.

COM-515: Training, Learning and Pedagogy 4 credits

This course emphasizes principles of pedagogy and student learning in the context of communication studies. Students are encouraged to apply education frameworks and praxis-based training to a communication classroom. Through an emphasis on real-world organizational development, traditional theories of student comprehension, and modern pedagogy, this course prepares students to teach a diverse and eclectic range of communication courses.

COM-520: Media Literacy 4 credits

Students in this course learn the underlying theories, methodologies, and effects of media consumption. This course emphasizes the role and influence of television, radio, social media, internet blogs and websites, and other media outlets on a globalized, interconnected world. The course builds on these concepts by encouraging students to critically evaluate ever-present media messages through applied projects and group work.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

COM-525: Organizational Communication 4 credits

This course investigates the interactions between organizational structure and communication within organizations. Theoretical and methodological analyses are emphasized. Specifically, students in the course examine how discourse, meanings, symbols, and information flow in organizational context.

Computer Science (CST)

CST-105[♦]: Computer Programming I 4 credits

This course introduces the fundamental concepts and syntax of the Java programming language. The course focuses on object-oriented techniques in Java with an emphasis on problem solving and fundamental algorithms.

CST-105N[♦]: Computer Programming I 4 credits

This course introduces the fundamental concepts and syntax of the Java programming language. The course focuses on object-oriented techniques in Java with an emphasis on problem solving and fundamental algorithms.

CST-105XV: Computer Programming I 4 credits

This course introduces the fundamental concepts and syntax of the Java programming language. The course focuses on object-oriented techniques in Java with an emphasis on problem solving and fundamental algorithms.

CST-111[♦]: Introduction to Computer Science and Information Technology 4 credits

This course provides a foundation for programming and problem solving using computer programming, as well as an introduction to the academic discipline of IT. Topics include variables, expressions, functions, control structures, and pervasive IT themes: IT history, organizational issues, and relationship of IT to other computing disciplines. The course prepares students for advanced concepts and techniques in programming and information technology, including object-oriented design, data structures, computer systems, and networks. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing code that implements concepts discussed in lecture and on gaining initial exposure to common operating systems, enterprise architectures, and tools commonly used by IT professionals. Prerequisite: MAT-154 or MAT-261.

CST-111XV: Introduction to Computer Science and Information Technology 4 credits

This course provides a foundation for programming and problem solving using computer programming, as well as an introduction to the academic discipline of IT. Topics include variables, expressions, functions, control structures, and pervasive IT themes: IT history, organizational issues, and relationship of IT to other computing disciplines. The course prepares students for advanced concepts and techniques in programming and information technology, including object-oriented design, data structures, computer systems, and networks. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing code that implements concepts discussed in lecture and on gaining initial exposure to common operating systems, enterprise architectures, and tools commonly used by IT professionals. Prerequisite: MAT-154 or MAT-261.

CST-117[♦]: Enterprise Applications Programming I 4 credits

This course provides an introduction to the fundamentals of C# programming and the .NET platform. The course covers program design and development, debugging techniques, structured and object-oriented programming and basic GUI elements. Prerequisite: MAT-154.

CST-117N: Enterprise Applications Programming I 4 credits

This course provides an introduction to the fundamentals of C# programming and the .NET platform. The course covers program design and development, debugging techniques, structured and object-oriented programming and basic GUI elements. Prerequisite: MAT-154.

CST-126[♦]: Database Application Programming I 4 credits

This course introduces the relational database model using MySQL. Students learn to install, configure, and populate tables with data. The course also introduces the fundamentals of programming languages such as PHP and Python, with the focus on building user interfaces and web applications for interacting with and querying MySQL databases. Prerequisite: MAT-154.

CST-135[♦]: Computer Programming II 4 credits

This course focuses on software development using the Java programming language. The course exposes the relationships between machine architecture and data organization through Java-based projects, including algorithmic machines. Prerequisite: CST-105.

CST-135N[♦]: Computer Programming II 4 credits

This course focuses on software development using the Java programming language. The course exposes the relationships between machine architecture and data organization through Java-based projects, including algorithmic machines. Prerequisite: CST-105N.

[♦] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CST-135XV: Computer Programming II 4 credits

This course focuses on software development using the Java programming language. The course exposes the relationships between machine architecture and data organization through Java-based projects, including algorithmic machines. Prerequisite: CST-105.

CST-201♦: Algorithms and Data Structures 4 credits

This course covers classical algorithms and data structures, with an emphasis on implementation and application in solving real-world computational problems. The course focuses on algorithms for sorting, searching, string processing, and graphs. Students learn basic strategies to evaluate divide-and-conquer, recursive backtracking, and algorithm efficiency. Hands-on activities focus on writing code that implements concepts and algorithm implementation techniques. Prerequisite: CST-210 or CST-135.

CST-210♦: Object-Oriented Programming Lecture & Lab 4 credits

This course provides an in-depth coverage of object-oriented programming using most current application programming methods, languages, and tools. Students will design, create, run, and debug applications. The course emphasizes the development of correct, well-documented programs using object-oriented programming concepts. Prerequisite: CST-110 or CST-111 or CST-105.

CST-211♦: Programming for Engineering & Lab 4 credits

This course provides students with the basic concepts of programming. Students will solve engineering problems by designing and modularizing solutions with proper use of functions and objects. They will understand good techniques of programming style, as well as have the ability to design, code, debug, and document program solutions. Prerequisite: MAT-261.

CST-213HN♦: Computer Programming III & Lab 4 credits

This course covers user interfaces, event and exception handling, Java I/O, and the collection framework. Students build applications using software engineering methods including design models and implementation/testing strategies, while learning to assume professional responsibilities. Prerequisite: CST-115.

CST-215♦: Digital Logic and Design Lecture & Lab 4 credits

This is an introductory course in discrete mathematics with digital logic. Topics covered include Boolean algebra, circuits, number theory, sequences, recursion, sets, functions, and counting. An emphasis will be placed on writing computer programs that address key concepts discussed in lecture. Prerequisite: CST-110 or CST-111 or CST-105.

CST-217♦: Principles of Database Design and Programming Lecture & Lab 4 credits

This course provides students with the technical skills required to design and implement a database solution using a SQL server. Students use data definition language (DDL) to create and delete database objects, and data manipulation language (DML) to access and manipulate those objects. Students gain hands-on experience with database design, data normalization, SQL sub-queries, creating and using views, understanding and working with data dictionaries, and loading and unloading databases. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing code that implements concepts discussed in the lecture course, specifically creating databases and SQL queries. Prerequisite: CST-110 or CST-111 or CST-105.

CST-217HN♦: Principles of Database Design and Programming Lecture & Lab 4 credits

This course provides students with the technical skills required to design and implement a database solution using a SQL server. Students use data definition language (DDL) to create and delete database objects, and data manipulation language (DML) to access and manipulate those objects. Students gain hands-on experience with database design, data normalization, SQL sub-queries, creating and using views, understanding and working with data dictionaries, and loading and unloading databases. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing code that implements concepts discussed in the lecture course, specifically creating databases and SQL queries. Prerequisite: CST-110 or CST-111.

CST-220HN♦: Operating Systems Concepts & Lab 4 credits

This course is an introduction to UNIX-derived open-source operating systems. Students explore the history and development trends in open-source OS. The course covers the file system, user commands and utilities, graphical user interfaces, editors, manual pages, and shells. Prerequisite: CST-115 or BIT-210.

CST-221♦: Operating Systems Concepts 4 credits

This course is an introduction to UNIX-derived open-source operating systems. Students explore the history and development trends in open-source OS. The course covers the file system, user commands and utilities, graphical user interfaces, editors, manual pages, and shells. Prerequisite: CST-135 or BIT-210.

CST-227♦: Enterprise Applications Programming II 4 credits

This course combines coverage of advanced features of the C# programming language with building complex enterprise applications. Students acquire advanced techniques in managing program flow, the application lifecycle, security, and data access. Prerequisite: CST-117.

CST-227N: Enterprise Applications Programming II 4 credits

This course combines coverage of advanced features of the C# programming language with building complex enterprise applications. Students acquire advanced techniques in managing program flow, the application lifecycle, security, and data access. Prerequisite: CST-117N.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CST-235♦: Computer Programming III 4 credits

This course covers user interfaces, event and exception handling, Java I/O, and the collection framework. Students build applications using software engineering methods including design models and implementation/testing strategies, while learning to assume professional responsibilities. Prerequisite: CST-135.

CST-235HN♦: Computer Programming III 4 credits

This course covers user interfaces, event and exception handling, Java I/O, and the collection framework. Students build applications using software engineering methods including design models and implementation/testing strategies, while learning to assume professional responsibilities. Prerequisite: CST-135.

CST-235N♦: Computer Programming III 4 credits

This course covers user interfaces, event and exception handling, Java I/O, and the collection framework. Students build applications using software engineering methods including design models and implementation/testing strategies, while learning to assume professional responsibilities. Prerequisite: CST-135N.

CST-236♦: Database Application Programming II 4 credits

This course focuses on the development of dynamic web applications using frameworks such as PHP and Python to interact with MySQL and web servers. Students learn to design, prototype, and deploy dynamic, database-driven websites with basic security layers. Prerequisite: CST-126.

CST-247♦: Enterprise Applications Programming III 4 credits

This course focuses on the development of dynamic web applications using ASP.NET and C#. Students employ test-driven programming methodologies to develop secure, high-performance, database driven applications. Prerequisite: CST-227.

CST-247N: Enterprise Applications Programming III 4 credits

This course focuses on the development of dynamic web applications using ASP.NET and C#. Students employ test-driven programming methodologies to develop secure, high-performance, database driven applications. Prerequisite: CST-227N.

CST-256♦: Database Application Programming III 4 credits

This course focuses on the design and implementation of complex, secure, optimized, and scalable MySQL databases. Students develop high performance database applications using frameworks such as PHP and Python. Prerequisite: CST-236.

CST-301: Principles of Programming Languages Lecture and Lab 4 credits

This course introduces the syntax and semantics of programming languages, program construction and software design. Lab activities will focus on analyzing the characteristics of context-free languages and solving a variety of languages construction challenges. Practicum/field experience hours: None. Principles of Programming Languages Lecture and Lab. Prerequisite: Prerequisite: CST-201, CST-215, MAT-262.

CST-305♦: Principles of Modeling and Simulation Lecture & Lab 4 credits

This course covers applications of differential equations in modeling and simulation. Students use mathematical models for continuous and discrete simulation, and develop applications for complex systems across a variety of domains. Students learn how to represent a system by a model and then execute the model to generate and statistically analyze data. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing code that implements differential equation based modeling algorithms and visual simulations. Prerequisites: CST-210 and MAT-374.

CST-307♦: Introduction to Computer Architecture Lecture & Lab 4 credits

This course introduces current trends in computer architecture with a focus on performance measurement, instruction sets, computer arithmetic, design and control of a data path, pipelining, memory hierarchies, input and output, and a brief introduction to multiprocessors. The laboratory reinforces and expands learning of principles introduced in the lecture course. Hands-on activities focus on writing assembly language code that implements concepts discussed in the lecture course, focusing on registers, processes, threads, and I/O management. Prerequisites: MAT-252 or MAT-262, and CST-110 or CST-111 or CST-105.

CST-310♦: Computer Graphics Lecture & Lab 4 credits

This course covers 2D and 3D concepts, algorithms, and implementation methods using shader-based programming. Main topics covered include coordinate systems, transformations, material simulation, and animation. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing vertex shaders and fragment shaders to implement light equations for coloring effects, textures, materials, and animation. Prerequisites: CST-210, MAT-262, and MAT-345.

CST-315♦: Operating Systems Lecture & Lab 4 credits

This course explains the concepts, structure, and mechanisms of modern operating systems. The course covers computational resources, such as memory, processors, networks, security, and how the programming languages, architectures, and operating systems interact. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing a shell that implements process management, file management, and I/O management. Prerequisites: CST-210 and MAT-262.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CST-320[△]: Human-Computer Interaction and Communication Lecture & Lab 4 credits

This course reviews the basic principles, tools, and techniques used in computer applications that enable communication, visualization, access to information, learning and entertainment. Students learn the methods of designing, implementing and evaluating techniques for effective communication in a technical, business, education or entertainment context. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on experiencing and implementing concepts discussed in the lecture. Students create applications that communicate ideas efficiently and are easy to use. This is a writing intensive course. Prerequisite: CST-201, MAT-262.

CST-323[♦]: Cloud Computing 4 credits

This course examines cloud computing and its transformative impact on the IT industry. Students develop applications using a Software-as-a-Service (SaaS) model. The course examines the most important APIs used in leading industry cloud service providers. Students will learn how to use the cloud as the infrastructure for existing and new services. Prerequisite: CST-210 or CST-111 or CST-235, or CST-227.

CST-326^{△♦}: Written and Verbal Communication for Software Development 4 credits

This course focuses on gathering and communicating requirements, functional specs, and technically documenting activities associated with software development. Topics cover the managerial aspect of the software development life cycle, delivery, and integration. Hands-on activities focus on communication using professional project management software to implement a system for planning, tracking, and auditing the use of resources within the context of a software project. This is a writing intensive course. Prerequisite: CST-227 or CST-236.

CST-341[♦]: Open Source Computing 4 credits

This course covers the concepts, tools, and frameworks of Open Source software development. Using open source operating systems like Linux, students develop an acquaintance with compilers, scripting languages, frameworks, build tools, APIs, version control software, and their licensing constraints. Students also learn how to participate in and contribute to open-source projects. Prerequisite: CST-135 or CST-235 or BIT-210.

CST-341HN^{△♦}: Open Source Computing 4 credits

This course covers the concepts, tools, and frameworks of Open Source software development. Using open source operating systems like Linux, students develop an acquaintance with compilers, scripting languages, frameworks, build tools, APIs, version control software, and their licensing constraints. Students also learn how to participate in and contribute to open-source projects. Prerequisite: CST-135 or CST-235 or BIT-210.

CST-341N[♦]: Open Source Computing 4 credits

This course covers the concepts, tools, and frameworks of Open Source software development. Using open source operating systems like Linux, students develop an acquaintance with compilers, scripting languages, frameworks, build tools, APIs, version control software, and their licensing constraints. Students also learn how to participate in and contribute to open-source projects. Prerequisite: CST-135N or CST-235N or BIT-210.

CST-360HN^{△♦}: Design Patterns in Java & Lab 4 credits

This course builds upon prior foundations in computer programming by presenting advanced concepts and techniques for improving new code and refactor existing code for simplicity, manageability, and performance. Students expand their skills in object oriented analysis and design, and learn to apply classical design patterns to a variety of object oriented programming challenge. Prerequisite: CST-235.

CST-361[♦]: Design Patterns in Java 4 credits

This course builds upon prior foundations in computer programming by presenting advanced concepts and techniques for improving new code and refactor existing code for simplicity, manageability, and performance. Students expand their skills in object oriented analysis and design, and learn to apply classical design patterns to a variety of object oriented programming challenge. Prerequisite: CST-135.

CST-361HN^{△♦}: Design Patterns in Java 4 credits

This course builds upon prior foundations in computer programming by presenting advanced concepts and techniques for improving new code and refactor existing code for simplicity, manageability, and performance. Students expand their skills in object oriented analysis and design, and learn to apply classical design patterns to a variety of object oriented programming challenge. Prerequisite: CST-235.

CST-381: Web Application Development 4 credits

Using current development trends, students examine several front-end and back-end frameworks used to build web applications. Students learn how to program these modern frameworks, as well as how to integrate them using traditional enterprise technologies. Prerequisites: CST-235 or CST-247 or CST-256 and CST-341. Prerequisites: CST-235 or CST-247 or CST-256 and CST-341.

CST-403: Computer Science Internship I 2 credits

The optional internship provides students the opportunity to work as practitioners within their field and to practice principles learned in their major area of study by working in an outside organization under the supervision of a professional. The internship enables students and organizations to benefit from real-world application of classroom instruction. The internship can substitute for one of the following: STG-451. Prerequisite: Permission of the Director of the Internship Program.

[△] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CST-404: Computer Science Internship II 2 credits

The optional internship provides students the opportunity to work as practitioners within their field and to practice principles learned in their major area of study by working in an outside organization under the supervision of a professional. The internship enables students and organizations to benefit from real-world application of classroom instruction. The internship can substitute for one of the following: STG-452. Prerequisite: Permission of the Director of the Internship Program.

CST-405♦: Principles of Compiler Design 4 credits
Lecture & Lab

This course reviews the concepts and tools used in the development of compilers. Students synthesize topics covered in previous courses: formal languages, data structures, and computer architecture. The course reinforces the principles of software engineering and development through a complete cycle of building a working compiler. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing a compiler including a lexer, parser, semantic analyzer, code generator, and optimizer. Prerequisites: CST-301 and MAT-374.

CST-410♦: Game Design and Game Play 4 credits
Lecture & Lab

This course covers conceptual models for game design. Students analyze various computer games and develop and understanding of game concepts like history, genres, storylines, gameplay elements and challenges, and the design process. Students survey several modern tools and technologies used to create games. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on creating game storyboards, designing game levels with increasing complexity, and representations of real life phenomena and processes. Prerequisites: CST-305, CST-320, and MAT-374.

CST-410HN♦: Game Design and Game Play 4 credits
Lecture & Lab

This course covers conceptual models for game design. Students analyze various computer games and develop and understanding of game concepts like history, genres, storylines, gameplay elements and challenges, and the design process. Students survey several modern tools and technologies used to create games. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on creating game storyboards, designing game levels with increasing complexity, and representations of real life phenomena and processes. Prerequisites: CST-305, CST-310, CST-320, and MAT-374.

CST-415♦: AI in Games and Simulations 4 credits
Lecture & Lab

The course introduces basic concepts of AI in the gaming context such as finite state machines, fuzzy logic, architectures, planning, and search. Students will work with implementations of common game AI algorithms for behaviors such as path finding, behavior selection, and learning. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on implementing algorithms for flocking, A* path finding, decision trees, and deterministic finite state machines. Prerequisites: MAT-345, and MAT-374.

CST-416♦: Mobile Game Development Lecture 4 credits
& Lab

This course explores iterative, rapid application development techniques, and cross platform development environments, to produce and publish a game for a mobile operating systems. Topics covered include performance profiling and optimization, hardware acceleration, designing for small screens, and interaction via mobile device specific inputs. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on creating a complete application for a mobile device and publish it on an online store. The application will utilize the key APIs provided on the device, including location awareness, motion detection, networking, and tactile user interface. Prerequisite: CST-305, CST-310, CST-320, MAT-374.

CST-416HN♦: Mobile Game Development Lecture 4 credits
& Lab

This course explores iterative, rapid application development techniques, and cross platform development environments, to produce and publish a game for a mobile operating systems. Topics covered include performance profiling and optimization, hardware acceleration, designing for small screens, and interaction via mobile device specific inputs. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on creating a complete application for a mobile device and publish it on an online store. The application will utilize the key APIs provided on the device, including location awareness, motion detection, networking, and tactile user interface. Prerequisite: CST-305, CST-310, CST-320, MAT-374.

CST-424♦: Research Methods 4 credits

This course prepares students to conduct research across a range of IT disciplines. The course introduces students to research methods, research design, research ethics, and techniques of data collection and analysis appropriate to IT. While interpreting others' research, students acquire the skills and knowledge to conduct and communicate their own research. Prerequisite: MAT-134 or MAT-154.

CST-425♦: Very Large Information Systems 4 credits
Lecture & Lab

This course introduces modern theories, design, and implementation models for large scale text-based information systems. The information retrieval methodologies include Boolean, vector space, probabilistic, inference net, and language modeling. Students will acquire hands-on experience by implementing models such as clustering algorithms, automatic text categorization, and experimental evaluation. Students will experiment with cross-context retrieval algorithms, intelligent text summarization, topic detection, tagging, and tracking. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on implementing techniques for efficiently managing and manipulating very large data sets residing in a distributed SQL database. Prerequisites: MAT-374 and (CST-217 or SYM-400).

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CST-435♦: Search Engines and Data Mining 4 credits
Lecture & Lab

This course provides a comprehensive introduction to the location, retrieval, and conversion of raw data into usable information. Students implement algorithms for organizing and searching very large data collections, typically found in enterprise databases and on websites. Students used clustering and categorization to generate various information taxonomies based on document ranking, evaluation, and classification. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on performing data mining on a large business database and extracting trends and actionable information. Prerequisites: MAT-374 and (CST-217 or SYM-400).

CST-435HN♦: Search Engines and Data Mining 4 credits
Lecture & Lab

This course provides a comprehensive introduction to the location, retrieval, and conversion of raw data into usable information. Students implement algorithms for organizing and searching very large data collections, typically found in enterprise databases and on websites. Students used clustering and categorization to generate various information taxonomies based on document ranking, evaluation, and classification. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on performing data mining on a large business database and extracting trends and actionable information. Prerequisites: CST-217, CST-305, CST-307, CST-310, and MAT-374.

CST-440♦: Analytics for Dynamic Social Networks Lecture & Lab 4 credits

This course focuses on very large web-based sources of information such as social networks and semantic networks. Students analyze dynamic data and trends, connections (links), and patterns of self-organization. Students then utilize intelligent inferential techniques to interpret patterns in the collected information and translate them into actionable items. Hands-on experiences include marketing, organizational structure, security, and human analytics. Prerequisites: MAT-374 and (CST-217 or SYM-400).

CST-440HN♦: Analytics for Dynamic Social Networks Lecture & Lab 4 credits

This course focuses on very large web-based sources of information such as social networks and semantic networks. Students analyze dynamic data and trends, connections (links), and patterns of self-organization. Students then utilize intelligent inferential techniques to interpret patterns in the collected information and translate them into actionable items. Hands-on experiences include marketing, organizational structure, security, and human analytics. Prerequisites: CST-217, CST-305, CST-307, CST-310 and MAT-374.

CST-451^{ΔΩ}: Senior Project I 2 credits

The first capstone course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course. Prerequisite: CST-410 or CST-424.

CST-451HN^{Δ†}: Senior Project I 2 credits

The first capstone course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course. Prerequisite: CST-410 or CST-424.

CST-452^{ΔΩ}: Senior Project II 2 credits

The second capstone course provides students the opportunity to implement and present the applied research project designed, planned, and started in the first capstone course. The capstone project is a culmination of the learning experiences while a student in the Computer Science program. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revision. This is a writing intensive course. Prerequisite: Successful completion of CST-451 with a grade of C or better.

CST-452HN^{Δ†}: Senior Project II 2 credits

The second capstone course provides students the opportunity to implement and present the applied research project designed, planned, and started in the first capstone course. The capstone project is a culmination of the learning experiences while a student in the Computer Science program. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revision. This is a writing intensive course. Prerequisite: Successful completion of CST-451 with a grade of C or better.

CST-461: Current Trends in Computer Science Lecture and Lab 4 credits

This course surveys current advances in computer science. Topics covered may include parallel computing, blockchain, distributed systems, cloud computing, embedded systems, cryptography, computational science, and new technologies. Lab activities will focus on hands-on projects with a variety of technologies, devices, and programming languages. Practicum/field experience hours: None. Current Trends in Computer Science Lecture and Lab. Prerequisite: CST-307, CST-315, CST-301.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CST-520: Design and Analysis of Algorithms 4 credits

The course covers the theoretical fundamentals of computing, and analysis of the inherent capabilities and limitations of computation. Topics include advanced techniques in formal algorithm analysis, classical and modern algorithms, P and NP, polynomial-time reduction, NP-completeness and NP-hardness. Prerequisite: DSC-510.

CST-530: Advanced Operating Systems 4 credits

This course covers essential concepts in the design and implementation of advanced modern operating systems. Focus areas may include distributed systems and computer networks, interprocess communication, distributed processing, multi-core processors, sharing and replication of data and files. Prerequisite: CST-520.

CST-540: Programming Languages 4 credits

This course focuses on theoretical models for advanced programming paradigms: functional, imperative, concurrent, and probabilistic programming. Various models of programming languages and type systems are discussed. Students learn to apply programming methodology, transformations, and logic. Prerequisite: DSC-510.

CST-550: Parallel Programming 4 credits

This course introduces programming models and languages for programming parallel platforms. Additional topics may include parallel and distributed platforms, parallel and distributed algorithms, message passing, shared memory, and parallel programming applications in a variety of domains. Prerequisite: CST-540.

CST-560: Research Methods in Computational Sciences 4 credits

This course prepares students for the research process in computational sciences, while developing an appreciation for the philosophy and ethics related to how research is conducted. Students learn how to design experiments, how to test the results using statistical methods, and communicate the findings. Prerequisite: DSC-510.

CST-570: Machine Learning for Computer Science 4 credits

This course covers fundamental techniques in statistical machine learning, focusing on computational methods for supervised and unsupervised data analysis. Topics may include classification, regression, dimensionality reduction, and clustering. Students will learn and apply a variety of training models and algorithms. Prerequisite: CST-560.

CST-580: Artificial Intelligence 4 credits

This course covers key areas of AI focusing on theoretical and practical approaches to designing intelligent systems. Central themes include search, neural networks, probabilistic modeling, and game theory. Students explore specific algorithms and applications in depth, using modern programming paradigms. Prerequisite: CST-570.

CST-590: Computer Science Capstone Project 4 credits

Students conceptualize, design, and present an innovative idea, process, or a product in the field of computer science. Projects synthesize and apply knowledge from previous courses and include a scientific report anchored in current theory and research. Prerequisite: CST-580.

Continuing Education (CTE)

EAD-5050TE: Education Law for K-12 School Administrators 3 credits

Upon completion of this course, students possess knowledge and understanding of the application of PreK-12 education law. Students explore laws and policies for guidance on decision making related to such issues as, student and teacher rights, discipline, special education requirements, social media, and negligence. This overview will assist students in upholding the law and safeguarding the school community.

EAD-5100TE: Education Finance for Current Practitioners 3 credits

This course examines K-12 education finance issues and practices that directly affect the operation of a school and local education agency (LEA). Educators will be exposed to the regulations encompassed in the Uniform System of Financial Records (USFR) and the implications of these regulations at the school site level. School finance topics related to education at the federal, state, and local levels will be examined. Educators will explore school budget and accounting principles, fiscal responsibility, resource allocation, basic administrative theories, processes and techniques, as well as discuss the major challenges facing them in the daily operation of local schools.

EAD-5130TE: Shaping School Culture for Current Practitioners 3 credits

This course emphasizes the critical role of the leader in creating and sustaining a positive school culture and shared vision. Given diverse settings, contexts and leadership situations, educators will explore how various leadership styles, philosophies and behaviors can promote or hinder the development of a quality learning culture and positive workplace conditions. Additionally, supervisory processes and strategies by which educational leaders can empower teacher self-efficacy and promote instructional improvement that enriches the outcomes for all students will be examined.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EAD-5200TE: Strengthening Curricular Programs for Continuous School Improvement **3 credits**

This course prepares educators to become effective educational leaders in the evaluation of school-wide curricular programs to promote continuous school improvement. Course content includes processes in planning, implementation, and the evaluation of programs and curriculum. Focus is placed on ensuring that curricular design, instructional strategies, and learning environments maximize learning and integrate appropriate technologies. Data-driven analysis is emphasized throughout.

EAD-5300TE: Improving Teacher Performance and Self-Efficacy **3 credits**

This course prepares educators to become effective building-level instructional leaders who are able to positively enrich teaching and learning experiences/outcomes through leadership practices that improve teacher performance, self-efficacy, and morale. Course topics promote the learning of strategies including cognitive coaching; collaborative learning/decision-making; creating a safe/supportive professional learning culture; and reflective practice. Educators will examine current policy and practice in the areas of teacher observation, evaluation, value-added student growth models, and teacher performance ratings.

EAD-5330TE: Developing and Empowering Instructional Leaders for Current Practitioners **3 credits**

This course prepares educators to employ leadership and mentoring strategies that promote the development of quality teachers into effective instructional leaders. Course topics promote the learning of distributed leadership practices and identifying and empowering instructional leaders within a faculty. Educators will be prepared to foster an understanding of leading the evaluation of assessment data, components of peer observation, and strategies to provide feedback to teachers relevant to instructional planning and delivery.

EAD-5350TE: Supervision for Instructional Improvement **3 credits**

This course prepares candidates to become effective building-level supervisors of instructional leaders. Emphasis is placed on improving instruction, teacher practices, and effective communication. Candidates will examine institutional change, school improvement, staff development, and teacher evaluation. Supervision techniques will be explored, including: mentoring and peer coaching, as well as clinical supervision. Special emphasis will be placed on the skills and strategies needed to develop learning organizations that build an appropriate curriculum, support instructional improvement, and incorporate best practices.

EAD-5360TE: Crisis Management in Schools for Current Practitioners **3 credits**

This course provides participants with the skills needed to prepare for different forms of emergencies in K-12 schools and to respond coherently. Topics are related to crisis response on a personal and classroom level and are geared towards helping K-12 personnel survive and assist during traumatic situations. Special emphasis is placed on: fire/weather drills, lockdowns, trauma, crisis response, emergency plans, and mandatory reporting laws. Incorporating district policy, ethics, and school law are also covered in relation to emergency situations.

EAD-5370TE: Leadership and Management in the Principalship **3 credits**

This course will explore critical issues facing school principals, including the challenge of attracting and retaining a quality work force, managing and allocating resources, innovative instructional leadership, creating community partnerships, and meeting the myriad of district, state and federal policies and laws. With a focus on all Professional Standards for Educational Leaders (PSEL), educators will holistically analyze a school's Continuous Improvement Plan (CIP) and focused action plans in various contexts. This analysis will solidify understanding of the important implications of managing school resources in order to meet operational needs and improve outcomes for all students.

ECE-5010TE: Foundations of Early Childhood **3 credits**

Practitioners survey the philosophical foundations upon which early childhood educational theories and practices are constructed. Current educational models, including the Montessori education model, are explored. Practitioners examine the application of educational philosophies and theories to the early childhood classroom and evaluate their contemporary usefulness in maximizing learning outcomes for young children. Practitioners will also examine the roles and expectations of early childhood educators and have the opportunity to reflect on and plan for their own professional development.

ECE-5200TE: Instruction, Assessment and Reporting in Early Childhood Education **3 credits**

Practitioners examine a variety of instructional strategies that encourage young children to build reading, writing, and oral language skills in meaningful ways. Emphasis is placed on integrating the creative arts throughout language arts curriculum that practitioners will develop, teach, and assess. Practitioners will also practice differentiation strategies that make instructional decision to address individual student needs.

ECE-5230TE: Instructional Methods: Language Arts and Creative Arts for Practitioners **3 credits**

Practitioners examine a variety of instructional strategies that encourage young children to build reading, writing, and oral language skills in meaningful ways. Emphasis is placed on integrating the creative arts throughout language arts curriculum that practitioners will develop, teach, and assess. Practitioners will also practice differentiation strategies to make instructional decisions to address individual student needs. Practicum/field experience hours: None. Prerequisite: none. Co-Requisite: none.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECE-5235TE: Early Childhood Instructional Methodologies: Mathematics **3 credits**

Teacher candidates research instructional methodologies for teaching mathematics to young children. Emphasis is placed on hands-on and inquiry- and manipulative-based learning in mathematics curriculum that teacher candidates will develop, teach, and assess. Candidates will also gather and analyze performance data to make instructional decisions. In addition, teacher candidates will build skills to integrate literacy, science, social studies, and the creative arts into mathematics lessons while strengthening mathematical connections at home. Practicum/field experience hours: None. Fingerprint clearance not required.

ECE-5400TE: Developing Language and Early Literacy in Young Children For Practitioners **3 credits**

This course examines the foundations for early language development in young children. Practitioners build knowledge regarding whole language, phonics, emergent literacy, and the integration of literary elements. Practitioners focus on the assessment of literacy abilities, meeting the literacy needs of small groups, and literacy in the classroom and at home.

ECE-5600TE: Engaging the Family and Cultural Awareness in Early Childhood **3 credits**

Practitioners examine the family, community, and cultural influences that affect young children. Practitioners identify factors that put young children at risk as well as resources to support various types of families and structures. Practitioners also identify ways to meet community needs while promoting cultural awareness and competence.

ECE-5660TE: Creating an Engaging Early Childhood Learning Environment **3 credits**

Practitioners use the guidance approach to create environments that support individual and collaborative learning, encourage positive social interaction, facilitate active engagement in learning, and promote self-motivation. Montessori classroom management philosophies are explored. Practitioners develop skills related to establishing and maintaining organized, safe, inclusive, respectful, challenging, and positive early childhood environments with rules and expectations that are clearly communicated. Practitioners also examine how to help students overcome challenging behavior and learn from mistakes.

ECH-5210TE: Early Literacy Development for Current Practitioners **3 credits**

This course addresses early language development and teaching strategies, supporting literacy development for those working with students from birth to age 8. The stages of oral and emergent language are addressed through language and literacy development. Application of phonemic and alphabetic principle skills is addressed through hands-on assignments. The course allows learners to demonstrate how an effective literacy environment can be developed.

ECS-5010TE: Foundational Studies in Early Childhood Special Education **3 credits**

This course places primary focus on the fundamental basis of the field of early childhood education and early childhood special education, Birth to Age 5/Pre-K to K to Age 8/Grade 3, including historical and philosophical foundations, current practices, ethics, models of teaching, and application in early childhood education/early childhood special education settings. Additionally, professional preparation requirements and professional development opportunities in the field are explored.

ECS-5550TE: Child Development Including Health, Safety, and Nutrition **3 credits**

This course explores child growth and development, including developmental milestones that must be met with regards to physical, cognitive, and social-emotional development. The course emphasizes health, safety, and nutrition with a focus on special health care needs for young children. Educators will use data to analyze the development of the whole child and consider best practices for family involvement.

ECS-5600TE: Child, Family, Cultural, Community Relationships, and Advocacy **3 credits**

This course examines historical foundations, theories, and models of child development, including family characteristics, diversity, multicultural factors, and community relationships. Educators will identify community organizations that support children with exceptionalities and their families. In addition, they will also identify ways to use those resources to advocate for children and their families.

ECS-5700TE: Language & Communication Development in Early Childhood/Special Education **3 credits**

This course examines the foundations for early language development for children, from Birth to Age 8/Grade 3. Focus is placed on the use of technology with receptive and expressive language, early literacy development, and communication methods in early childhood education/early childhood special education.

EDU-5050TE: Influences of Family and Community Engagement For Current Practitioners **3 credits**

Educators will explore how issues related to family relationships and community environments interplay to influence classroom dynamics. Special attention is given to family interaction patterns, including communication processes, power relationships, open and closed family systems, parent-child relationships, and conflict resolution processes. Emphasis is placed on frameworks, materials, and strategies for building relationships with family and community members as well as the development of successful family and community involvement in the classroom. Practicum/field experience hours: None. Fingerprint clearance not required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EDU-5220TE: K12 Curriculum Design and Development For Current Practitioners **3 credits**

This course offers an overview of the factors, principles, and elements of curriculum development in the elementary and secondary school. Emphasis is on philosophical and psychological influences in education, as well as designing and evaluating curricular patterns for urban schools.

EDU-5370TE: Leadership and Instructional Coaching for Current Practitioners **3 credits**

Educators will learn and apply coaching techniques in school and community settings. Emphasis is placed on improving teacher practices, school culture, and effective communication. Educators will use cognitive coaching and teacher leadership skills.

EDU-5510TE: Differentiated Instruction for Current Practitioners **3 credits**

Educators will use data to differentiate curriculum, instruction, and assessments to foster learning for all students. Focus will be on patterns of learning and development, using technology to differentiate instruction, and developing an engaging classroom environment.

EDU-5540TE: Methods of Instruction and Assessment for Current Practitioners **3 credits**

In this course, educators will develop skills in aligning objectives, instruction, and assessments. Special attention is given to differentiating curriculum for diverse students and using assessment data to guide instruction. In addition, collaboration with peers and colleagues will be used to achieve instructional goals through action planning. Review of current trends in instruction and assessment are presented to guide instructional decisions with a special focus on the needs of diverse students.

ELM-5050TE: Foundational Literacy Skills and Phonics For Current Practitioners **3 credits**

Candidates will examine tools and strategies for effective research-based phonics instruction. Topics include assessment in and instruction of phonemes, phonemic awareness, graphemes, phonics, spelling, and word recognition for reading and writing. The relation of deficits in phonemic awareness, decoding, spelling, and word recognition to reading disabilities will also be explored.

ELM-5100TE: Creating and Managing Engaging Learning Environments **3 credits**

Educators examine how to create environments that support individual and collaborative learning, encourage positive social interaction, active engagement in learning, and self-motivation. Teacher candidates build foundational knowledge regarding the importance of establishing and maintaining positive collaborative relationships with families, school colleagues, and agencies in the larger community to promote the intellectual, social, emotional, physical growth, and well-being of children.

ELM-5500TE: Methods of Teaching & Integrating Social Studies & the Arts **3 credits**

Educators examine a variety of instructional strategies to encourage learners to develop deep understanding of the major concepts and modes of inquiry from the integrated study of history, geography, the social sciences and other related areas. Educators build foundational knowledge on promoting elementary students' abilities to make informed decisions as citizens of a culturally diverse democratic society and interdependent world. Educators integrate the content, functions and achievements of the performing and visual arts as primary media for communication, inquiry and engagement among elementary students.

ELM-5600TE: Methods and Strategies of Teaching Elementary Mathematics **3 credits**

Educators examine a variety of instructional strategies to encourage learners to develop deep understanding of the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability and to build skills to apply knowledge in meaningful ways. Educators build foundational knowledge on engaging problem solving, reasoning and proof, communication, connections and representations to help students successfully apply their developing skills to many different situations, materials, and ideas.

ELM-5700TE: Methods of Teaching and Integrating Science and Health for Practitioners **3 credits**

Elementary educators examine fundamental concepts of physical, life, earth/space sciences and health education. Within this course, educators will build foundational knowledge on a variety of age-appropriate inquiry-based instructional strategies to teach science, build student understanding of personal and social applications, to convey the nature of science and student development for the practice of skills that contribute to good health.

ELM-5800TE: Methods of Teaching Elementary English Language Arts **3 credits**

Educators examine a variety of instructional strategies to encourage learners to develop deep understanding of reading, writing, and oral language and their connections, and to build skills to apply knowledge in meaningful ways. Educators build foundational knowledge on how to use the concepts from reading, language, and child development to teach reading, writing, speaking, viewing, listening, and thinking skills, and to help students successfully apply their developing skills to many different situations, materials, and ideas.

POS-5300TE: Arizona and Federal Government for Current Practitioners **1 credits**

This course is a survey of Arizona history and government as well as of American government. It meets the teacher certification requirement for the study of Arizona government and American government.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

POS-5305TE: US Constitution for Current Practitioners 1 credits

This course is a survey US Constitution and American government. It meets the teacher certification requirement for the study of US Constitution and American government.

POS-5400TE: AZ Constitution for Current Practitioners 1 credits

This course is a survey of Arizona history and government. It meets the teacher certification requirement for the study of Arizona government.

REA-5000TE: Foundations in Reading For Current Practitioners 3 credits

Educators survey the theoretical and evidence-based foundations of reading and writing processes and instruction. This survey includes an exploration of the historical foundations of reading through current reading and writing development, processes, and components. Educators are introduced to ethical and professional roles of reading specialists and literacy coaches.

REA-5100TE: Survey of Reading Assessments For Current Practitioners 3 credits

Educators survey a variety of reading assessment tools and related practices. This survey prepares the reading specialist/literacy coach to plan and evaluate effective reading and writing instruction that optimizes student learning. In addition, educators develop effective communication techniques.

REA-5200TE: Introductory Instructional Methods for Elementary Reading and Writing 3 credits

Educators survey instructional approaches and materials that support elementary student learning in reading and writing. This survey prepares elementary educators to design an integrated, comprehensive, and balanced literacy curriculum.

REA-5250TE: Introductory Instructional Methods for Secondary Reading and Writing 3 credits

Educators survey instructional approaches and materials that support middle and secondary student learning in reading and writing. This survey prepares middle and secondary educators to design an integrated, comprehensive, and balanced literacy curriculum.

REA-5400TE: Advanced Studies in Elementary Content Reading and Writing 3 credits

Educators engage in advanced studies of instructional approaches and materials at the building and district level that support student learning in reading and writing across content areas. From this advanced study, educators work with their colleagues to design an integrated, comprehensive, and balanced literacy curriculum.

REA-5450TE: Advanced Studies in Methods for Secondary Content Reading and Writing 3 credits

Educators engage in advanced studies of instructional approaches and materials at the building and district level that support secondary students' learning in reading and writing across content areas. From this advanced study, educators work with their colleagues to design an integrated, comprehensive, and balanced literacy curriculum.

REA-5500TE: Literate Environments for Current Practitioners 3 credits

Educators create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments.

REA-5700TE: Elementary Education Reading Practicum for Current Practitioners 3 credits

The practicum experience requires educators to implement literacy intervention instruction that is designed to meet the specific needs of Elementary students in grades 1-8 and engage in research and analysis to support the compilation and creation of a Literacy Work Sample (LWS). In addition, the candidates coach and provide support to other teachers to think reflectively about improving student learning and implementing various instructional practices. Practicum/field experience hours: 75. Fingerprint clearance required.

REA-5800TE: Secondary Education Reading Practicum for Current Practitioners 3 credits

The practicum experience requires educators to implement literacy intervention instruction that is designed to meet the specific needs of Secondary students in grades 6-12 and engage in research and analysis to support the compilation and creation of a Literacy Work Sample (LWS). In addition, the candidates coach and provide support to other teachers to think reflectively about improving student learning and implementing various instructional practices. This course requires access to a PK-12 school for practicum experiences. Practicum/field experience hours: 75. Fingerprint clearance required. Practicum/field experience hours: 75. Fingerprint clearance required.

REA-5850TE: Children's Literature for Current Practitioners 3 credits

Educators will evaluate types and purposes of literature based on the developmental literacy needs of elementary-aged children. Particular emphasis is dedicated to the various genres that exist within the literature spectrum and how to utilize the different genres to meet specific instructional needs, including the use of digital text, to meet literacy goals.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SEC-5060TE: Early Adolescent and Adolescent Psychology for Current Practitioners 3 credits

This course is a survey of early adolescent and adolescent growth and development, recognizing that patterns of learning and development vary individually within and across the cognitive, social/emotional, and physical areas. This overview of the seminal concepts, principles, theories, and research related to development of adolescents will allow educators to build foundational knowledge for constructing learning opportunities that support individual students' development, acquisition of knowledge, and motivation.

SEC-5100TE: Creating and Managing Engaging Secondary Learning Environments 3 credits

This course is designed to allow the educator the opportunity to learn techniques involved in the successful engagement and management of a learning environment. Major emphasis is placed to the establishment of a realistic discipline plan to manage student behavior, as well as engagement and management techniques and strategies to maximize instructional time, classroom procedures, and physical space.

SEC-5150TE: Assessment and Evaluation for Middle and High School Teachers 3 credits

Educators will investigate multiple methods of assessment that support student engagement, monitoring student progress, and guiding decision-making. Educators will build foundational knowledge regarding formal and informal assessment strategies for planning, evaluating, and strengthening instruction to promote continuous intellectual, social, emotional, and physical development of each student.

SEC-5250TE: Methods and Strategies for Middle and High School Teachers 3 credits

This course is designed to foster application of proven teaching and learning methodologies for both instructor and student in order to make appropriate and data-driven decisions about all aspects of teaching. Major emphasis is focused on planning instructional objectives and lessons, assessing objectives, and developing teaching methodology that encourages problem solving, active participation, and assessment.

SEC-5400TE: Adolescent Literacy for Current Practitioners 3 credits

This course is designed to develop a broad range of research-based reading methodologies to enhance the learning strategies of middle and secondary school students. Major emphasis is placed on the use of reading strategies for culturally and socially diverse classrooms, including the use of literacy-based instruction in all content areas and understanding, evaluating, and promoting effective pedagogy in adolescent literacy. The development and use of integrated and thematic approaches of instruction are addressed.

SEC-5800TE: Curriculum Design for Middle and High School Teachers 3 credits

This course focuses on the principles and practices involved in curriculum design. Various orientations to curriculum development and assessment are investigated and elements of model curricula are examined. Emphasis is placed on understanding current structures and trends in high schools, as well as critical issues, as these relate to curriculum and assessment. Course content is strategically planned to enable participants to make informed curriculum decisions to meet the needs of a diverse student population. Also emphasized is the alignment of educational objectives to standards and building both formative and summative assessments, including rubrics to analyze student learning. During the course, educators will develop their own curriculum unit.

SPD-5000TE: Survey of Special Populations: Mild to Moderate Disabilities 3 credits

Educators are introduced to the educational needs of students with mild to moderate disabilities and their families, including the definitions, characteristics, prevalence, causes and educational approaches to these disabilities and disorders. They will identify cognitive, linguistic, social and emotional patterns of learning and development for students with mild to moderate disabilities. Concluding the course, educators will survey the special education process involving the application of various laws and regulations.

SPD-5030TE: Foundations of Gifted Education for Current Practitioners 3 credits

In this course, educators explore the historical foundations and evolution of gifted education, including definitions of giftedness. Educators compare and contrast perspectives of giftedness, and describe characteristics of gifted, talented, and creative students and their implications for academic instruction. Emphasis is placed on identifying major contributors and their contributions to the field of gifted education, as well as major theories of intelligence and their relevance to gifted education.

SPD-5050TE: Foundations in Autism Spectrum Disorder 3 credits

This course orients special educators to the theoretical foundations of autism spectrum disorders (ASD). Special educators will focus on the exceptional needs of students with ASD and teacher's responsibilities to determining eligibility and assessment. This course also examines diagnoses and implications in the school environment.

SPD-5100TE: Professional, Ethical, and Legal Practices and Policies in Special Ed 3 credits

Educators survey professional ethical principles, professional practice standards, law and regulations that guide special educators. Educators build upon the foundational knowledge to understand the multiple roles and complex situations of professional practice that require attention to a variety of legal, professional, and ethical issues.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-5130TE: Instructional Methods in Gifted Education for Current Practitioners 3 credits

This course outlines instructional and managerial techniques used to address the individual learning needs, strengths, styles, and preferences of gifted, talented, and creative students in K-12 classrooms. Educators explore the design, delivery, and implementation of differentiated curriculum and instruction for gifted learners. Emphasis is placed on differentiation strategies that improve student achievement through use of instructional strategies targeting large groups, small groups, and individuals.

SPD-5150TE: Assessing Instructional Methods for Autism Spectrum Disorders 3 credits

The focus of this course is to provide methods for improvement of instruction, based on assessment for students with autism spectrum disorders (ASD). Special educators will focus on instructional planning, adaptive practices, and intervention strategies established through assessment analysis.

SPD-5200TE: Collaborations and Communications in Special Education 3 credits

Educators survey theories and models for effective collaboration and communication with students with exceptionalities, colleagues, other school professionals, families and community members. In addition, educators will apply collaboration and communication theories and models, incorporating technology, across a wide range of contexts to ensure active involvement in the education process for students with exceptionalities.

SPD-5230TE: Creativity and Talent Development in Gifted Education for Practitioners 3 credits

In this course, educators study the theoretical and practical aspects of creativity and explore how it can be developed in gifted, talented, and creative students. Educators analyze definitions of creativity and learn techniques for stimulating creative thinking as well as strategies for adapting existing curricula to develop creative thinking abilities in students. Emphasis is placed on the assessment of creative thinking, methods for enhancing personal creative abilities, and techniques for examining the creative process.

SPD-5250TE: Applied Behavior Analysis and Autism Spectrum Disorder 3 credits

The focus of this course is to provide special educators with advanced knowledge of applied behavior analysis in regards to accommodations for students with autism spectrum disorder. Special educators will focus on assessing individual needs, tools for intervention, and evaluating strategies and student progress.

SPD-5300TE: Assessment and Eligibility in Special Education: Mild to Moderate 3 credits

Educators will investigate diagnostic and assessment tools. Educators will build foundational knowledge regarding the use of multiple methods of assessment and data-sources for diagnostic and educational decisions for individuals with mild to moderate disabilities.

SPD-5400TE: Managing Learning Environments for Special Ed Mild to Moderate 3 credits

Educators examine how to create safe, inclusive, culturally responsive learning environments through collaboration with colleagues so that individuals with exceptionalities become active and effective learners and develop emotional well-being, positive social interactions, and self-determination. Educators focus on behavior management, functional behavior assessments, adaptive behaviors, positive behavior interventions and supports, and behavior improvement plans.

SPD-5500TE: Instructional and Transitional Planning for Students with Mild to Moderate 3 credits

Educators will examine how instructional planning advances the learning of students with mild to moderate disabilities by drawing upon knowledge of central concepts, structures of the discipline, and tools of inquiry of the academic subject-matter content areas and a variety of specialized curricula. Educators build foundational knowledge about individualized education plans and transition plans for a wide range of settings and different learning experiences. Educators engage in organizing knowledge, integrating cross-disciplinary skills, and developing meaningful individualized learning progressions through drafting an IEP.

SPD-5530TE: Assessing and Identifying Gifted Learners for Current Practitioners 3 credits

This course focuses on developing skills to measure intelligence, achievement, creativity, and other dimensions of giftedness. Educators evaluate identification procedures and expanding the dimensions of gifted education to include new directions for identification and programming. Emphasis is placed on reviewing the principles of assessment and evaluation that apply to the education of gifted, talented, and creative students, including national gifted standards, testing, performance-based assessments, and other methods of observations and student evaluations in K-12 classrooms.

SPD-5600TE: Enhancing Communication Skills for Mild to Moderate Disabilities 3 credits

Educators examine typical and atypical language development, and associated disabilities and disorders. Educators investigate the use of augmentative and alternative assistive technology, modifications and accommodations to enhance the communication skills of students with mild to moderate disabilities.

SPD-5630TE: Gifted Programming and Environments for Current Practitioners 3 credits

This course explores the development of effective programs in gifted education. Educators evaluate gifted education programming related to gifted curriculum models, focus on the development of a well-founded rationale for gifted programming, compare appropriate delivery models for gifted programs, and identify comprehensive services for gifted, talented, and creative students. Emphasis is placed on evaluating and modifying learning environments and classroom climates to assist students who are gifted, talented, and creative to adapt to their environment, as well as advocating for gifted programs.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-5650TE: Effective Communication and Assistive Tech for Autism Spectrum Disorders **3 credits**

This course explores functional communication training and specific strategies to promote effective communication behaviors or skills of students with ASD. In addition, educators will survey assistive technology in relation to enhancing communication of students with autism spectrum disorders.

SPD-5700TE: Methods of Teaching Math to Students with Mild to Moderate Disabilities **3 credits**

Educators build foundational knowledge on a variety of research-based instructional strategies to encourage individuals with mild to moderate disabilities to develop understandings and connections within content areas and to build skills to apply knowledge in meaningful ways. From this foundational knowledge, teacher candidates select, adapt and use research-based instructional strategies and interventions in academic and specialized curricula to advance the learning of students with mild to moderate disabilities with focused attention upon mathematics.

SPD-5800TE: Methods of Teaching English Language Arts to Students with Mild to Moderate **3 credits**

Educators select, adapt, and use research-based instructional strategies and interventions in academic and specialized curricula to individualize meaningful and challenging learning for students with mild to moderate disabilities, with an emphasis on literacy.

SPD-5850TE: Educational Psychology for Special Education for Current Practitioners **3 credits**

This course provides a thematically arranged study of the theories and principles of psychology that have influenced instructional practices. Behavioral and cognitive approaches to learning, motivation, and instruction are explored.

SPD-5940TE: Practicum II: Gifted Education **3 credits**

This practicum course engages teachers in a field-based action research project. Each participant assesses underrepresented students exhibiting gifted characteristics, then creates and implements individualized one-on-one action plans with the students based on their assessment results. Practicum/field experience hours: 60. Fingerprint clearance required.

SPD-5950TE: Methods of Educating Learners with Diverse Needs **3 credits**

Emphasis is placed on definitions, etiology, characteristics, and prevalence of various exceptionalities; laws and litigation protecting the rights of students with special needs and their families; current issues affecting persons with special needs; social perceptions, assessment, inclusion, and transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the general classroom.

TEC-5160TE: Instructional Technology for Educators **3 credits**

This course introduces students to ISTE·S and ISTE·T standards for students and teachers; digital citizenship and responsibility; legal and ethical use guidelines; and transitioning instruction to integrate technology. Technology dispositions, expectations, and guidelines are emphasized for being a 21st century educator. Educators apply an understanding of design principles in visual communication theory and incorporate multiple intelligences and constructivist theories into an interactive environment. In addition, attention is given to instructional technology tools and resources.

TEC-5200TE: Digital Literacy and 21st Century Learning for Current Practitioners **3 credits**

This course focuses on the organization and integration of media in school curricula. Educators identify instructional purposes and define roles for technology and media in 21st century learning and teaching. An emphasis is placed on the processes for selecting and implementing meaningful technologies, electronic learning resources, and the development of digital literacies in teaching and learning.

TSL-5320TE: Foundations of Instruction for English Language Learners **3 credits**

This course provides the historical, sociological, political, and legal foundations of policies and instructional programs for English Language Learners (ELLs) in the United States. Emphasis will be placed on understanding, comparing, and evaluating current language models and prototypes. This course will also introduce educators to primary theories of language learning and current methodologies and practices.

TSL-5410TE: Linguistics for Current Practitioners **3 credits**

In this course, educators become familiar with the fundamentals of linguistics. Emphasis will be placed on phonology, morphology, syntax, semantics, pragmatics, sociolinguistics, historical linguistics, and first and second language acquisition theories. Educators will synthesize research-based methods of incorporating linguistic principles into their teaching practice.

TSL-5500TE: School, Community, and Family Culture for Current Practitioners **3 credits**

In this course educators will explore school, community, and family culture. Emphasis will be placed on the major goals, principles, and concepts of multicultural education, including multiple perspectives in culture and history as well as understanding cultural and individual differences in teaching and learning. Research is utilized to investigate the social, community, cultural, and familial contexts that influence learning and development.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

TSL-5520TE: Literacy in Bilingual Settings for Current Practitioner 3 credits

In this course, educators will examine approaches to developing literacy in second and native language P-12 schools. Emphasis will be placed on techniques for developing listening, speaking, reading, and writing skills; developing language and literacy through the content areas; using children's and young adult multicultural literature; and assessing students' literacy development in the second and native language. Strategies to develop biliteracy in dual language programs will also be discussed.

TSL-5580TE: ELL and Bilingual Curriculum and Methods of Instruction 3 credits

In this course, educators will review curricula and methods appropriate for the teaching of subject areas in ELL and dual language educational settings. Emphasis is placed on linguistic, cognitive, developmental, and socio-cultural considerations in the design of culturally responsive curricula; exploration of culturally responsive instructional methods and materials for use in language arts and content areas; and critique of current commercially prepared products.

TSL-5650TE: ELL and Bilingual Assessment for Current Practitioners 3 credits

In this course, educators will explore the principles of evaluating and structuring assessments. Educators will design rubrics and examine assessment for the purposes of identification, placement, and instructional delivery. Emphasis will be placed on learning ways to integrate assessment procedures into any curriculum, and designing assessment tasks that allow for improved learning.

TSL-5670TE: Methods of Teaching and Evaluating Special Needs ELLs 3 credits

In this course, educators will be introduced to the field of bilingual and English language learners in special education. They will engage in the study of the nature, psycho-social and emotional needs of bilingual individuals and English learners with disabilities. Emphasis will be given to the research in bilingual and English language learner education in relation to the complexity of the over- and-under-representation of bilingual students in special education, issues in relation to differentiating cultural and linguistic-related learning variations from special education issues, and instructional implications.

TSL-5900TE: TESOL or BLE Practicum 3 credits

In this course educators have direct participation and experience with ELLs or bilingual/dual language students at their chosen level of instruction, within a P-12 educational setting. Educators will practice teaching and management skills, conduct assessments, and learn to communicate effectively with students, parents, colleagues, administrators, and the larger community. Practicum/field experience hours: 60. Fingerprint clearance required.

CWV-101^{Ω♦}: Christian Worldview 4 credits

A worldview acts like glasses through which one views the world. In this course, students explore the big questions that make up a worldview, questions like "Why are we here?" and "What is my purpose?" Students examine how Christians answer these questions and work on exploring their own worldviews, as well as learning how worldview influences one's perceptions, decision making, and everyday life.

CWV-101XV: Christian Worldview 4 credits

A worldview acts like glasses through which one views the world. In this course, students explore the big questions that make up a worldview, questions like "Why are we here?" and "What is my purpose?" Students examine how Christians answer these questions and work on exploring their own worldviews, as well as learning how worldview influences one's perceptions, decision making, and everyday life.

CWV-106HN^{Ω♦}: Christianity: Story, Theology and Mission 4 credits

This honors course is an introduction to the Christian worldview and how it shapes beliefs, identity, values, ethics, and cultural awareness. The focus of this honors course is to engage students in discourse about what it means to think and live as a follower of Christ within a historical, global, and social context. Prerequisite: Acceptance into the honors program.

CWV-301^{Ω♦}: Christian Worldview 4 credits

A worldview acts like glasses through which one views the world. In this course, students explore the big questions that make up a worldview, questions like "Why are we here?" and "What is my purpose?" Students examine how Christians answer these questions and work on exploring their own worldviews, as well as learning how worldview influences one's perceptions, decision making, and everyday life.

CWV-316: Christian Life: The Way of Jesus 4 credits

This course is an advanced exploration of the Christian worldview that shows how the Christian life provides true identity, meaning, peace, and joy. Students learn how to authentically follow Jesus in a way that will transform their lives through intentional practices and life together in community. Focus is also placed on human value, human dignity, and ethical reasoning in academic studies and careers. Prerequisite: CWV-101, CWV-301, or CWV-106HN.

Cybersecurity (CYB)

Christian Worldview (CWV)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

CYB-201: Algorithms and Discrete Mathematics for Cybersecurity 4 credits

This is an introductory course in algorithm analysis with applications in discrete mathematics. Topics covered include complexity analysis, finite logic, Boolean algebra, sets, functions, counting, finite state machines, automata, regular expressions, and cryptography. Learners will determine how variability affects outcomes and assess the suitability of an algorithm to solve a given problem. Practicum/field experience hours: None. Algorithms and Discrete Mathematics for Cybersecurity. Prerequisites: MAT-154 and CST-111.

CYB-220: Cyberlaw and Privacy in a Digital Age 4 credits

The Internet Age has introduced myriad legal challenges on a global level. Students will explore the emerging specialty within law that is cyber law. Topics will expose the reality that our legal system has evolved in a physical and visual world, but cyber space is largely invisible and virtual. Students will learn that past legal decisions or legal precedence has been important in our system and reasoning by analogy has been used extensively. In many cases the laws applied in the physical realm do not translate equally well into cyber space. This course will discuss the importance of this area introduce legal issues that need to be addressed.

CYB-320: Malware Analysis 4 credits

In this course students will explore the world of malware through meticulous analysis and binary reverse engineering techniques. This is a skill-based course with hands on labs that focus on both static and dynamic malicious code analysis. Upon successful completion of this course, students will be able to apply the tools and methodologies to safely perform analysis on common malware samples in a control environment. Practicum/field experience hours: None. Malware Analysis. Prerequisite: ITT-210 & ITT-307.

CYB-350: Social Aspects of Cybersecurity 4 credits

This course explores how end users can pose a threat to the security of an organization by falling victim to even simple traps. Students will learn that human manipulation creates a whole school of cybercrime opportunities such as phishing, “watering hole attacks” and other social engineering tactics. These threats are directed to the human psyche - not sophisticated malware or technical vulnerabilities, but rather the psychology and behavior of people. Students will see that a malicious actor – or “hacker” - need not be involved; an uneducated or careless employee or an unwieldy procedure can result in sensitive information leaking and potentially falling into the hands of an attacker. Prerequisite: PSY-102.

CYB-420♦: Global Perspectives on Cyberwarfare 4 credits

This course covers an analysis of Cyberwarfare in the 21st Century and beyond. Cyberspace is a complex environment that controls every aspect of a country’s Economy, Communication, and Infrastructure. This course will examine cyber warfare from a case-study perspective, applying the battlespace doctrine developed by military cyber operations teams. At the conclusion of this course students will have a fundamental understanding of the cyberspace threatscape, ethical challenges, and be able to strategize and implement cyberwarfare operations. Prerequisite: ITT-340 or SWE-310.

CYB-420HN[‡]: Global Perspectives on Cyberwarfare 4 credits

This course covers an analysis of Cyberwarfare in the 21st Century and beyond. Cyberspace is a complex environment that controls every aspect of a country’s Economy, Communication, and Infrastructure. This course will examine cyber warfare from a case-study perspective, applying the battlespace doctrine developed by military cyber operations teams. At the conclusion of this course students will have a fundamental understanding of the cyberspace threatscape, ethical challenges, and be able to strategize and implement cyberwarfare operations. Practicum/field experience hours: None. Global Perspectives on Cyberwarfare. Prerequisite: PSY-102.

CYB-505: Cyber Warfare and Applications 4 credits

With a brief introduction to cybercrime and cybersecurity, this course will provide students with an overview of the various attacks and the countermeasures organizations can use to defend themselves. Exploring concepts such as defense-in-depth, layered security, vulnerability assessments, risk management, governance and compliance, and encryption; students will become familiar with prevention and protection theories, best practices, and strategies to securing corporate data (intellectual property). This course will conclude with an exploration of the various hacker psychologies and the differences between black-hat, grey-hat, and white-hat (Hackers with Halos) hackers. Prerequisite: UNV-504 or UNV-507.

CYB-515: Enterprise Security Infrastructure Design 4 credits

This course introduces enterprise infrastructure design; including hardware, software, policies, and business processes. Emphasis is placed on integrating security solutions and theories in alignment with business objectives to achieve sustainability, reliability, and availability while deterring threats from cyber-attacks. This course also introduces students to the NIST Cybersecurity Framework, providing a foundation to formulating a strategy for cybersecurity program design. Prerequisite: CYB-505.

[‡] Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

CYB-525: Technology Implementation of Security Solutions 4 credits

This course examines the tools and technologies used to secure an organization's intellectual property. Students will consider encryption, hardware security, software vulnerabilities, remote access technologies, and layered security defense strategies in the development of secure architectures. A technology-focused course, students will provide effective solutions around firewalls, networking, server security, database and website protocols, and VPN configurations. Prerequisite: CYB-505.

CYB-535: Policy Management for Security Solutions 4 credits

This course introduces a policy perspective on security design. Students will consider cyber security frameworks, policies, cyber law, regulations, and standards in the configuration, development, and design of an enterprise policy infrastructure. In addition, students will examine the impact of policy implementation on enterprise systems and personnel management.

CYB-610: Penetration Testing and Risk Management 4 credits

This intensive hands-on course will provide with students the experience of working with various cybersecurity technologies and techniques that hackers and malicious actors use to scan, identify, and exploit vulnerabilities in an organization. Students will also formulate strategies of protection from such threats by identifying risks, countermeasures, security policies, frameworks, and best practices to align and enhance an organization's security posture through the development of a risk management plan. Prerequisites: CYB-515 and CYB-525.

CYB-630: Enterprise Cyber Law and Compliance Strategies 4 credits

This course explores the human and enterprise aspects of cybersecurity management. From information security awareness to strategic planning; students will begin with the examination of the ideologies behind cybercrime, where attacks come from and why, followed by implementation techniques to best align cybersecurity applications with business objectives. This course provides a look at the strategies security professionals use to identify the attack vectors and plan accordingly to secure information systems using various industry compliances, regulations, and standards to design and implement cost effective controls, policies, and training to implement defense-in-depth techniques. This course ends with an impact analysis of when security measures fail, which includes legal elements and liability and ethical issues relating to forensic investigations. Prerequisite: CYB-535.

CYB-650: Innovation in Security Frameworks 4 credits

This course reinforces the significance, use, and deployment of security frameworks from a small-to-medium sized business (SMB) perspective to increase visibility, reduce risk from malicious activity, improve security posture, and enhance infrastructure to secure a company's intellectual property. Using various controls, policies, best practices, and implementation guides, students will establish a security framework for an organization that secures and aligns with an appropriate regulation (e.g., PCI DSS, HIPAA, SOX, GLBA). Prerequisite: CYB-630.

CYB-690: Cybersecurity Program Development 4 credits

This course culminates the entire program by requiring students to develop a comprehensive cybersecurity program. Evaluating the legal and ethical challenges; incorporating the policies, frameworks, and methodologies; and identifying the hardware, software, and application requirements to secure an organization's intellectual property, customer data, and resources. Students will apply managerial and leadership skills to develop and communicate an effective cybersecurity program. Prerequisite: CYB-650.

Dance (DAN)

DAN-100♦: Introduction to Ballet Technique 1 credits

This course is an introduction to the techniques of the classical ballet, including alignment, positions, port de bras, and allegro combinations. It includes fundamental concepts, skills, movement vocabulary, and artistic expression specific to ballet.

DAN-101♦: Introduction to Jazz Technique 1 credits

This course is an introduction to the style, technique, and rhythmic structures of jazz dance with emphasis on increasing movement capabilities and personal expression. It includes fundamental concepts, skills, movement vocabulary, and artistic expression specific to jazz.

DAN-120♦: Introduction to Modern Technique 1 credits

This course is an introduction to the movement techniques of modern dance. It includes fundamental concepts, skills, movement vocabulary, and artistic expression specific to modern dance.

DAN-130A♦: Dance Ensemble I 0.5 credits

This course is designed to prepare the student for a dance concert production in a theatrical setting. Through the rehearsal process and culminating performances, students gain dance proficiency by working in a range of styles and choreographic approaches. Students audition choreography and may be cast as dancers, understudies, stage managers, and production assistants. Prerequisite: Audition.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DAN-130B♦: Dance Ensemble I 0.5 credits

This course is designed to prepare the student for a dance concert production in a theatrical setting. Through the rehearsal process and culminating performances, students gain dance proficiency by working in a range of styles and choreographic approaches. Students audition choreography and may be cast as dancers, understudies, stage managers, and production assistants. Prerequisite: Audition.

DAN-180A♦: Elementary Dance Tour 0 credits

This course is designed to prepare the student for the GCU Elementary Dance Tour, a multi-media production composed through collaboration by faculty and students. Topics include choreography, dramatic dialogue, elementary teaching methods, technical production, and artistic expression in a range of different dance styles. Participation is determined by audition.

DAN-180B♦: Elementary Dance Tour 0 credits

This course is designed to prepare the student for the GCU Elementary Dance Tour, a multi-media production composed through collaboration by faculty and students. Topics include choreography, dramatic dialogue, elementary teaching methods, technical production, and artistic expression in a range of different dance styles. Participation is determined by audition.

DAN-200♦: Somatics for the Dancer 2 credits

This course is a study of somatic practices in dance. Students explore and discuss issues related to one body practice. Topics include body awareness, alignment, injury prevention, and movement observation.

DAN-200HN♦: Somatics for the Dancer 2 credits

This course is a study of somatic practices in dance. Students explore and discuss issues related to one body practice. Topics include body awareness, alignment, injury prevention, and movement observation.

DAN-210♦: Improvisation for Dance 1 credits

This course focuses on creating and developing movement through dance improvisation in solos, duets, and groups. Contact improvisation and partnering, the uses of improvisation in choreography and performance, and the creative process are explored. Students are guided toward finding their own artistic voice through movement, discussion, and writing.

DAN-250♦: Ballet Technique II 1 credits

This technique course is designed to increase skill in classical ballet. It includes intermediate concepts, skills, movement vocabulary, and artistic expression specific to ballet. Prerequisite: DAN-100.

DAN-260♦: Jazz Technique II 1 credits

This course is a refinement of beginning skills, with an emphasis on development of technical abilities and performance qualities. It focuses on intermediate concepts, skills, movement vocabulary, and artistic expression specific to jazz. Prerequisite: DAN-101.

DAN-270♦: Modern Technique II 1 credits

This course is a refinement of beginning skills with an emphasis on development of technical abilities and performance qualities. It includes intermediate concepts, skills, movement vocabulary, and artistic expression specific to modern dance. Prerequisite: DAN-120.

DAN-280A♦: Dance Ensemble II 0.5 credits

This course is designed to prepare the student for a dance concert production in a theatrical setting. Through the rehearsal process and culminating performances, students gain dance proficiency by working in a range of styles and choreographic approaches. Students audition choreography and may be cast as dancers, understudies, stage managers, and production assistants.

DAN-280B♦: Dance Ensemble II 0.5 credits

This course is designed to prepare the student for a dance concert production in a theatrical setting. Through the rehearsal process and culminating performances, students gain dance proficiency by working in a range of styles and choreographic approaches. Students audition choreography and may be cast as dancers, understudies, stage managers, and production assistants.

DAN-300♦: Alignment and Pilates for Dance 2 credits

This course addresses alignment for dancers, using Pilates mat exercises. The course addresses how breath, strength, and coordination may facilitate greater ease and efficiency in movement.

DAN-310♦: Technology for Dance Educators 3 credits

Students study and utilize a variety of dance technologies, such as computer software, hardware, networking, multimedia, interactive media, and the Internet in order to foster inquiry, collaboration, and interaction in the classroom in order to meet the needs of a diverse student population.

DAN-312♦: Vernacular Dance: Tap I 1 credits

This course is an introduction to the style, technique, and rhythmic structures of tap dance with emphasis on increasing movement capabilities and personal expression. It includes fundamental concepts, skills, movement vocabulary, and artistic expression specific to tap. Students will explore tap dance through historical, social, and improvisational contexts. This course is available for non-majors.

DAN-313♦: Vernacular Dance: Urban & Hip Hop I 1 credits

This course is an introduction to the style, technique, and rhythmic structures of urban dance. Students will explore street dance styles with emphasis on increasing movement capabilities and personal expression. Development of proficiency includes fundamental concepts, skills, movement vocabulary, and artistic expression specific to Urban dance. Students will explore urban dance through historical, social, aesthetic, and improvisational contexts as well as most current forms found in popular urban culture. This course is available for non-majors.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DAN-315^Δ: Dance History I 4 credits

This writing intensive course is a study of the histories and aesthetic systems of selected world dance traditions emphasizing interconnections between aesthetic practice, religious and social needs, and the impact of cultural convergence on dance.

DAN-320[♦]: Technology for Dance Educators 2 credits

Students study and utilize a variety of dance technologies, such as computer software, hardware, networking, multimedia, interactive media, and the internet in order to foster inquiry, collaboration, and interaction in the classroom to meet the needs of a diverse 21st century student population.

DAN-320HN^Δ: Technology for Dance Educators 2 credits

Students study and utilize a variety of dance technologies, such as computer software, hardware, networking, multimedia, interactive media, and the Internet in order to foster inquiry, collaboration, and interaction in the classroom to meet the needs of a diverse 21st century student population.

DAN-325: Dance Integration 4 credits

This course explores an integrative arts model using methods and assessments for dance in elementary curriculum. Practicum/field experience hours: 10. Fingerprint clearance required.

DAN-335[♦]: Foundations of Dance and Culture for Diverse Learners 4 credits

Students study the historical, philosophical, and sociological influences that have shaped dance, dance education, and the issues faced by educators today, as well as the challenges of the future that await persons now entering the teaching profession. The course also examines the unique learning needs of exceptional students. Emphasis is placed on definitions, etiology, characteristics, and prevalence of various exceptionalities; laws and litigation protecting the rights of students with special needs and their families; current issues affecting persons with special needs; social perceptions, assessment, inclusion, and transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the dance classroom. Practicum/field experience hours: 10. Fingerprint clearance required.

DAN-335N: Foundations of Dance and Culture for Diverse Learners 4 credits

Students study the historical, philosophical, and sociological influences that have shaped dance, dance education, and the issues faced by educators today, as well as the challenges of the future that await persons now entering the teaching profession. The course also examines the unique learning needs of exceptional students. Emphasis is placed on definitions, etiology, characteristics, and prevalence of various exceptionalities; laws and litigation protecting the rights of students with special needs and their families; current issues affecting persons with special needs; social perceptions, assessment, inclusion, and transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the dance classroom. Practicum/field experience hours: 20.

DAN-340^Δ: Dance History II 4 credits

This writing intensive course is a comprehensive comparative study of Western theatrical dance forms. The focus is on significant trends and individuals who shaped the development of modern dance, ballet, jazz, and vernacular dance, from ancient Greece to the modern era.

DAN-350[♦]: Ballet Technique III 1 credits

This course is designed to increase skill in classical ballet technique. It includes advanced concepts, skills, movement vocabulary, and artistic expression specific to ballet. Prerequisite: DAN-250.

DAN-353[♦]: Ballet Technique IV 1 credits

This advanced course is designed to increase technical proficiency and performance skill in classical ballet technique. It includes advanced concepts, skills, movement vocabulary, and artistic expression specific to classical ballet. Prerequisite: DAN-350.

DAN-355^Δ: Dance Kinesiology and Injury Prevention 4 credits

This writing intensive course focuses on the anatomical and mechanical principles that relate to human movement; the analysis, management, and prevention of dance injuries; the analysis of body types and technical ability; and the means by which to improve dance ability. Aspects of teaching safe technique classes and alternative methods will also be explored.

DAN-360[♦]: Jazz Technique III 1 credits

This course is designed to increase skill in jazz technique. It includes advanced concepts, skills, movement vocabulary, and artistic expression specific to jazz. Prerequisite: DAN-260.

DAN-363[♦]: Jazz Technique IV 1 credits

This advanced course is designed to increase technical proficiency and performance skill in jazz technique. It includes advanced concepts, skills, movement vocabulary, and artistic expression specific to jazz. Prerequisite: DAN-360.

DAN-370[♦]: Modern Technique III 1 credits

This course focuses on the exercises and activities necessary to develop strength, flexibility, endurance, and technical dance skill. It includes advanced concepts, skills, movement vocabulary, and artistic expression specific to modern dance. Prerequisite: DAN-270.

DAN-373[♦]: Modern Technique IV 1 credits

This advanced course is designed to increase technical proficiency and performance skill in modern technique. It includes advanced concepts, skills, movement vocabulary, and artistic expression specific to modern dance. Prerequisite: DAN-370.

DAN-380A^Δ: Dance Ensemble III 0.5 credits

This course is designed to prepare the student for a dance concert production in a theatrical setting. Through the rehearsal process and culminating performances, students gain dance proficiency by working in a range of styles and choreographic approaches. Students audition choreography and may be cast as dancers, understudies, stage managers, and production assistants.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

DAN-380B♦: Dance Ensemble III 0.5 credits

This course is designed to prepare the student for a dance concert production in a theatrical setting. Through the rehearsal process and culminating performances, students gain dance proficiency by working in a range of styles and choreographic approaches. Students audition choreography and may be cast as dancers, understudies, stage managers, and production assistants.

DAN-385♦: Choreography I: Space and Time/Design and Dance 2 credits

This course focuses on the elements of time, space, and energy as related to choreographic design. It is a study of these primary dance elements and their intrinsic role in developing diverse understandings of dance. The course considers design in the related fields of music and art as relevant to choreographic design and communication in dance.

DAN-385N♦: Choreography I: Space and Time/Design and Dance 2 credits

This course focuses on the elements of time, space, and energy as related to choreographic design. It is a study of these primary dance elements and their intrinsic role in developing diverse understandings of dance. The course considers design in the related fields of music and art as relevant to choreographic design and communication in dance. Practicum/field experience hours: 10. Fingerprint clearance required.

DAN-390♦: Choreography II: Process 2 credits

This course is a study of and experience in various approaches to the choreographic process as related to artistic concepts and to the philosophy of art as espoused by various traditional and contemporary dance artists and as developed by the individual student. Prerequisite: DAN-385.

DAN-390HN♦: Choreography II: Process 2 credits

This course is a study of and experience in various approaches to the choreographic process as related to artistic concepts and to the philosophy of art as espoused by various traditional and contemporary dance artists and as developed by the individual student. Prerequisite: DAN-385.

DAN-395♦: Dance Production 4 credits

This course is designed to introduce students to the elements of technical theater specific to a dance production and to prepare students to organize a production in a variety of media. The course covers the fundamentals of lighting and costume design; sound/music/video recording and other multimedia devices; and basic elements of production management, such as contracts, labor issues, budgets, facility rentals, marketing and fundraising.

DAN-395HN♦: Dance Production 4 credits

This course is designed to introduce students to the elements of technical theater specific to a dance production and to prepare students to organize a production in a variety of media. The course covers the fundamentals of lighting and costume design; sound/music/video recording and other multimedia devices; and basic elements of production management, such as contracts, labor issues, budgets, facility rentals, marketing and fundraising.

DAN-398♦: Dance Methods and Assessment in the Secondary School 4 credits

This course is a study of methods for developing and conducting the dance program in middle schools and high schools. Methods, materials, topics, and issues in dance education are used to prepare dance education majors to enter the teaching profession. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: DAN-390.

DAN-398N♦: Dance Methods and Assessment in the Secondary School 4 credits

This course is a study of methods for developing and conducting the dance program in middle schools and high schools. Methods, materials, topics, and issues in dance education are used to prepare dance education majors to enter the teaching profession. Practicum/field experience hours: 25. Fingerprint clearance required.

DAN-412♦: Vernacular Dance: Tap II 1 credits

This course is a continuation of the style, technique, and rhythmic structures of tap dance. Students will explore various tap styles with emphasis on increasing movement capabilities and personal expression. Development of proficiency includes fundamental concepts, skills, movement vocabulary, and artistic expression specific to tap dance. Students will explore tap dance through historical, social, aesthetic and improvisational contexts. Prerequisite: DAN-312.

DAN-413♦: Vernacular Dance: Urban & Hip Hop II 1 credits

This course is a continuation of the style, technique, and rhythmic structures of urban and hip hop dance. Students will explore various urban styles with emphasis on increasing movement capabilities and personal expression. Development of proficiency includes fundamental concepts, skills, movement vocabulary, and artistic expression specific to urban dance. Students will explore urban dance through historical, social, aesthetic and improvisational contexts. Prerequisite: DAN-313.

DAN-430: Dance Research Seminar I 2 credits

This course provides an opportunity for students to define their career goals and to network in preparation for a career and/or further dance studies. Students will explore current issues and career trends in dance. Topics will include professional portfolio creation, statement of artistic philosophy, academic research skills and business applications.

DAN-435: Dance Research Seminar II 2 credits

This course is a continuation of Dance Research Seminar I, which provides an opportunity for students to define their career goals and to network in preparation for a career and/or further dance studies. Students will explore current issues and career trends in dance. Topics will include professional portfolio creation, statement of artistic philosophy, academic research skills and business applications.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DAN-450♦: Dance Pedagogy 2 credits

This course encompasses traditional and contemporary approaches of dance education and examines effective teaching practices in settings including elementary and secondary schools, private dance organizations, and community-based settings. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: DAN-355.

DAN-453♦: Ballet Technique V 1 credits

In this course, ballet technique will be studied to enhance mastery in technical and artistic expression. This course will examine pointe for women and conditioning for men, in preparation for partnering work. Partnering skills and classical ballet variations will be included for both men and women.

DAN-465A♦: Master Class: Ballet, Jazz 1 credits

This course is designed for the pre-professional dancer. Students will further their studies in each dance form to enhance mastery in technical and artistic expression. Jazz studies in this course will include mock auditions and informal performance opportunities to reflect professional contexts such as commercial dance and musical theatre. Ballet studies will include pointe for women and conditioning for men, in preparation for partnering work. Partnering skills and classical ballet variations will be included for both men and women. Prerequisites: DAN-353 and DAN-363.

DAN-465B♦: Master Class: Modern 1 credits

This course is designed for the pre-professional dancer. Modern dance technique will be studied with faculty and guest artists to enhance mastery in technical and artistic expression. Students choose either DAN-465A or DAN-465B. Prerequisite: DAN-373.

DAN-470♦: Choreography III: Performance 2 credits

This course is a supervised experience in choreographing a dance for public performance arranged through a cooperative effort of the student and supervisor. Prerequisite: DAN-390.

DAN-475♦: Dance in Sacred Contexts 4 credits

This course will examine dance within both Christian and non-Christian contexts. Students will apply this knowledge to design dances, text and other materials for ministry, worship services, workshops, and outreach.

DAN-480♦: Dance Ensemble IV 1 credits

This course is designed to prepare the student for a dance concert production in a theatrical setting. Through the rehearsal process and culminating performances, students gain dance proficiency by working in a range of styles and choreographic approaches. Students audition choreography and may be cast as dancers, understudies, stage managers, and production assistants.

DAN-485♦: Creative Practices 4 credits

In this course, students conduct artistic research through the practices of improvisation, choreographic choice making, and interdisciplinary collaboration. Students will engage in various creative projects with dance faculty, scholars, performers, and researchers across the College of Fine Arts and Production.

Doctoral Business Administration (DBA)

DBA-805: Management Theory in a Global Economy 3 credits

This course provides an overview of seminal management theories and their relevance, applicability, and/or divergence from current business practice. Students focus on understanding the application of management theories to support organizational sustainability in a global economy.

DBA-810: Contemporary Issues in Marketing 3 credits

This course examines issues, emerging practices, and problems facing marketing executives, researchers, and decision makers. Topics include marketing philosophy and strategy, marketing research, consumer behavior, product development and brand management, pricing, promotion and integrated marketing communications, distribution and supply chain management, services marketing, and global marketing issues and models. Marketing ethics is an integrated topic throughout the curriculum. The course utilizes text, peer-reviewed research, and practitioner articles as a basis for discussion and presentation.

DBA-815: Economics for Business Decisions 3 credits

This course provides the student with the skills and competencies needed to be able to apply microeconomic principles to the solution of business problems. Specifically, the course examines the four market structures focusing on competition and utilizes microeconomic theory to provide solutions to business problems.

DBA-820: Emerging Issues in Financial Management 3 credits

This course explores the theories and frameworks that drive financial decision making in organizations today. Students focus on issues facing administrators in the changing business environment.

DBA-825: Creating Sustainable Competitive Advantage 3 credits

This course examines the evolution of strategic management theories and practices with a particular emphasis on competitive advantage rather than a comprehensive review of the literature relevant to strategic management. It focuses on ideas and perspectives that continue to shape thought, research, and practice in strategic management today, paying particular attention to resource-based, dynamic capabilities and competence-based perspectives.

DBA-830: Statistics for Business Research 3 credits

This course provides an overview of preparing, analyzing, and interpreting data using statistical techniques. Topics include data preparation and statistics basics, as well as factor analysis, t-testing, ANOVA, and correlation and regression.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DBA-831: Analytic Foundations for Business 3 credits
Leaders

This course addresses the foundations of data mining. The course provides tools and techniques to determine whether data is appropriate for analysis. Learners will interact with a multi-year integrated business case as a means of exploring applications of analytics.

DBA-833: Predictive Modeling 3 credits

This course addresses predictive modeling techniques that leverage enterprise data to create competitive advantage. Methods of creating and communicating predictive modeling solutions are also discussed.

DBA-835: The Sustainable Future 3 credits

This course examines organizational sustainability through the lenses of competitive advantage and innovation. It addresses the leadership skills and capabilities required to foster, lead, and sustain innovation in organizations, and it explores how these ideas can be applied to create competitive advantage leading to a sustainable organization.

DBA-837: Prescriptive Modeling for Business 3 credits
Decisions

This course addresses prescriptive modeling techniques that leverage previously gained predictive enterprise data to create competitive advantage. Technological and organizational supports for prescriptive modeling are discussed as are methods of communicating prescriptive modeling solutions.

DBA-839: Enterprise Data Complexity 3 credits

Business is routinely using enterprise data to create competitive advantage. This course addresses the complexity of implementing enterprise data solutions and the related infrastructure considerations. In this course, learners will interact with a multi-year integrated business case to experience the complex interactions associated with exploiting enterprise data for competitive advantage.

DBA-885: Developing the Research Proposal 3 credits

In this course, learners formalize their research proposal specific to their topic. Emphasis is placed on fully developing Chapter 1 and incorporating Chapters 2 and 3 (drafts) from previous research courses. This proposal becomes the first three chapters of the dissertation upon approval of the final draft by the College of Doctoral Studies. Prerequisite: RES-880.

DBA-955^Ω: Dissertation I 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design independent research under the guidance of the dissertation committee.

DBA-960^Ω: Dissertation II 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: DBA-955.

DBA-965^Ω: Dissertation III 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: DBA-960.

DBA-966^Ω: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-965.

DBA-966E: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-965.

DBA-967^Ω: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-966.

DBA-967E: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-966 or DBA-966E.

DBA-968^Ω: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-967.

DBA-968E: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-967 or DBA-967E.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DBA-969^Ω: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-968.

DBA-969E: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-968 or DBA-968E; RSD-951.

DBA-970^Ω: Research Continuation V 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DBA-969.

DBA-975^Ω: Dissertation Research Continuation 0 credits

This course emphasizes the finalization of the dissertation and provides learners guidance for finding the appropriate venues and approaches in publishing their research findings. This will include the final steps necessary in pulling together what might have been earlier versions of chapters 1, 2, and 3, as well as the proofing and dissertation editing strategies that are required and the steps scholars can take to make sure their results are, in fact, shared with other scholars. This includes an exploration of writing research articles, preparing to present scholarly papers, as well as other publication venues. Prerequisites: DBA-966E or DBA-970 and either RSD-951 or D-35 status.

Digital Design (DDN)

DDN-100[♦]: Survey of the Visual Arts 4 credits

This survey course introduces majors to theoretical foundations of the visual arts and cultures. Modes of cultural production are explored—including art, photography, film, and design—with focus on influential artists, critics, and theoreticians. Students begin to identify, form, and critically support their own visual interests and opinions in relation to the diverse and changing nature of contemporary culture. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

DDN-101[♦]: Design Thinking 4 credits

This survey course introduces students to basic design thinking, including principles and elements of design, and concepts of composition. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student artwork. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu.

DDN-105[♦]: Drawing for the Visual Arts 4 credits

Drawing, sketching, conceptualization for clients, and preparing storyboards are essential communication skills in a visual world. This introductory drawing course teaches students about rendering spatial relationships, perspective, light, shadow, texture, and forms. This foundational course includes still life, gesture, and perspective drawing as well as lectures, critiques, and discussions. This course does not require that students have an art background. All types of aspiring artists will benefit from the fundamental and techniques taught in this class. Students will provide drawing supplies and paper along with a portfolio to carry them.

DDN-110[♦]: Design Fundamentals 4 credits

This course is an introduction to the basic elements of design and processes of visual communication using graphic tools standard in the industry. The focus is on mastering pixel, vector, and layout tools to demonstrate two-dimensional graphics, images, symbols, color theory, typography, and composition. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu.

DDN-120[♦]: Production Methods 4 credits

During this course students will apply the concepts of production management, including structuring and preparing electronic files through production for a variety of mediums. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu.

DDN-205[♦]: Figure Drawing 4 credits

This course teaches students the anatomy of figure drawing for animation and character modeling. Developed skill sets transfer to figure drawing of any organic being, whether human or animal. Class time consists of demonstrations, lectures, critiques, and drawing exercises using a variety of media and subject matter. Student will provide drawing supplies and paper, along with a portfolio to carry them. A supply list will be provided at the start of the course.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DDN-210♦: Designing with Type 4 credits

This course explores fundamentals and traditions for designing with type, as well as corporate design with an emphasis on typography with integration of vector designs and photography into promotional pieces. Students propose and create solutions for visual problems with type. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student artwork. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: DDN-110.

DDN-210HN♦: Designing with Type 4 credits

This course explores fundamentals and traditions for designing with type, as well as corporate design with an emphasis on typography with integration of vector designs and photography into promotional pieces. Students propose and create solutions for visual problems with type. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student artwork. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: DDN-110.

DDN-215♦: Digital Photography I 4 credits

In this introductory digital photography course, students explore basic camera operation, digital capture, photographic principles, lighting, and visual design elements. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student photography. This is not a photo manipulation course. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Students are required to provide their own DSLR camera and tripod.

DDN-220♦: 2D Animation Design 4 credits

This course introduces the principles of animation, bringing objects to life using established principles of squash and stretch, key framing, and basic timing techniques. Vector-based design tools are used to create moving design. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student artwork. Prerequisites: DDN-110. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

DDN-230♦: Sculpture 4 credits

This course introduces students to sculpture in various mediums, both traditional and nontraditional; provides practical and theoretical exploration of form, surface, mass, gravity, and structure; includes reading and writing assignments; and requires the creation and exhibition of student artwork. Students will provide their own sculpture tools. A supply list will be posted prior to the start of class.

DDN-240♦: User Experience Design 4 credits

During this course students will apply theories of user experience and interaction to the design of web and mobile products. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud.

DDN-300♦: Web Design I 4 credits

In this course, students learn visual design for the Web, building structure and presentation. Web layouts and style, artistic quality and performance, and navigation and accessibility are explored in the development of Web sites using HTML and CSS. The focus of the course is to develop a core foundation in HTML and CSS before the evaluation of other Web development tools. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: DDN-110 or permission of instructor.

DDN-305♦: Drawing for Animation 4 credits

Students develop perspective and layout techniques for creating depth illusion as applied to principles of 3D modeling and animation. This course emphasizes the study of story, size relationships, values, lines, vanishing points, lighting, path direction, camera placements, and composition. Students also explore drawing media. Prerequisites: DDN-105. Technology requirement: Students provide their own laptop and subscription to Adobe Creative Cloud, a graphics tablet, Audacity sound editing software, and additional supplies as defined during the course.

DDN-310♦: Digital Painting 4 credits

This course is an advanced study in digital painting tools to support animation projects. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud, external drive for back-ups, mouse and/or graphics tablet for input.

DDN-315♦: Digital Photography II 4 credits

In this course, students shoot RAW and apply advanced photography techniques (e.g., corrections, masks, blends, filters and composites) to create visual art. Studio lighting and high dynamic range imaging are explored to create styles and various uses of photography. This course requires Web-based presentations, competitions, and the creation and exhibition of student artwork. Students must provide their own digital SLR camera for this class. Prerequisites: DDN-215. Technology requirement: Students provide their own 35mm DSLR camera and tripod. Personal laptop and Adobe Photoshop or Lightroom are recommended, however computers are available in the Design Lab for processing images.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DDN-330♦: 3D Modeling Design I 4 credits

This course focuses on 3D modeling using a variety of media and processes. Students demonstrate three-dimensional concepts, theories, and application while creating products and package designs; photography and 3D model integration; and beginning character designs. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student artwork. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud. Maya software is available as a student download from the Autodesk website.

DDN-335♦: Web Applications 4 credits

This course focuses on the planning, design, and implementation of dynamic websites. Using modern content management tools, HTML, CSS, and JavaScript, the course explores how to manage and distribute digital content, videos, photos, animations, and articles. Students explore website creation tools such as Wordpress, Joomla!, and Drupal, with a strong focus on creating and managing digital content for multiple platforms. Lastly, the course covers how to keep data safe and secure using cyber security best practices. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud. Prerequisite: DDN-300.

DDN-340♦: History of Design 4 credits

This writing intensive course focuses on the history of visual arts, graphic design, and animation; genres of design; and the influence of artists, graphic artists, and animators through the ages. Emphasis is placed on the history of and current developments in the digital and information age. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

DDN-340HN^Δ♦: History of Design 4 credits

This writing intensive course focuses on the history of visual arts, graphic design, and animation; genres of design; and the influence of artists, graphic artists, and animators through the ages. Emphasis is placed on the history of and current developments in the digital and information age. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

DDN-350♦: Web Design II 4 credits

This course focuses on intermediate Web design from concept development—including roughs and wireframes—to design comps and interactive mock-ups. Students create sitemaps, flow diagrams, and basic user tests to help determine nomenclature, as well as wireframes that represent working models with page elements and functional specifications. Students learn to evaluate web site usability, as well as to conduct accessibility testing. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Students will also purchase their own domain name and internet hosting service. Prerequisite: DDN-300.

DDN-355♦: Content Management Systems 4 credits

In this course, students will learn to use various content management systems for websites, blogs, e-mail marketing, and social media. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud. Students will also purchase their own domain name and internet hosting services. Prerequisite: DDN-300.

DDN-360♦: 3D Modeling Design II 4 credits

This course is a study of the tools used to convert two-dimensional hand drawings, photos, and other references into three-dimensional elements. Students employ the terminology, tools, and topology of animation and game industries while modeling polygons, NURBS, and SubDs. Students explore texturing methods, camera setups, lighting techniques, and rendering options. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student work. Prerequisites: DDN-330. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud. Maya software is available as a student download from the Autodesk website.

DDN-365♦: 3-D Animation and the Mechanics of Motion 4 credits

In this course, the principles of animation are explored in greater depth as they apply to 3D. Students learn about the production cycle of animation while planning models for future animation. Kinematics, rigging, and facial animation processes are explored as students demonstrate walk cycles, express emotions, and synchronize sound to animations. Students also create short animations and integrate basic sound and video compositing software. This course includes reading, writing, and lab assignments. Prerequisites: DDN-220 and DDN-330.

DDN-370♦: Designing with Motion Graphics 4 credits

During this course students will create animated graphics in a variety of mediums to meet client business needs. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student artwork. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud, external drive for back-ups, mouse and/or graphics tablet for input.

DDN-400^Δ♦: Business for the Design Professional 4 credits

This writing intensive course focuses on the essential business skills necessary for the design practice and professional. Business development, legal issues, project management, finances, human resources, and other management issues are explored as they relate to the design profession. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DDN-400HN^Δ: Business for the Design Professional **4 credits**

This writing intensive course focuses on the essential business skills necessary for the design practice and professional. Business development, legal issues, project management, finances, human resources, and other management issues are explored as they relate to the design profession. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

DDN-410♦: 3D Short Film Production **4 credits**

This course explores the process of building a 3D short film as students are introduced to every aspect of the short-film production pipeline. From pre-production when the story and characters are developed to the final lighting, rendering, visual and sound effects, music, titles, and ending credits in post-production are completed, students prepare a production plan for their own animated 3D short film. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud. Maya software is available as a student download from the Autodesk website. Prerequisites: DDN-360 and DDN-365.

DDN-412♦: Short Film Production **4 credits**

In this course students are introduced to every aspect of the short-film production pipeline, from pre-production when the story and characters are developed to the final lighting, rendering, visual and sound effects, music, titles, and ending credits in post-production. Students prepare a production plan for their own animated short film and create production quality scripts and storyboards. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud and Maya software. Maya software is available as a free student download from the Autodesk website. Check system requirements to run those programs at <https://knowledge.autodesk.com/support/maya/troubleshooting/ca/as/sfdarticles/sfdarticles/System-requirements-for-Autodesk-Maya.html>. Prerequisite: DDN-365.

DDN-415♦: 3D Visual Effects and Lighting **4 credits**

In this course, students plan and visualize a special effects project by creating a shot-by-shot storyboard, building environmental sets and props, applying appropriate lighting and special effects, and rendering the solution. Sets are modeled with realistic texturing, lighting design, visual effects, and rendering solutions demonstrated. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud. Maya software is available as a student download from the Autodesk website. Prerequisite: DDN-360.

DDN-420♦: Advanced Animation **4 credits**

This is a highly aesthetic and technical course in which students bring all design skills together, including pre-production, graphic design, modeling, animation, audio production, texturing, and rendering. Students must demonstrate composition, timing, and editing while producing a short, time-based project. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud. Maya software is available as a student download from the Autodesk website. Prerequisite: DDN-412.

DDN-430♦: Programming for the Web I **4 credits**

This course is an introduction to Web programming, Web server technologies, HTTP/HTTPS servers, Web security, PHP and ASP.net, and Unix/Linux open-source-based applications. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud. Additional programming tools will be assigned at the start of the course. Prerequisite: DDN-350.

DDN-440♦: Interactive Web Design **4 credits**

This course explores the use of interactive Web and rich Internet applications. The integration of music, sound, video, and animation is considered in design. Students use object-oriented scripting language and standard Web tools to create dynamic Web sites. Prerequisites: DDN-430. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud. Additional programming tools will be assigned at the start of the course. Prerequisites: DDN-430. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud. Additional programming tools will be assigned at the start of the course.

DDN-450♦: Programming for the Web II **4 credits**

This course focuses on advanced Web programming. Students work in a production environment resolving code issues, providing “work-arounds,” and improving Web design. Prerequisites: DDN-430. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud. Additional programming tools will be assigned at the start of the course.

DDN-455♦: Designing for New Technologies **4 credits**

During this course students will forecast new technologies in order to enhance user experience. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud.

DDN-460♦: Advanced Web Projects **4 credits**

During this course students will create self-directed web projects to meet client business needs. Technology requirement: Students provide their own laptop, a graphics tablet, external hard drive, and subscription to the Adobe Creative Cloud. Students will also purchase their own domain name and internet hosting service. Prerequisite: DDN-455.

DDN-475♦: Advanced Design Practicum **4 credits**

In this advanced design course, students incorporate their personal style into the development of a portfolio. Professional design projects for a variety of campus and studio-based projects provide opportunities for students to fine-tune solutions for customer-driven, reality-based design problems. Students propose design solutions, practicing their communication and presentation skills while exploring career opportunities. The ethics of business practice is incorporated into studio projects. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: Senior standing.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DDN-475HN[‡]: Advanced Design Practicum 4 credits

In this advanced design course, students incorporate their personal style into the development of a portfolio. Professional design projects for a variety of campus and studio-based projects provide opportunities for students to fine-tune solutions for customer-driven, reality-based design problems. Students propose design solutions, practicing their communication and presentation skills while exploring career opportunities. The ethics of business practice is incorporated into studio projects. Technology requirement: Students are responsible for providing their own laptop that is capable of running the Adobe Creative Cloud. Verify required technical specifications in the University Policy Handbook available on www.gcu.edu. Prerequisite: Senior standing.

Digital Film and Production (DFP)

DFP-101[♦]: Introduction to Cinema: History & Aesthetics 4 credits

This course covers multiple eras and movements throughout the age of film.

DFP-101HN^{‡♦}: Introduction to Cinema: History & Aesthetics 4 credits

This course covers multiple eras and movements throughout the age of film.

DFP-101XV: Introduction to Cinema: History & Aesthetics 4 credits

This course covers multiple eras and movements throughout the age of film.

DFP-111[♦]: Digital Video Production I 4 credits

This course introduces students to the technical and aesthetic aspects of small format digital production as well as the basic principles of motion picture production. Students learn the language of film/digital video and how its manipulation can express one's individual message or purpose.

DFP-111XV: Digital Video Production I 4 credits

This course introduces students to the technical and aesthetic aspects of small format digital production as well as the basic principles of motion picture production. Students learn the language of film/digital video and how its manipulation can express one's individual message or purpose.

DFP-113[♦]: Film Financing, Budgeting and Distribution 4 credits

This course is an intense overview of the entire process beyond the creation of a production. Students review film financing, contracting, budgeting, insurance, etc.

DFP-115[♦]: Acting for the Camera 4 credits

This introductory course helps digital film production students to develop skills and gain experience in acting and directing for the camera. Students participate on both sides of the camera. Course sessions include lecture, practical exercises, and preparation for analyzing and blocking a scene and working on a set. Students screen selected film clips to evaluate performances, explore methods to prepare for an audition, discuss the actor/director relationship, and examine the professional requirements of relating to a crew.

DFP-221^{^♦}: Screenwriting I 4 credits

Students in this writing intensive course learn storytelling for the screen through a managed regimen of in-class and out-of-class experiences that emphasize the essential mix of imagination and craft in writing. They hone their skills in observation, communication, and visualization, and receive instruction on structure for screenwriting and how to employ written language to articulate dramatic and visual expression.

DFP-223[♦]: Cinematography 4 credits

This course is an intensive exploration of the craft, technologies, and aesthetic principles of cinematography, lighting, and set design techniques. Lectures and in-class demonstrations cover video formats, cameras, exposure, lenses and optics, lighting units, lighting placement, lighting control, camera support, and camera movement.

DFP-225[♦]: Nonlinear Editing 4 credits

This course follows the general chronology of editing from capture and logging, through editing and effects, to final output of a finished program. The first half of the course is devoted entirely to a mastery of the editing software. The second half of the course is devoted to examining how and why editing is important. Different editing theories are explored, including montage, fast cut, long take, jump cut, and others.

DFP-227[♦]: Audio Production and Design 4 credits

This course is an interactive exploration and implementation of audio production for cinema, including multimodal and theoretical approaches.

DFP-230[♦]: Writing the Genre Film 4 credits

Understanding genre conventions and tropes is critical to a screenwriter's success. This course combines script analysis with the practice of writing short scripts for a variety of genres. Prerequisite: DFP-221.

DFP-235[♦]: Writing the Character-Centered Screenplay 4 credits

One of the greatest challenges for screenwriters is to create dynamic, believable characters. In this course, students will reflect on the role of character and the relationship between strong characters and a strong screenplay. Prerequisite: DFP-221.

[^] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

DFP-301[△]: Film Production Management 4 credits

In this writing intensive course, students will learn how to take a project from development into pre-production and then, how to effectively market and distribute the project. Although students will not be filming the project, students will utilize their production knowledge in building realistic schedules and budgets for their projects. Prerequisites: DFP-111 and DFP-221.

DFP-311[♦]: Cinema Directing 4 credits

This course utilizes techniques of directing, sound editing, lighting, and advanced editing programs. Several practical and written exercises lead to a short digital production. Students spend time working with actors in front of the camera as well as composing shots to convey a story visually. Prerequisites: DFP-111 and DFP-221.

DFP-311HN^{△♦}: Cinema Directing 4 credits

This course utilizes techniques of directing, sound editing, lighting, and advanced editing programs. Several practical and written exercises lead to a short digital production. Students spend time working with actors in front of the camera as well as composing shots to convey a story visually.

DFP-331[♦]: Visual Storytelling 4 credits

This course focuses on the elements that make up almost all storytelling. Students are encouraged to discover and develop their unique voices as writers and storytellers, while understanding the critical importance of working as part of a creative team. This course emphasizes the use of traditional storytelling, classic mythology, and the ways in which these devices apply to contemporary media.

DFP-331HN^{△♦}: Visual Storytelling 4 credits

This course focuses on the elements that make up almost all storytelling. Students are encouraged to discover and develop their unique voices as writers and storytellers, while understanding the critical importance of working as part of a creative team. This course emphasizes the use of traditional storytelling, classic mythology, and the ways in which these devices apply to contemporary media.

DFP-341[♦]: Writing Meaningful Dialogue 4 credits

Poorly written dialogue can remove a character's authenticity and diminish the audience's suspension of disbelief. This course explores what constitutes great dialogue and delves into techniques that allow writers to incorporate powerful subtext, craft honest and emotionally impactful dialogue, and integrate exposition seamlessly. Prerequisite: DFP-235.

DFP-346[♦]: Development and Production of TV Commercials 4 credits

In this course, students learn the entire process of creating television and Internet commercials. Students learn the skills of writing copy, developing ideas, researching the marketplace, working with client needs, pitching, and production of television commercials.

DFP-351[♦]: Audio Production for Cinema and Television 4 credits

This course introduces basic audio production skills and encourages students to face the challenges of audio production within the film and television industry. Students will learn how to capture clear sound as well as how to manipulate sound during the post-production stage. Prerequisite: DFP-111.

DFP-361[♦]: Music Video/Documentary Production 4 credits

This course is a survey of music video and documentary productions. Students study, analyze, and implement techniques in both types of productions. Prerequisite: DFP-111.

DFP-370[♦]: Creating Authentic Cinematic Conflict 4 credits

Maintaining interest while the story unfolds is an important task for the screenwriter. This course delves deeply into screenplay structure, analyzing dramatic strategies employed by successful screenwriters. Students will engage in various stages of the screenwriting process. Prerequisite: DFP-221.

DFP-451[♦]: Digital Production II 4 credits

This course exposes students to every aspect of media production. Students also learn how to work well in a team environment and to adhere to deadlines, time constraints, and medium limitations. Prerequisite: DFP-111.

DFP-455[♦]: Advanced Digital Post-Production 4 credits

This class is about developing students' understanding of the art of cinematic storytelling and montage and exposing them to the cueing, performing, and editing of Foley and Automated Dialogue Replacement. Students work on more advanced projects is integrated into the class as a means of mastering advanced editing tools and techniques.

DFP-457^{△♦}: Screenwriting II 4 credits

Students in this writing intensive course study, analyze, and implement advanced techniques in creating cinema screenplays. This course emphasizes the use of traditional storytelling and classic mythology, and how these devices apply to contemporary screenplays. Prerequisite: DFP-221.

DFP-460[♦]: Creating the Dramatic Television Series 4 credits

In this course, students will learn the entire process of creating a dramatic television series. Students learn the skills of developing ideas, researching the marketplace, creating character bios, writing pilots, and pitching. Prerequisite: DFP-221.

DFP-463[♦]: Adapting Media to Screenplays 4 credits

Students learn to adapt various forms of media to screenplays. Prerequisite: DFP-221.

DFP-470[♦]: Screenwriting Capstone 4 credits

Students participate in individually writing a full-length feature film. They also explore all aspects of structure, character, settings, theme, obstacle, and expressive writing storytelling. Prerequisites: DFP-457 and DFP-463.

[△] Writing intensive course | [♦] Fulfills General Education requirement | [△] Honors Major Course | ^Ω Non-Transferable

DFP-480[♦]: Digital Production Practicum 4 credits

This practicum allows students to apply digital production principles. The course focuses on the process and completion of a short digital film. Prerequisite: DFP-451.

Design Studio (DGN)

DGN-210[♦]: Introduction to 3-D Animation 4 credits

This is an introductory course exploring 3D computer graphics using industry standard Maya software. Students research the history of computer graphics and the different media formats where 3D characters, objects, and sets are used. Students are introduced to the entire production pipeline of 3D animation, including modeling, texturing, rigging, lighting, and rendering. Coursework is a combination of lecture, critique, and lab work. Maya software is required for the online course.

Dissertation (DIS)

DIS-955^Δ: Dissertation I 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated, committed and to reflective practice. They actively seek input from other scholars while continuing to design independent research under the guidance of the dissertation committee. Prerequisite: RES-871 or RES-885.

DIS-960^Δ: Dissertation II 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: DIS-955.

DIS-965^Δ: Dissertation III 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: DIS-960.

DIS-966^Δ: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-965.

DIS-966E: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-965.

DIS-967^Δ: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-966.

DIS-967E: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-966 or DIS-966E.

DIS-968^Δ: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-967.

DIS-968E: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-967 or DIS-967E.

DIS-969^Δ: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-968.

DIS-969E: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DID-968 or DIS-968E; RSD-951.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

DIS-970^Ω: Research Continuation V 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: DIS-969.

DIS-975^Ω: Research Continuation Course 0 credits

This course emphasizes the finalization of the dissertation and provides learners guidance for finding the appropriate venues and approaches in publishing their research findings. This will include the final steps necessary in pulling together what might have been earlier versions of chapters 1, 2, and 3, as well as the proofing and dissertation editing strategies that are required and the steps scholars can take to make sure their results are, in fact, shared with other scholars. This includes an exploration of writing research articles, preparing to present scholarly papers, as well as other publication venues. Prerequisites: DIS-966E or DIS-970 and either RSD-951 or D-35 status.

Doctor of Nursing Practice (DNP)

DNP-801^Ω: Introduction to DNP Studies 3 credits

This course introduces learners to the skills and mindset necessary for success on the doctoral journey. These skills include critical thinking and analysis, navigating resources, academic writing for the doctoral level, identifying and understanding scholarly research, and the role of the practitioner-scholar.

DNP-805: Health Care Informatics 3 credits

This course provides the foundations for using information systems/technology to support and improve patient care and health care systems. The course is designed to provide the tools needed to manage individual and aggregate level information and use information systems/technology to evaluate programs of care, outcomes of care, and care systems using industry standards and related ethical, regulatory, and legal principles. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice. Prerequisite: DNP-801.

DNP-810: Emerging Areas of Human Health 3 credits

Advanced nursing practice requires practice expertise and specialized knowledge in making diagnostic and practice management decisions. This science-based course gives learners insight into emerging areas of human health to improve health outcomes and establish programs of clinical excellence and emphasizes guidance and coaching of individuals and families through developmental, health-illness, and situational transitions from a holistic perspective. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice. Prerequisite: DNP-805.

DNP-815^Ω: Scientific Underpinnings 3 credits

This course creates a base for the application of science into advanced nursing practice and includes philosophical, ethical, and historical foundations. Nursing science frames the development of theories and concepts to guide nursing practice and determine the nature and significance of health and health care delivery phenomena. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice in the DNP Practice Immersion Workspace. Practice hours: Learners must be able to document a minimum of 50 concurrently or previously logged practice hours in association with this course. Practicum/field experience hours: 50. Prerequisite: DNP-810.

DNP-820^Ω: Translational Research and Evidence-Based Practice 3 credits

This course focuses on a core set of skills and knowledge application activities related to the translation of research into practice, the evaluation of practice, and improvement of health care outcomes. Learners examine evidence to guide improvements in practice and outcomes of care. Literature reviews focus on gaps or tensions in the translation of research into practice. Ethical considerations are also examined in the context of health care research. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice in the DNP Practice Immersion Workspace. Practice hours: Learners must be able to document a minimum of 50 concurrently or previously logged practice hours in association with this course. Practicum/field experience hours: 50. Prerequisite: DNP-815.

DNP-825: Population Management 3 credits

This course examines ideas that promote understanding of aggregate, community, environmental/occupational, and cultural/socioeconomic dimensions of health. Learners analyze epidemiological, biostatistical, occupational, and environmental data in the development, implementation, and evaluation of clinical prevention and population health. Evidence-based recommendations for health promotion and risk reduction for individuals and families and concepts of public health are emphasized. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice in the DNP Practice Immersion Workspace. Practice hours: Learners must be able to document a minimum of 50 concurrently or previously logged practice hours in association with this course. Practicum/field experience hours: 50. Prerequisite: DNP-820.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DNP-830^Ω: Data Analysis 3 credits

This course focuses on the analysis of data that is grounded in clinical practice and designed to solve practice problems or to inform practice directly. It emphasizes the use of analytic methods to critically appraise gathered evidence to determine and implement the best evidence for practice. Learners also learn to disseminate findings from evidence-based practice and research to improve health care outcomes. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice in the DNP Practice Immersion Workspace. Practice hours: Learners must be able to document a minimum of 50 concurrently or previously logged practice hours in association with this course. Practicum/field experience hours: 50. Prerequisite: DNP-825.

DNP-835: Patient Outcomes and Sustainable Change 3 credits

This course prepares learners to develop effective strategies to ensure safety and quality health care for patients and populations and includes evaluation of health care outcomes. Learners engage in inquiry into the state of health care delivery, patient-centered care, sustainable change, and ethical principles surrounding practice. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice in the DNP Practice Immersion Workspace. Practice hours: Learners must be able to document a minimum of 50 concurrently or previously logged practice hours in association with this course. Practicum/field experience hours: 50. Prerequisite: DNP-825.

DNP-836: Facilitation of Learning in Nursing Education 3 credits

This course explores the role of the nurse educator in higher education settings with specific emphasis on effective methods of facilitating learning and fostering critical thinking skills in diverse student populations. Learners are introduced to instructional strategies and methods grounded in evidence-based practice and learning theory and engage in the selection of appropriate strategies to facilitate learning. Learners also consider the effective integration of technology and simulation into teaching practice. Learners are expected to integrate the educational leadership competencies through completion of education practicum hours during this course. Practicum/field experience hours: 50. Prerequisite: DNP-810.

DNP-837: Curriculum Design and Assessment 3 credits

This course focuses on curriculum design and assessment of student learning outcomes in nursing education. Learners examine best practices for curriculum development, including performing needs assessments, writing learning objectives, and creating formative and summative assessments. Learners also consider selection of content and instructional strategies based on diverse student needs and collecting and employing assessment data to improve teaching and learning outcomes. Learners are expected to integrate the educational leadership competencies through completion of education practicum hours during this course. Practicum/field experience hours: 50. Prerequisite: DNP-836.

DNP-838: Nursing Program Development and Educational Leadership 3 credits

In this course, learners examine issues related to nursing program development within the complex and highly regulated environment of nursing education. With a focus on regulatory and accrediting bodies, learners determine the best methods for designing, evaluating, and improving nursing education programs in order to meet the diverse needs of industry and other stakeholders. Learners also explore leadership issues in nursing education and the professional development and scholarly obligations of the nurse educator-scholar in the academic community. Learners are expected to integrate the educational leadership competencies through completion of education practicum hours during this course. Practicum/field experience hours: 50. Prerequisite: DNP-837.

DNP-840^Ω: Leadership for Advanced Nursing Practice 3 credits

Advanced nursing practice requires political skills, systems thinking, and the business and financial insight needed for the analysis of practice quality and costs related to caring for the needs of a panel of patients, a target population, a set of populations, or a broad community. Learners conceptualize new interprofessional care delivery models that are based in contemporary nursing science and that are feasible within current organizational, political, cultural, and economic perspectives. Learners are expected to integrate and synthesize core program competencies and specialty practice requirements necessary to demonstrate proficiency in advanced nursing practice in the DNP Practice Immersion Workspace. Practice hours: Learners must be able to document a minimum of 50 concurrently or previously logged practice hours in association with this course. Practicum/field experience hours: 50. Prerequisite: DNP-835.

DNP-955^Ω: DPI Project: Part I 3 credits

Learners finalize an issue in health care that will become the basis of an evidence-based research project to be carried out prior to completion of the doctoral program. Learners leave this course with a project goal/topic, a literature review, a proposed methodology, and a clear description of how addressing the issue presented will improve patient care. A project proposal is written in preparation for the Institutional Review Board (IRB) review. Learners are required to plan and document their learning goals and activities using the DPI Project Milestone Guide. Learners also continue work as necessary in the DNP Practice Immersion Workspace to ensure that all programmatic requirements have been met. Practice hours: Learners must be able to document a minimum of 100 concurrently or previously logged practice hours in association with the three DPI Project courses. Practicum/field experience hours: 34. Prerequisite: DNP-840.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DNP-960^Ω: DPI Project: Part II 3 credits

Learners submit a project for approval to the Institutional Review Board (IRB). Once IRB approval is obtained, the learner conducts the project. Data is appropriately gathered for future analysis to determine if the practice investigated in the project brought about improved outcomes. Learners are required to plan and document their learning goals and activities using the DPI Project Milestone Guide. Learners also continue work as necessary in the DNP Practice Immersion Workspace to ensure that all programmatic requirements have been met. Practice hours: Learners must be able to document a minimum of 100 concurrently or previously logged practice hours in association with the three DPI Project courses. Practicum/field experience hours: 33. Prerequisite: DNP-955.

DNP-965^Ω: DPI Project: Part III 3 credits

Data gathered during the project is analyzed and evaluated to determine the outcomes garnered by the project. A proposal for dissemination and mass implementation is created. Learners identify areas of future research and practice change for the continued improvement of health care. Learners are required to plan and document their learning goals and activities using the DPI Project Milestone Guide. Learners also continue work as necessary in the DNP Practice Immersion Workspace to ensure that all programmatic requirements have been met. Practice hours: Learners must be able to document a minimum of 100 concurrently or previously logged practice hours in association with the three DPI Project courses. Practicum/field experience hours: 33. Prerequisite: DNP-960.

DNP-966^Ω: Project Continuation I 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-965.

DNP-967^Ω: Project Continuation II 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-966.

DNP-968^Ω: Project Continuation III 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-967.

DNP-969: Project Continuation IV 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-968.

DNP-970: Project Continuation V 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-969.

DNP-971: Project Continuation VI 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-970.

DNP-972: Project Continuation VII 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-971.

DNP-973: Project Continuation VIII 3 credits

This course emphasizes the finalization of the requirements needed to complete the DNP program and provides learners with individualized support for completing their program requirements. Learners continue to work directly with their chairperson and committee members based on their individual success plan for completing their programs. Prerequisite: DNP-972.

Data Science (DSC)

DSC-510: Advanced Probability and Statistics 4 credits

This course reviews probability, distributions, statistical methods, and data analysis, in the context of computational science. Students use statistical computing software to analyze, visualize, and communicate results.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

DSC-520: Regression Analysis 4 credits

This course covers methods and applications of linear regression and multivariate analysis in predictive modeling. Students learn how to build and validate statistical models, using exploratory analysis, linear regression, principal components analysis, and cluster analysis. Prerequisite: Prerequisite: DSC-510.

DSC-530: Predictive Modeling 4 credits

This course focuses on foundational principles and on the process of developing mathematical tools and models that generates accurate predictions. Students design, build, and validate software applications that implement supervised learning algorithms. Prerequisite: Prerequisite: DSC-520.

DSC-540: Machine Learning for Data Science 4 credits

This course covers the use, analysis, design, and implementation of machine learning algorithms. Students acquire in depth understanding of theoretical underpinning of both simple and advanced algorithms. Prerequisite: Prerequisite: DSC-520.

DSC-550: Neural Networks and Deep Learning 4 credits

This course introduces deep artificial neural networks, reviewing the theoretical concepts and practical applications in data science. Students design and implement ANNs, while learning methods for training, testing, and deployment. A distinction is made between neural networks, convolutional neural networks, and recurrent neural networks. Prerequisite: Prerequisite: DSC-520.

DSC-570: Data Mining 4 credits

This course combines mathematical and theoretical aspects of data analytics towards implementations in a computational form. Data mining algorithms and related methods for knowledge representation and reasoning form the basis for the development of decision and analytics software tools. Prerequisite: Prerequisite: CST-560.

DSC-580: Designing and Creating Data Products 4 credits

This course presents the process for designing and creating software applications that use data to achieve an end goal. Several software development tools and languages are used to build products that use data to accomplish a business analytics or scientific exploration task.

DSC-590: Data Science Capstone Project 4 credits

Students conceptualize, design, and present an innovative idea, process, or a product in the field of data science. Projects synthesize and apply knowledge from previous courses and include a scientific report anchored in current theory and research.

Educational Administration (EAD)

EAD-501^Ω: Educational Administration: Foundations for the Developing Leader 3 credits

This course begins by acquainting candidates with the GCU learning management system, while preparing them to be successful graduate-level students and future educational leaders. With an intense programmatic focus on developing people into leaders, this course examines the essential value of Leading with Purpose, a principal cornerstone of the College of Education's mission statement and Conceptual Framework. Major leadership styles, philosophies and the characteristic leadership behaviors will be a fundamental focus while candidates begin to understand and develop their own leadership style and philosophy. This development will occur in context as candidates are exposed to the leadership foundations provided through the professional standards and code of ethics for educational leaders. Practicum/field experience hours: 10. Fingerprint clearance not required.

EAD-505: Education Law 3 credits

This course will introduce candidates to the laws and policies governing and relating to PreK-12 education in the United States. Through case studies, a broad range of topics will be examined including, due process, discipline, freedom of speech, school safety, discrimination, religion in schools, and rights of students with disabilities. These and other topics will be framed in context to inform the future principal's role in improving outcomes for all students. Practicum/field experience hours: 10. Fingerprint clearance not required. Prerequisite: EAD-501.

EAD-510: Education Finance 3 credits

This course examines PK-12 education finance with a fundamental focus on issues and practices that directly affect the operation of the school and local education agency (LEA). Candidates will be exposed to the regulations encompassed in the Uniform System of Financial Records (USFR) and the implications of these regulations at the school site level. School finance topics related to education at the federal, state, and local levels will be examined. Candidates will explore school budget and accounting principles, fiscal responsibility, resource allocation, basic administrative theories, processes, and techniques, as well as discuss the major challenges facing them in the daily operation of local schools. Practicum/field experience hours: 10. Fingerprint clearance not required. Prerequisite: EAD-501.

EAD-513: Shaping School Culture 3 credits

This course emphasizes the critical role of the leader in creating and sustaining a positive school culture and shared vision. Given diverse settings, contexts and leadership situations, candidates will explore how various leadership styles, philosophies and behaviors can promote or hinder the development of a quality learning culture and positive workplace conditions. Additionally, candidates will examine supervisory processes and strategies by which educational leaders can empower teacher self-efficacy and promote instructional improvement that enriches the outcomes for all students. Practicum/field experience hours: 10. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EAD-519: Clinical Internship I: Learner-Centered Leadership 3 credits

The Internship experience and course content bridge program knowledge and skills with a focus on observing, participating, and leading. Principal candidates will apply building-level leadership skills in a clinical practice designed to facilitate the candidate's ultimate success in improving the outcomes for all students as a school leader. The timeliness of the Internship promotes the authentic learning application of Block 1 tasks at a level of competence needed to ensure effective school leadership. Practicum/field experience hours: 90. Fingerprint clearance required. Prerequisites: EAD-501, EAD-505, and EAD-510.

EAD-520: Strengthening Curricular Programs to Promote Continuous School Improvement 3 credits

This course prepares candidates to become effective instructional leaders in the evaluation of school-wide curricular programs to promote continuous school improvement. Candidates will explore processes in planning, implementation, and evaluation of programs and curriculum, while ensuring that curricular design, instructional strategies, and learning environments integrate appropriate technologies that maximize learning and teaching. Data-driven analysis is emphasized throughout. Practicum/field experience hours: 10. Fingerprint clearance required.

EAD-523: Developing Professional Capacity 3 credits

This course prepares candidates to become effective building-level instructional leaders in the development of professional capacity. Candidates will investigate various school professional development program practices including Professional Learning Communities, Collaborative Learning Communities, beginning teacher induction, and mentor program models. Additionally, candidates will analyze theoretical models, research, and best practices for improving teaching as well as learning outcomes for all students, with a strong emphasis on data-driven, learner-centered decision-making. Practicum/field experience hours: 10. Fingerprint clearance required.

EAD-529: Clinical Internship II: Learner-Centered Leadership 3 credits

The Internship experience and course content bridge program knowledge and skills with a focus on observing, participating, and leading. Principal candidates will apply building-level leadership skills in a clinical practice designed to facilitate the candidate's ultimate success in improving the outcomes for all students as a school leader. The timeliness of the Internship promotes the authentic learning application of Block 2 tasks at a level of competence needed to ensure effective school leadership. Practicum/field experience hours: 90. Fingerprint clearance required. Prerequisites: EAD-519, EAD-513, EAD-520, and EAD-523.

EAD-530: Improving Teacher Performance and Self-efficacy 3 credits

This course prepares candidates to become effective building-level instructional leaders who are able to positively enrich teaching and learning experiences/outcomes through leadership practices that improve teacher performance, self-efficacy, and morale. Course topics promote the learning of strategies including coaching; collaborative learning and decision-making; creating a safe and supportive professional learning culture; and reflective practice. Candidates will examine current policy and practice in the areas of teacher observation, evaluation, and teacher performance ratings. Practicum/field experience hours: 10. Fingerprint clearance required.

EAD-533: Developing and Empowering Instructional Leaders 3 credits

This course prepares candidates to become effective building-level instructional leaders who are able to positively enrich teaching and learning experiences/outcomes through leadership practices that improve teacher performance, self-efficacy, and morale. Course topics promote the learning of strategies including cognitive coaching; collaborative learning/decision-making; creating a safe/supportive professional learning culture; and reflective practice. Candidates will examine current policy and practice in the areas of teacher observation, evaluation, value-added student growth models, and teacher performance ratings. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: EAD-501.

EAD-536: Strategic Leadership and Management in the Principalship 3 credits

This course will explore critical issues facing school principals, including the challenge of attracting and retaining a quality work force, managing and allocating resources, innovative instructional leadership, creating community partnerships, and meeting the myriad of district, state and federal policies and laws. With a focus on all six Interstate School Leaders Licensure Consortium (ISLLC) standards, candidates will holistically analyze a school's Continuous Improvement Plan (CIP) and focused action plans in various contexts. This analysis will inform the candidate's understanding of the important implications of managing school resources in order to meet operational needs and improve outcomes for all students. Practicum/field experience hours: 10. Fingerprint clearance required.

EAD-539: Clinical Internship III: Learner-Centered Leadership 3 credits

The Internship experience and course content bridge program knowledge and skills with a focus on observing, participating, and leading. Principal candidates will apply building-level leadership skills in a clinical practice designed to facilitate the candidate's ultimate success in improving the outcomes for all students as a school leader. The timeliness of the Internship promotes the authentic learning application of Block 3 tasks at a level of competence needed to ensure effective school leadership. Practicum/field experience hours: 90. Fingerprint clearance required. Prerequisites: EAD-529, EAD-530, EAD-533, and EAD-536.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EAD-609: Superintendent Internship 3 credits

This internship is designed to provide candidates interested in PK-12 district office leadership meaningful learning experiences needed to prepare for PK-12 district leadership positions. Designated field experience opportunities include orientation to district office organization, responsibilities of the superintendent, district office organizational structure, district governance, community relations, and personnel development. Practicum/field experience hours: 90. Fingerprint clearance required.

Early Childhood Education (ECE)

ECE-120: Early Childhood Foundations and the Teaching Profession 4 credits

This course focuses on foundations of early childhood education with an emphasis on the historical context, ethical practices, philosophical and psychological theories, and current early childhood educational models including the Montessori education model. Teacher candidates will also examine the roles and expectations of early childhood educators, and have the opportunity to reflect on and plan for their own professional development. Practicum/field experience hours: None. Fingerprint clearance not required.

ECE-130: Educational and Developmental Psychology for Early Childhood Educators 4 credits

This course focuses on theories of child development and learning. Teacher candidates will examine the application of those theories to traditional and Montessori early childhood models and evaluate their contemporary usefulness in supporting children's academic achievement, brain development, and social and emotional growth through early childhood. Practicum/field experience hours: None. Fingerprint clearance not required.

ECE-210: Instructional Planning for Young Children 4 credits

In this course, teacher candidates examine principles of instructional planning with an emphasis on alignment between content standards, objectives, and assessment. Additional focus is placed on meeting the needs of individual learners through differentiated instruction. Engagement methods, including the use of technology, are explored. Practicum/field experience hours: None. Fingerprint clearance not required.

ECE-220: Typical and Atypical Behaviors in Early Childhood 4 credits

This course focuses on the developmental milestones of typical and atypical students, as well as evaluating disabilities and gifted tendencies among students in Birth – Grade 3 settings. Teacher candidates will also examine early interventions for students who demonstrate atypical behaviors, and investigate the role IDEA plays in early childhood settings. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-220HN^Δ: Typical and Atypical Behaviors in Early Childhood 4 credits

This course focuses on the developmental milestones of typical and atypical students, as well as evaluating disabilities and gifted tendencies among students in Birth – Grade 3 settings. Teacher candidates will also examine early interventions for students who demonstrate atypical behaviors, and investigate the role IDEA plays in early childhood settings. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-230: Assessing, Monitoring, and Reporting Progress of Young Children 4 credits

In this course, teacher candidates will examine the learning cycle from the perspective of the student as well as the teacher. Key components include pre-assessment, analysis of data, lesson planning, instruction, post-assessment and reflection, and next steps. Assessing, monitoring, and reporting the performance and progress of young children is examined, as well as making educated projections for children's future performances based on age/grade level standards. Areas of focus in the course include the history and challenges of testing and the role of technology in assessment. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-300: Development of Health, Safety and Nutrition in Young Children 4 credits

The course examines child growth and development as they relate to the health, safety, nutrition and fitness of young children. Principles and practices of personal and community health and safety are explored. Teacher candidates also consider strategies for developing the motor skills, social skills, confidence and enjoyment of movement in young children. Practicum/field experience hours: 5. Fingerprint clearance required.

ECE-340: Language and Early Literacy Development 4 credits

This course examines current research in language and literacy development, with an emphasis on effective instructional strategies for developing oral language and pre-literacy skills (such as phonemic awareness and decoding) in young children. Teacher candidates will also research and consider tools used to assess language development skills. Practicum/field experience hours: 5. Fingerprint clearance required.

ECE-350: Literature as a Tool for Instruction 4 credits

This course is a study of children's literature and the reciprocal process between reading and writing. There is an emphasis on the genres, examining each one's characteristics and contexts for use in both reading and writing. Other topics covered in this course include criteria for evaluating, analyzing, and selecting children's literature, the integration of literature across the curriculum, and family involvement. Practicum/field experience hours: 5. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECE-360: Family, Community, and Cultural Awareness in Early Childhood 4 credits

In this course, teacher candidates examine cultural learning theories as well as the relationships and structures of family that make up the classroom and community. Emphasis is placed on identifying community, school, and familial needs maintaining open communication with families in order to enhance the learning environment. Practicum/field experience hours: 5. Fingerprint clearance required.

ECE-360HN^Δ: Family, Community, and Cultural Awareness in Early Childhood 4 credits

In this course, teacher candidates examine cultural learning theories as well as the relationships and structures of family that make up the classroom and community. Emphasis is placed on identifying community, school, and familial needs maintaining open communication with families in order to enhance the learning environment. Practicum/field experience hours: 5. Fingerprint clearance required.

ECE-400: Child Guidance and Management in Early Childhood Education 4 credits

This writing intensive course focuses on creating a positive culture in the learning environment, implementing classroom management strategies, supporting students with challenging behaviors, and addressing young children's social and emotional needs. This course explores theories and models, including Montessori methodologies, which foster a safe and effective classroom environment. Special attention is placed on the guidance approach. Teacher candidates are introduced to the educational benefits of family involvement, addressing diverse learning needs, and developing realistic management policies and procedures that benefit the learning environment. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-450: Instructional Methodologies: Language Arts and the Creative Arts 4 credits

This course examines literacy methodologies for teaching children Kindergarten to Grade 3, with an emphasis in incorporating the arts. Teacher candidates apply the skills necessary to develop instruction for language arts and creative arts that is standards-based and data-driven. Candidates are also given the opportunity to deliver instruction and evaluate their professional practice. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ECE-230 and ECE-340.

ECE-455: Instructional Methodologies: Mathematics 4 credits

This course examines mathematical methodologies for teaching children Pre-K to Grade 3, with an emphasis in hands-on and manipulative-based learning. Teacher candidates apply the skills necessary to develop a mathematical unit plan that is standards-based and data-driven. Candidates are also given the opportunity to deliver instruction and evaluate their professional practice. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ECE-230.

ECE-460: Instructional Methodologies: Science 4 credits

This course examines science methodologies for teaching children Birth to Grade 3, with an emphasis on inquiry-based learning. Teacher candidates apply the skills necessary to develop a science unit plan that is standards-based and data-driven. Candidates are also given the opportunity to deliver instruction and evaluate their professional practice. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ECE-230.

ECE-465: Instructional Methodologies: Social Studies 4 credits

This course examines social studies methodologies for teaching children Kindergarten to Grade 3, with an emphasis on connections to past, present, and future concepts and events. Teacher candidates apply the skills necessary to develop a social studies unit plan that is standards-based and data-driven. Candidates are also given the opportunity to deliver instruction and evaluate their professional practice. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ECE-230.

ECE-501: Introduction to Early Childhood Foundations and Graduate Studies 3 credits

This course begins by acquainting teacher candidates with the GCU learning management system, while preparing them to be successful graduate-level students and future Early Childhood educators. Teacher candidates survey the philosophical and historical foundations upon which early childhood educational theories and practices are constructed. Current educational models, including the Montessori education model, are explored. Teacher candidates examine the application of theories to the early childhood classroom and evaluate their contemporary usefulness in supporting children's academic achievement, brain development, and social and emotional growth through early childhood. Practicum/field experience hours: None. Fingerprint clearance not required.

ECE-510: Typical and Atypical Behaviors of Young Children 3 credits

Teacher candidates survey how young children grow and develop, recognizing that patterns of learning and development vary individually across the cognitive, linguistic, physical, social, and emotional areas while understanding the implications for designing and implementing developmentally appropriate and challenging learning experiences. This survey of the seminal concepts, principles, theories, and research related to development of young children will allow teacher candidates to build foundational knowledge for constructing differentiated learning opportunities that support individual students' development, acquisition of knowledge, and motivation. Teacher candidates review atypical development, early intervention, and Parts A and B of IDEA to develop IFSP, IEPs, and 504s for young children. Practicum/field experience hours: None. Fingerprint clearance not required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECE-520: Instructional Planning, Assessment and Reporting in Early Childhood 3 credits

Teacher candidates obtain a robust view of the learning cycle of teaching, which includes assessment, evaluation, data analysis, reflection, and next steps, to develop lessons aligned to state and national standards. Data are used to assess, monitor, and report the progress of young children. Teacher candidates analyze and integrate multiple methods of assessment that support monitoring student progress and guiding decision making. Assessment and instruction will support foundational knowledge regarding the importance of planning instruction based on the knowledge of students, learning theory, connection across the curriculum, curricular goals, with focused attention on formative and summative assessment. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-530: Health, Safety, and Nutrition in Growth and Development of Early Learners 3 credits

Teacher candidates explore child growth and development, including developmental milestones that must be met with regards to physical, cognitive, and social-emotional development, as well as adaptability and approaches to learning for young children. This course emphasizes safety, health, and nutrition with a focus on the special health care needs for young children. Aspects of physical development, including fitness and movement, gross and fine motor skills, and fostering physical development within the community are discussed. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-540: Developing Language and Early Literacy in Young Children 3 credits

This course examines the foundations for early language development in young children. Teacher candidates build knowledge regarding whole language, phonics, emergent literacy, and the integration of literary elements. Teacher candidates focus on the assessment of literacy abilities, meeting the literacy needs of small groups, and literacy in the classroom and at home. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-560: Family Engagement and Cultural Awareness in Early Childhood 3 credits

Teacher candidates examine the family, community, and cultural influences that affect young children. Teacher candidates identify factors that put young children at risk as well as resources to support various types of families and structures. Teacher candidates also identify ways to meet community needs while promoting cultural awareness and competence. Practicum/field experience hours: 10. Fingerprint clearance required.

ECE-600: Creating and Managing the Early Childhood Environment 3 credits

Teacher candidates use the guidance approach to create environments that support individual and collaborative learning, encourage positive social interaction, facilitate active engagement in learning, and promote self-motivation. Montessori classroom management philosophies are explored. Teacher candidates develop skills related to establishing and maintaining organized, safe, inclusive, respectful, challenging, and positive early childhood environments with rules and expectations that are clearly communicated. Teacher candidates also examine how to help students overcome challenging behavior and learn from mistakes. Practicum/field experience hours: 15. Fingerprint clearance required.

ECE-620: Instructional Methodologies: Language Arts and the Creative Arts 3 credits

Teacher candidates examine a variety of instructional strategies that encourage young children to build reading, writing, and oral language skills in meaningful ways. Emphasis is placed on integrating the creative arts throughout language arts curriculum that teacher candidates will develop, teach, and assess. Candidates will also gather and analyze performance data to make instructional decisions. In addition, teacher candidates will build skills to integrate math, science, and social studies into language arts lessons while strengthening literacy connections at home. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ECE-520 and ECE-540.

ECE-630: Instructional Methodologies: Mathematics 3 credits

Teacher candidates research instructional methodologies for teaching mathematics to young children. Emphasis is placed on hands-on and inquiry- and manipulative-based learning in mathematics curriculum that teacher candidates will develop, teach, and assess. Candidates will also gather and analyze performance data to make instructional decisions. In addition, teacher candidates will build skills to integrate literacy, science, social studies, and the creative arts into mathematics lessons while strengthening mathematical connections at home. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ECE-520 and ECE-540.

ECE-640: Instructional Methodologies: Science and Social Studies 3 credits

Teacher candidates research instructional methodologies for teaching science and social studies to young children. Emphasis is placed on inquiry-based learning and real-world connections to science and social studies curriculum that teacher candidates will develop, teach, and assess. Candidates will also gather and analyze performance data to make instructional decisions. In addition, teacher candidates will build skills to integrate literacy, mathematics, and the creative arts into science and social studies lessons while strengthening connections at home. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ECE-520 and ECE-540.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Early Childhood Education (ECH)

ECH-125: Foundations of Early Childhood 4 credits

This course focuses on the fundamental basis of the field of early childhood education, including historical and philosophical foundations, current practices, ethics, models of teaching, and application in early childhood settings. Professional preparation requirements and professional development opportunities for early childhood educators will be explored. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-130♦: Educational Psychology in Early Childhood 4 credits

This course focuses on theories of learning and motivation, including young children's physical, cognitive, and social-cultural development from Birth to Age 5/Pre-K and K to Age 8/Grade 3. Students apply the theories to the early childhood classroom and examine their contemporary usefulness in supporting children's academic achievement and emotional development through the early childhood years.

ECH-130HN♦: Educational Psychology in Early Childhood 4 credits

This course focuses on theories of learning and motivation, including young children's physical, cognitive, and social-cultural development from Birth to Age 5/Pre-K and K to Age 8/Grade 3. Students apply the theories to the early childhood classroom and examine their contemporary usefulness in supporting children's academic achievement and emotional development through the early childhood years.

ECH-135: Child Guidance, Management, and the Environment 4 credits

This course focuses on analyzing theories of child development, the components of positive classroom environments, and classroom management programs, including the framework for the Guidance Approach. Research is utilized to investigate the social, cultural, and familial contexts that influence learning and development. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-140: Technology in the Early Childhood Classroom 4 credits

This course provides future teachers the opportunity to examine and use technology in the 21st century for Birth to Age 5/Pre-K and K to Age 8/Grade 3 classrooms. Students develop a classroom technology plan designed to enhance and shape their teaching skills and knowledge to better utilize emerging technology. Fingerprint clearance not required.

ECH-220: Quality Practices for Typical and Atypical Behaviors of Young Children 4 credits

This course explores characteristics and quality practices for typical and atypical behaviors of young children. Differentiated instruction and evaluation measures are examined in relation to meeting the needs of all learners in Birth to Age 5/Pre-K and K to Age 8/Grade 3 classrooms. Practicum/field experience hours: 20. Observe and teach within two classrooms. Birth - Pre-K and K - 3rd grade Fingerprint clearance required.

ECH-235: Child Growth and Development: Health, Safety, Nutrition, and Fitness 4 credits

This course explores child growth and development - including health, safety, nutrition, and fitness - by examining the theories and domains associated with early childhood growth. Child, family, cultural, and community relationships are also investigated. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-325♦: Child, Family, Community, and Culture 4 credits

This course covers historical foundations, theories, and models of child development for the Birth to Age 5/Pre-K and K to Age 8/Grade 3 populations that specifically address diversity, multicultural assimilations, and human change. Practicum/field experience hours: None. Fingerprint clearance not required.

ECH-325HN♦: Child, Family, Community, and Culture 4 credits

This course covers historical foundations, theories, and models of child development for the Birth to Age 5/Pre-K and K to Age 8/Grade 3 populations that specifically address diversity, multicultural assimilations, and human change. Practicum/field experience hours: None. Fingerprint clearance not required.

ECH-335: Instructional Teaching Methodologies: Language, Math, Science, Social Studies, and the Arts 4 credits

This course examines instructional methodologies for teaching young children, with a specific emphasis on language, math, science, social studies, and the arts. Lesson plan models and national/state standards will be reviewed. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-340: Instructional Methodologies for Teaching: Language Arts 4 credits

This course examines instructional methodologies for teaching children Birth to Age 5/Pre-K and K to Age 8/Grade 3 with emphasis on literacy development and instruction. Practicum/field experience hours: 10. Fingerprint clearance required.

ECH-345: Instructional Methodologies for Teaching: Math 4 credits

This course examines instructional methodologies for teaching children Birth to Age 5/Pre-K and K to Age 8/Grade 3 with emphasis on math development and instruction. Practicum/field experience hours: 10. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECH-350: Instructional Methodologies for Teaching: Science 4 credits

This course examines instructional methodologies for teaching children Birth to Age 5/Pre-K and K to Age 8/Grade 3 with emphasis on science concepts. Practicum/field experience hours: 10. Fingerprint clearance required.

ECH-355: Instructional Methodologies for Teaching: Social Studies 4 credits

This course examines instructional methodologies for teaching children Birth to Age 5/Pre-K and K to Age 8/Grade 3 with emphasis on social studies instruction. Practicum/field experience hours: 10. Observe and teach within a classroom. Birth to Age 5/Pre-K and K to Age 8/Grade 3. Fingerprint clearance required.

ECH-360: Instructional Methodologies for Teaching: Arts 4 credits

This course examines instructional methodologies for teaching children Birth to Age 5/Pre-K and K to Age 8/Grade 3 with emphasis on the arts. Practicum/field experience hours: 10. Fingerprint clearance required.

ECH-425♦: Early Literacy Development 4 credits

This course looks at research in language and literacy development, with an emphasis on effective instructional strategies (such as phonemic awareness and decoding) in Birth to Age 5/Pre-K and K to Age 8/Grade 3. NAEYC Standards 1-5 are the focus of study. Practicum/field experience hours: None. Fingerprint clearance not required.

ECH-425HN♦: Early Literacy Development 4 credits

This course looks at research in language and literacy development, with an emphasis on effective instructional strategies (such as phonemic awareness and decoding) in Birth to Age 5/Pre-K and K to Age 8/Grade 3. NAEYC Standards 1-5 are the focus of study. Practicum/field experience hours: None. Fingerprint clearance not required.

ECH-430♦: Early Childhood Literature 4 credits

This course is a study of literature written for children Birth to Age 5/Pre-K and K to Age 8/Grade 3. There is an emphasis on the different genres, examining each one's characteristics and contexts for use. Relevant teaching strategies and learning activities pertaining to each genre are also explored. Other topics covered in this course include criteria for evaluating, analyzing, and selecting children's literature, the integration of literature across the curriculum, and the involvement of families. Fingerprint clearance not required.

ECH-440: Assessing, Monitoring, and Reporting Progress of Young Children 4 credits

This course provides the learner with a robust view of assessment, evaluation, and testing for Birth to Age 5/Pre-K and K to Age 8/Grade 3. The processes of assessing, monitoring, and reporting the progress of young children's performance are investigated as well as educated projections of how students are proceeding based on age/grade level standards. Areas of focus include the history and challenges of testing and the role of technology in assessment. Practicum/field experience hours: None. Fingerprint clearance not required.

ECH-440HN[‡]: Assessing, Monitoring, and Reporting Progress of Young Children 4 credits

This course provides the learner with a robust view of assessment, evaluation, and testing for Birth to Age 5/Pre-K and K to Age 8/Grade 3. The processes of assessing, monitoring, and reporting the progress of young children's performance are investigated as well as educated projections of how students are proceeding based on age/grade level standards. Areas of focus include the history and challenges of testing and the role of technology in assessment. Practicum/field experience hours: None. Fingerprint clearance not required.

ECH-480^Ω: Student Teaching: Birth to Pre-School 6 credits

Session A is one of two 8 week sessions of the student teaching experience. Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Performance of Evaluation (STEP). Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching. Fingerprint clearance required.

ECH-485^Ω: Student Teaching: K-3 6 credits

This course is the second of two 8-week sessions of the student teaching experience in a classroom. The student teacher is assigned to an approved school with a certified cooperating teacher, a university supervisor, and a Grand Canyon University course instructor. The course includes practical classroom experiences, research and analysis, and teaching duties that will support the compilation and creation of a Student Teaching Evaluation of Performance (STEP). The teacher candidates are required to complete their internship experiences in a K-3 classroom. Fingerprint clearance required.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ECH-485HN^Ω: Student Teaching: K-3 **6 credits**

This course is the second of two 8-week sessions of the student teaching experience in a classroom. The student teacher is assigned to an approved school with a certified cooperating teacher, a university supervisor, and a Grand Canyon University course instructor. The course includes practical classroom experiences, research and analysis, and teaching duties that will support the compilation and creation of a Teacher Work Sample (TWS). The teacher candidates are required to complete their internship experiences in a K-3 classroom. Prerequisites: Fingerprint clearance required; successful completion of all courses in POS and content area; senior status; a 2.8 GPA; successful completion of state mandated basic skills and content area exams or Praxis I® (Basic Skills) and Praxis II® (Content Area); and approval and placement by Office of Clinical Practice. Arizona residents will be required to take the Arizona Educator Proficiency Assessment (AEPA). All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

ECH-515: Early Literacy Development **4 credits**

This course reviews research in language and literacy development with an emphasis on effective strategies (such as phonemic awareness and decoding) in Birth to Age 5/Pre-K and K to Age 8/Grade 3. NAEYC Standards 1-5 will be the focus of study.

ECH-520: Foundations of Early Childhood **4 credits**

This course investigates the fundamental basis of the early childhood field, Birth to Age 5/Pre-K and K to Age 8/Grade 3, including historical and philosophical foundations, current practices, ethics, models of teaching, child growth and development, health and fitness, and application in early childhood settings. Professional preparation requirements and professional development opportunities for early childhood educators will be explored. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-525: Child Guidance, Management, and the Environment **4 credits**

This course focuses on analyzing theories of child development, Birth to Age 5/Pre-K and K to Age 8/Grade 3, the components of positive classroom environments, and classroom management programs, including the framework for the Guidance Approach. Research will be utilized to investigate the social, cultural and familial contexts which influence learning and development. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisite: ECH-520.

ECH-530: Introduction to the Exceptional Learner **4 credits**

This course explores characteristics and quality practices for typical and atypical behaviors of young children in the Birth-PK and K-3 populations. Differentiated instruction and evaluation measures will be examined in relation to meeting the needs of all learners. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-635: Developmental and Functional Assessment: Birth to Age 8 **4 credits**

This course leads the teacher through the process of assessing, monitoring, and reporting the progress of young children. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-640: Instructional Teaching Methodologies: Language, Math, Science, Social Studies, and the Arts **4 credits**

This course examines instructional methodologies for teaching young children, with a specific emphasis on language, math, science, social studies, and the arts. Practicum/field experience hours: 20. Fingerprint clearance required.

ECH-680^Ω: Student Teaching: Birth to Pre-School **6 credits**

Session A is one of two 8 week sessions of the student teaching experience. Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Evaluation of Performance (STEP). Fingerprint clearance required. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 3.0 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching. Fingerprint clearance required.

ECH-685^Ω: Student Teaching: K-3 **6 credits**

This course is the second of two 8-week sessions of the student teaching experience in a classroom. The teacher candidate is assigned to an approved school with a certified cooperating teacher, a university supervisor, and a student teaching course instructor. The course includes practical classroom experiences, research and analysis, and teaching duties that will support the compilation and creation of a Student Teaching Evaluation of Performance (STEP). The teacher candidates are required to complete their internship experiences in a K-3 classroom. Fingerprint clearance required.

Economics (ECN)

ECN-220[♦]: Introduction to Economics **4 credits**

The course covers microeconomic topics, macroeconomic topics, and international economics topics. Microeconomic topics include the nature and method of economics, supply and demand, utility, and supply and demand elasticities. Macroeconomic topics include the measurement of national output, factors that impact output, other means of measuring national wealth and economic well-being, unemployment, inflation, GDP accounting, and business cycles. While the focus of this course is primarily on the U.S. economy, some comparative economic analysis will be covered. In addition, select topics related to international trade and finance are introduced.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECN-220HN♦: Introduction to Economics 4 credits

The course covers microeconomic topics, macroeconomic topics, and international economics topics. Microeconomic topics include the nature and method of economics, supply and demand, utility, and supply and demand elasticities. Macroeconomic topics include the measurement of national output, factors that impact output, other means of measuring national wealth and economic well-being, unemployment, inflation, GDP accounting, and business cycles. While the focus of this course is primarily on the U.S. economy, some comparative economic analysis will be covered. In addition, select topics related to international trade and finance are introduced.

ECN-220XV: Introduction to Economics 4 credits

The course covers microeconomic topics, macroeconomic topics, and international economics topics. Microeconomic topics include the nature and method of economics, supply and demand, utility, and supply and demand elasticities. Macroeconomic topics include the measurement of national output, factors that impact output, other means of measuring national wealth and economic well-being, unemployment, inflation, GDP accounting, and business cycles. While the focus of this course is primarily on the U.S. economy, some comparative economic analysis will be covered. In addition, select topics related to international trade and finance are introduced.

ECN-351♦: Essentials of Economics 4 credits

This survey course covers the basic concepts of microeconomics and macroeconomics. The course begins by addressing the fundamental concepts of scarcity, choice, opportunity cost, and comparative advantage. The course builds on these fundamentals to explain the market forces of supply and demand, market efficiency, the economics of the public sector, and the firm's behavior under competitive market conditions. The second half of the course focuses on basic macroeconomic concepts, including measurement of national incomes, economic growth, and productivity. In addition, this course covers the monetary system and the classical theory of inflation.

ECN-351HN♦: Essentials of Economics 4 credits

This survey course covers the basic concepts of microeconomics and macroeconomics. The course begins by addressing the fundamental concepts of scarcity, choice, opportunity cost, and comparative advantage. The course builds on these fundamentals to explain the market forces of supply and demand, market efficiency, the economics of the public sector, and the firm's behavior under competitive market conditions. The second half of the course focuses on basic macroeconomic concepts, including measurement of national incomes, economic growth, and productivity. In addition, this course covers the monetary system and the classical theory of inflation. Prerequisites: ACC-240 and BUS-352.

ECN-360♦: Intermediate Economics 4 credits

This course focuses on microeconomic principles and techniques of analysis from the perspective of the firm and the study of the national economy. Topics include the costs of production, market structures, profit maximization, regulation and deregulation of business, labor markets, GDP and measures of economic well-being, national income accounting, the effects of business cycles, an overview of fiscal, monetary and supply side policies, and role of money, banks, and the Federal Reserve System in the United States. Prerequisite: ECN-220.

ECN-361♦: Microeconomics 4 credits

This course focuses on the fundamental ideas of microeconomics. Students examine the market forces of supply and demand under different market structures in order to understand how economic agents make decisions about both consumption and production. The structure, conduct, and performance of markets are evaluated through analysis of consumer, producer, and societal welfare. Students explore the topic of factor markets in which the incomes of most workers and owners of capital and property are determined. Prerequisites: ACC-240 or ACC-250 and BUS-352.

ECN-361HN♦: Microeconomics 4 credits

This course focuses on the fundamental ideas of microeconomics. Students examine the market forces of supply and demand under different market structures in order to understand how economic agents make decisions about both consumption and production. The structure, conduct, and performance of markets are evaluated through analysis of consumer, producer, and societal welfare. Students explore the topic of factor markets in which the incomes of most workers and owners of capital and property are determined. Prerequisites: ACC-240 or ACC-250 and BUS-352.

ECN-362♦: Macroeconomics 4 credits

This course focuses on the national economy by examining macroeconomic data measuring national income, the cost of living, production and growth, and unemployment. Students examine the basic functions of the monetary system and analyze the macro economy in terms of long-run economic productivity and growth and in terms short-run fluctuations. The influence and effect of macroeconomic policy is studied within the context of current events. Prerequisite: ECN-361.

ECN-449♦: A Poverty of Nations 2 credits

This course will review economic systems, government laws and policies, and national cultural values and beliefs. The course will address alleviating poverty in poor countries through the lens of economics and a Christian worldview.

ECN-450♦: International Trade and Finance 4 credits

This course provides a study of interrelationships between the international monetary environment and financial planning for corporations with overseas operations. The topics covered include the international monetary system, the foreign exchange market, managing exchange exposure, political risk management, import/export financing, and international performance evaluation. Prerequisite: FIN-350.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECN-460[♦]: Economics of Money, Banking, and Financial Markets 4 credits

This course is an overview of the modern monetary system as the informal infrastructure for a dynamic and decentralized global economy. Students examine this system by looking at a variety of markets where deal-making activities take place between central banks, traditional banks, and "near banks" that act as deal-makers in both capital and money markets by supplying liquidity to the system. Innovative central bank policies and activities intended to stabilize the system are discussed. Prerequisites: ECN-362 and FIN-350.

ECN-601: Economics 4 credits

This course introduces microeconomic and macroeconomic concepts that are relevant to contemporary business. Emphasis is placed on using economic data for business decision making.

ECN-630: Growth Strategy Through Merger and Acquisition 4 credits

This course examines the opportunities and challenges inherent in mergers, acquisitions, partnerships, and other types of strategic alliances. There is a focus on financial viability and integration issues involved in merger and acquisition activities. Students learn to critically analyze costs, risks, and potential gains of such growth strategies. Organic growth strategies are presented along with a framework for determining when and where to pursue organic versus external growth options. Predatory versus collaborative growth strategies are also examined.

Early Childhood Special Education (ECS)

ECS-125^{Ω♦}: Foundations of Early Childhood and Special Education 4 credits

This course focuses on the fundamental basis of the field of early childhood education and early childhood special education. This course includes historical and philosophical foundations, current practices, ethics, models of teaching, and application in early childhood/special education settings. Professional responsibilities for early childhood/early childhood special education educators are explored. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-220^{Ω♦}: Legal Aspects of Special Education with an Emphasis in Early Childhood 4 credits

This course examines the history of current special education laws, and professional practices. Emphasis is placed on Child Find, assessment, identification, and implementation of services. Candidates also incorporate data-based decision making and utilization of assistive technology in instruction. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-235^{Ω♦}: Child Development Including Health, Safety, and Nutrition 4 credits

This course examines child growth and development, including milestones regarding physical, cognitive, and social-emotional development. This development is considered within the context of health, safety, and nutrition for young children with and without exceptionalities. Family education and communication are also emphasized. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-320^{Ω♦}: Child Guidance and Classroom Management for Typical and Atypical Behaviors 4 credits

This writing intensive course uses theories of child guidance and development for young children with and without exceptionalities as a basis for creating a safe and supportive classroom environment. Candidates create a classroom management plan and use student data to create a Behavioral Intervention Plan (BIP). The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-320HN^{Δ♦}: Child Guidance and Classroom Management for Typical and Atypical Behaviors 4 credits

This writing intensive course uses theories of child guidance and development for young children with and without exceptionalities as a basis for creating a safe and supportive classroom environment. Candidates create a classroom management plan and use student data to create a Behavioral Intervention Plan (BIP). The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-325^{Ω♦}: Child, Family, Cultural, Community Relationships, and Advocacy 4 credits

This course explores historical foundations, theories, and models of child development, including family characteristics, diversity, multicultural factors, and community relationships. The course emphasizes community organizations that support and assist children with exceptionalities and their families. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-425^{Ω♦}: Language, Literacy and Communication in Early Childhood/Special Education 4 credits

This course explores the foundations for early language and literacy development for children Birth to Age 8/Grade 3. Teacher candidates focus on the essential components of literacy and communication methods in early childhood special education, utilizing assistive technology to enhance communication. Practicum/field experience hours: None. Fingerprint clearance not required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECS-435^Ω: Assessment, Evaluation and Reporting for Early Childhood/Special Education 4 credits

In this course, teacher candidates examine assessment, evaluation, and early identification for young children to develop IFSP's and IEP's, Birth to Age 8. The processes of using data in assessing, monitoring, and reporting the progress of young children's performances are investigated, in addition to early identification of children with special needs. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-435HN^Δ: Assessment, Evaluation and Reporting for Early Childhood/Special Education 4 credits

In this course, teacher candidates examine assessment, evaluation, and early identification for young children to develop IFSP's and IEP's, Birth to Age 8. The processes of using data in assessing, monitoring, and reporting the progress of young children's performance are investigated, in addition to early identification of children with special needs. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-450^Ω: Developmentally Appropriate Instruction: ELA, Social Studies, and Arts 4 credits

This course examines instructional methodologies for teaching children with and without exceptionalities, emphasizing instruction in language arts, social studies, and the arts. Candidates consider the developmental continuum of literacy instruction based on student data and individual needs. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-455^Ω: Developmentally Appropriate Instruction: STEM Subjects 4 credits

This course examines instructional methodologies for teaching children with and without exceptionalities with an emphasis on STEM (science, technology, engineering, and math) content instruction. Candidates develop a unit plan that incorporates all STEM components and use data to identify areas to differentiate instruction to meet the needs of individual students. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-455HN^Δ: Developmentally Appropriate Instruction: STEM Subjects 4 credits

This course examines instructional methodologies for teaching children with and without exceptionalities with an emphasis on STEM (science, technology, engineering, and math) content instruction. Candidates develop a unit plan that incorporates all STEM components and use data to identify areas to differentiate instruction to meet the needs of individual students. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-460^Ω: Birth – Pre-K Practicum I 4 credits

Teacher candidates spend time in an inclusive Birth-Pre-K setting observing, working with small groups of children with and without exceptionalities, and interviewing teachers. Emphasis will be placed on the management and guidance of young children, and child initiated learning. Special attention is given to the effect of children's abilities, social and emotional needs, and characteristics on development and learning across the span of birth through age 2. The practicum/field experiences for this course are in a general education or inclusive Birth - Pre-K setting. Practicum/field experience hours: 60. Fingerprint clearance required.

ECS-470^Ω: Birth – Pre-K Practicum II 4 credits

Teacher candidates spend time in an inclusive Birth-Pre-K setting observing, working with small groups, and teaching. Emphasis will be placed on individual education planning, implementing, and evaluating developmentally appropriate curricula, instruction, and adaptations based on knowledge of children with exceptionalities, the family, and the community. Special attention is placed on exceptionalities and medical conditions that influence care, resources, and priorities for children ages 2 through 4. The practicum/field experiences for this course are in an inclusive or developmental Birth – Pre-K setting. Practicum/field experience hours: 60. Fingerprint clearance required.

ECS-480A^Ω: Student Teaching- Kindergarten to Age 8/Grade 3: General Education Setting 6 credits

Session A is one of two 8 week sessions of the student teaching experience. Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Performance of Evaluation (STEP). Fingerprint clearance required.

ECS-480B^Ω: Student Teaching- Kindergarten to Age 8/Grade 3: Special Education Setting 6 credits

This course supports the early childhood special education clinical field experience through an eight-week full-time student teaching experience in a kindergarten through age 8/grade 3 early childhood special education classroom. Candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of an Individualized Education Program (IEP) Performance Template. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECS-501^Ω: Foundational Studies in Early Childhood and Special Education 3 credits

This course begins by acquainting candidates with the GCU learning management system, while preparing them to be successful graduate-level students and future teachers. The course places primary focus on the fundamental basis of the field of early childhood education and early childhood special education, Birth to Age 5/Pre-K to K to Age 8/Grade 3, including historical and philosophical foundations, current practices, ethics, models of teaching, and application in early childhood education/early childhood special education settings. Additionally, professional preparation requirements and professional development opportunities in the field are explored. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-550^Ω: Child Guidance and Classroom Management for Typical and Atypical Behaviors 3 credits

Teacher candidates research theories of child development and consider the characteristics of young children with and without exceptionalities and how they manifest in the classroom. The course emphasizes social/emotional development and behavioral/crisis intervention, with a focus on evidence-based practices for creating safe, inclusive, respectful, challenging, and positive classroom environments. Candidates create a classroom management plan and use student data to create a Behavioral Intervention Plan (BIP). The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-555^Ω: Child Development Including Health, Safety, and Nutrition 3 credits

This course explores child growth and development, including developmental milestones that must be met with regards to physical, cognitive, and social-emotional development. The course emphasizes health, safety, and nutrition with a focus on special health care needs for young children. The candidate will use data to analyze the development of the whole child and consider best practices for family involvement. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-560^Ω: Child, Family, Cultural, Community Relationships, and Advocacy 3 credits

This course examines historical foundations, theories, and models of child development, including family characteristics, diversity, multicultural factors, and community relationships. Teacher candidates identify community organizations that support children with exceptionalities and their families. Candidates also identify ways to use those resources to advocate for children and their families. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-565^Ω: Birth – Pre-K Practicum I 4 credits

Teacher candidates spend time in an inclusive Birth-Pre-K setting observing, working with small groups of children with and without exceptionalities, and interviewing teachers. Emphasis will be placed on the management and guidance of young children, and child initiated learning. Special attention is given to the effect of children's abilities, social and emotional needs, and characteristics on development and learning across the span of birth through age 2. The practicum/field experiences for this course are in a general education or inclusive Birth – Pre-K setting. Practicum/field experience hours: 60. Fingerprint clearance required.

ECS-567^Ω: Birth – Pre-K Practicum II 4 credits

Teacher candidates spend time in an inclusive Birth-Pre-K setting observing, working with small groups, and teaching. Emphasis will be placed on individual education planning, implementing, and evaluating developmentally appropriate curricula, instruction, and adaptations based on knowledge of children with exceptionalities, the family, and the community. Special attention is placed on exceptionalities and medical conditions that influence care, resources, and priorities for children ages 2 through 4. The practicum/field experiences for this course are in an inclusive or developmental Birth – Pre-K setting. Practicum/field experience hours: 60. Fingerprint clearance required.

ECS-570^Ω: Language, Literacy, and Communication in Early Childhood/Special Education 3 credits

This course examines the foundations for early language development for children, from Birth to Age 8/Grade 3. Teacher candidates focus on the use of technology with receptive and expressive language, early literacy development, and communication methods in early childhood education/early childhood special education. Practicum/field experience hours: None. Fingerprint clearance not required.

ECS-580^Ω: Developmentally Appropriate Instruction: ELA, Social Studies, and Arts 3 credits

Teacher candidates examine how to teach foundational skills to develop proficient readers with the capacity to comprehend texts across a range of texts and disciplines. This course examines instructional methodologies for teaching children with and without exceptionalities with an emphasis on language arts, social studies, and the arts instruction. Candidates use data to differentiate instruction to meet the individual needs of students. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ECS-585^Ω: Developmentally Appropriate 3 credits
Instruction: STEM Subjects

Teacher candidates research instructional methodologies to include inquiry-based and hands-on learning for teaching children with and without exceptionalities with an emphasis on STEM content (science, technology, engineering, and math) instruction. Candidates use data to differentiate learning outcomes to meet the needs of individual students, and develop a unit plan that incorporates all STEM components. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-590^Ω: Assessment, Evaluation, and 3 credits
Reporting for Early
Childhood/Special Education

This course provides teacher candidates with a robust view of assessment, evaluation, and early identification for young children to develop IFSPs and IEP's, Birth to Age 8. Data are used to assess, monitor, and report the progress of young children, to include early identification of children with special needs. The practicum/field experiences for this course are in an inclusive K-3 setting. Practicum/field experience hours: 20. Fingerprint clearance required.

ECS-595A^Ω: Student Teaching- Kindergarten to 6 credits
Age 8/Grade 3: General Education
Setting

This course supports the early childhood clinical field experience through an eight-week full-time student teaching experience in a kindergarten through age 8/grade 3 general education classroom. Candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Teacher Work Sample (TWS). Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 3.0 GPA; successful completion of state mandated basic skills and content area exams; and approval and placement by Office of Field Experience. Arizona residents will be required to take the Arizona professional knowledge and subject knowledge exams for Early Childhood and Early Childhood Special Education. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

ECS-595B^Ω: Student Teaching- Kindergarten to 6 credits
Age 8/Grade 3: Special Education
Setting

This course supports the early childhood special education clinical field experience through an eight week full-time student teaching experience in a kindergarten through age 8/grade 3 early childhood special education classroom. Candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of an Individualized Education Program (IEP) Performance Template. Fingerprint clearance required.

EDL-609: Superintendent Internship 3 credits

This internship is designed to provide candidates interested in PK-12 district office leadership meaningful learning experiences needed to prepare for PK-12 district leadership positions. Designated field experience opportunities include orientation to district office organization, responsibilities of the superintendent, district office organizational structure, district governance, community relations, and personnel development. Practicum/field experience hours: 90. Fingerprint clearance required.

EDL-805: Training and Collaboration for 3 credits
Learning

Clearly, instructional leadership today is driven to a great extent by the capacity to lead teaming and collaboration. This course will explore the leadership required to support teaming at all levels. For example, horizontal teams are required in schools today in order to be thoughtful about the instructional leadership decisions that must be made on a consistent basis. This requires strategic grade-level collaboration that helps to ensure horizontal alignment of the curriculum and consistency in instructional practice. Furthermore, vertical collaboration includes teachers and administrators from different levels—perhaps from central office, etc.—all working together toward instituting a more comprehensive implementation of the instructional plan. This exploration will include an examination of Professional Learning Communities and the mechanisms used to make this reform model successful.

EDL-807: History and Politics of K-12 3 credits
Education

This course provides a broad, global overview of the history and politics of K-12 education and examines the political landscape and ethics surrounding K-12 education. A brief overview of governmental interventions is also presented. Prerequisite: RES-850.

EDL-810: Staff Development and Deep 3 credits
Organizational Learning

Leaders today must be comprehensively cognizant of the steps they can take to lead deep organizational learning. Specifically, the evolution of brain research, adult learning theory, and the exploration of contemporary conventions on leading learning organizations have given us new insights into the tools we need to help adult learners make their learning organization as thoughtful and forward-thinking as possible. This course will, therefore, explore contemporary leadership strategies associated with adult learning theory and talk about the steps leaders can take to ensure that their school is leading the learning in the most effective way possible.

EDL-812: Governance and Structures in K-12 3 credits
Education

This course examines internal and external governance and structures in K-12 education. The course emphasizes analysis of the leadership practices necessary to guide construction of appropriate internal and external frameworks. Prerequisite: RES-850.

Instructional Leadership (EDL)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EDL-815: Systematic Structures for 3 credits
Innovation and Change

This course will specifically examine the change process from a systemic standpoint. Clearly, there are a number of sources for innovation, change, and growth in any school. Included in this exploration will be topics related to teacher leadership, the use of collaboration in Professional Learning Communities, and the connection between district-level strategic planning processes and the steps schools can take to lead innovation and change from the building level. Examining the points wherein these systems connect and ultimately emerge represents a major focal point of the course.

EDL-817: Building a K-12 Community 3 credits

This course examines relations with K-12 education stakeholders, including boards, learners, parents, faculty, staff, and the community at large. Attention is given to creating and sustaining a diverse learning infrastructure through faculty and staff professional development, alumni relations, and the building of a learning community. Prerequisite: RES-861 or EDL-861.

EDL-820: The Systematic Use of Data for 3 credits
Innovation and Change

Data today clearly drives how we think about school improvement and change. The strategic and appropriate use of data allows us to be much more thoughtful about where we have been, our current levels of progress, and the steps we should take moving forward to continue to influence these most essential results. This course will focus on the leader's role in identifying the appropriate data sets and the mechanisms that can be put into place to consistently evaluate data streams and be thoughtful about their exploration and deep-level analysis.

EDL-822: Trends and Issues in K-12 3 credits
Education

This course examines the current and emerging leadership strategies and classroom practices in K-12 education. Topics are placed in the context of improved student outcomes. Prerequisite: RES-861.

EDL-825: Prevention and Intervention 3 credits
Strategies

Throughout the instructional leadership program, learners will examine the steps leaders can take to be thoughtful about their instructional planning processes and the influencers on that process. This course focuses on what leaders must do when they identify learning challenges in the system and the steps they must take from an instructional planning standpoint to both prevent learning failure and, at times, intervene in response to failure that is happening within the delivery of the instructional plan. This is an often neglected step in the instructional process, in that schools may develop change initiatives without being thoughtful as to what they will do when a cadre of students are not successful in the process. Preventing learning failure and intervening when those failures emerge is an essential aspect of instructional leadership and will be explored in this course.

EDL-827: Strategic Planning in K-12 3 credits
Education

This course addresses the establishment of a shared mission, vision, and goals among both internal and external stakeholders as the foundation for long-range strategic planning in K-12 education. Professional and facilities development is addressed in the context of K-12 education master planning.

EDL-861^A: Analysis of Educational Research 3 credits

This course is designed to train learners in the conduct of a systematic literature review related to their research topic or area of interest. Emphasis is placed on creating structure for reading, analyzing, synthesizing, and organizing prior research for educational purposes.

EDL-910: EDS Capstone 3 credits

This capstone course provides learners the opportunity to apply skills related to their professional interests and goals. Learners demonstrate competency through the development of a written project suitable for inclusion in a professional portfolio.

Education (EDU)

EDU-210: Foundations of Education 4 credits

This course is designed to provide an overview of the education profession for students who are inspired to be teachers. A brief survey of the philosophical, historical, and sociological influences upon which educational theories and practices are constructed is presented. Students explore a variety of the common issues, trends, and opportunities that professional educators face in the field. Fingerprint clearance not required.

EDU-213[♦]: Educational Psychology 4 credits

This course provides a thematically arranged study of the theories and principles of psychology that have influenced instructional practices. Behavioral and cognitive approaches to learning, motivation, and instruction are explored. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-213HN[♦]: Educational Psychology 4 credits

This course provides a thematically arranged study of the theories and principles of psychology that have influenced instructional practices. Behavioral and cognitive approaches to learning, motivation, and instruction are explored. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-215^A: Education Foundations and 4 credits
Framework

This writing intensive course provides a study of the historical, philosophical, and sociological influences that have shaped American education; the issues faced by educators today; and the challenges of the future that await people now entering the teaching profession. Fingerprint clearance not required.

^A Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EDU-225: Instructional Technology 4 credits

This course provides future teachers the opportunity to examine the use of technology in the 21st century classroom. In addition to studying and utilizing a variety of technologies, such as computer software and hardware, students develop a personal technology philosophy and classroom technology plan designed to enhance and shape their teaching skills and knowledge to better utilize emerging technology. Fingerprint clearance not required.

EDU-230♦: Cultural Diversity in the Classroom 4 credits

This course examines the relationship of cultural values to the formation of self-concept and learning styles. The roles of prejudice, stereotyping, and cultural incompatibilities in education are also evaluated. Fingerprint clearance not required.

EDU-313N♦: Educational Psychology 3 credits

This course provides a thematically arranged study of the theories and principles of psychology that have influenced instructional practices. Behavioral and cognitive approaches to learning, motivation, and instruction are explored. Fingerprint clearance not required.

EDU-315♦: Family and Community in a Supportive Learning Environment 3 credits

In this course, candidates will identify the value family relationships and the community environment contribute to the classroom environment. Emphasis is placed on building relationships with families, caregivers, and other stakeholders in order to influence children, build productive learning environments, and create a positive culture for schools. Focus is placed on creating an inviting atmosphere for families and caregivers, and an inclusion of community organizations and businesses to support this family connection. Candidates research ways to utilize community resources to empower families and include them in communication, learning, and collaborative opportunities that foster a healthy home and school connection. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-330A♦: Social Justice for Educators 4 credits

In this writing intensive course, teacher candidates study how to teach a diverse population of students by examining the foundations and dimensions of social justice in education, social constructs, privilege, prejudice, and oppression with the goal of becoming culturally competent educators. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-330HN^Δ♦: Social Justice for Educators 4 credits

In this writing intensive course, teacher candidates study how to teach a diverse population of students by examining the foundations and dimensions of social justice in education, social constructs, privilege, prejudice, and oppression with the goal of becoming culturally competent educators. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-354: Child Development: Prenatal to Adolescence 4 credits

In this course, candidates identify the developmental milestones of children, prenatal to adolescence. Students examine the progression of these milestones in all areas of development, including psychological, social, emotional, linguistic, cognitive, and physical. Additional focus is placed on typical and atypical child development, and analyzing the effects of environment, trauma, and family dynamics on the development progression. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-410: Bullying 1 credits

This course will assist educators in identifying and recognizing strategies to proactively guide and prevent the possible harmful effects of bullying, including cyber bullying, verbal harassment, and physical harassment. The course is intended to increase awareness and the effects inside and outside the classroom.

EDU-450: Classroom Engagement and Management 4 credits

This course is designed to allow prospective teachers the opportunity to learn techniques involved in the successful engagement and management of a learning environment. Major emphasis is given to the establishment of a realistic discipline plan to manage student behavior, as well as engagement and management techniques and strategies to maximize instructional time, classroom procedures, and physical space with consideration of diverse populations and environments. Prerequisites: EDU-230, and either EDU-210 or EDU-215.

EDU-450HN^Δ: Classroom Engagement and Management 4 credits

This course is designed to allow prospective teachers the opportunity to learn techniques involved in the successful engagement and management of a learning environment. Major emphasis is given to the establishment of a realistic discipline plan to manage student behavior, as well as engagement and management techniques and strategies to maximize instructional time, classroom procedures, and physical space with consideration of diverse populations and environments. Prerequisites: EDU-230, and either EDU-210 or EDU-215.

EDU-455: Christian Education: Philosophies and Methods 4 credits

This course is an introduction to the philosophy, theory, and practice of teaching in Christian schools. A basic analysis of educational philosophies within the framework of a Christian worldview is central to the course. Candidates construct a personal and guiding philosophy of Christian education incorporating biblical principles, and develop lesson plans using biblical integration and perspectives. Candidates may also have an opportunity to participate in observing and delivering instruction in an ACSI or CCSC approved K-12 education setting. This course provides required components as a part of the ACSI certification application process. Practicum/field experience hours: 10. Fingerprint clearance required.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

EDU-465♦: Faith in Learning, Leading and Serving 4 credits

This course provides students with an opportunity to consider the integration of their faith with their work and vocation. Students will consider their own meaning of faith, the interaction of their chosen field with the integration of faith through learning, leading, and serving. Students will develop a project/plan that will allow them to synthesize these skills through the development and implementation of a project or plan that utilizes these resources gained while in the educational studies program. Students complete on-site work in non-traditional settings that allow them to integrate faith in learning, leading, and serving. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area.

EDU-470: Research-Based Methods and Strategies of Teaching Mathematics 4 credits

Teacher candidates will examine a variety of instructional strategies to encourage learners to develop deep understanding of the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability and to build skills to apply knowledge in meaningful ways. From this foundational knowledge, teacher candidates select, adapt and use research-based instructional strategies and interventions to advance the learning of students with focused attention upon mathematics. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ELM-210.

EDU-480: Research-Based Methods and Strategies of Teaching English Language Arts 4 credits

Teacher candidates will build foundational knowledge on how to the use concepts from reading, language, and child development to teach reading, writing, speaking, viewing, listening, and thinking skills. Teacher candidates select, adapt and use research-based instructional strategies and interventions to individualize meaningful and challenging learning for students, with an emphasis on literacy. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ELM-210 and ELM-305.

EDU-480HN[‡]: Research-Based Methods and Strategies of Teaching English Language Arts 4 credits

Teacher candidates will build foundational knowledge on how to the use concepts from reading, language, and child development to teach reading, writing, speaking, viewing, listening, and thinking skills. Teacher candidates select, adapt and use research-based instructional strategies and interventions to individualize meaningful and challenging learning for students, with an emphasis on literacy. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ELM-210 and ELM-305.

EDU-518: Introduction to Student Affairs 3 credits

Candidates survey the responsibilities and functions of the departments of student affairs in a higher education setting. This survey includes developing a broad understanding of how foundational knowledge of the theories of student affairs apply to the functioning of student affairs on a higher education campus. Focus is placed on the scope and delegation of the functions of student affairs, and the responsibilities of student affairs professionals. Practicum/field experience hours: None. Fingerprint clearance not required. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-522: Curriculum Design Theories 3 credits

Candidates will be introduced to current theories of learning and approaches to curriculum design. The emphasis will be on examining and identifying the concepts, principles, and models of curriculum design. Candidates will evaluate curriculum based on learning theories and approaches to curriculum.

EDU-524: Culturally Responsive Curriculum and Instruction 3 credits

Candidates will examine frameworks, materials, and strategies for translating the principles of culturally responsive pedagogy into effective educational practice. The emphasis will be on developing curriculum considering culturally responsive pedagogy, family and community engagement, and global education. Practicum/field experience hours: 10. Seek out instructional specialists at the school or district level that have insight into what professional development is available and how the topics are chosen. K-12. Fingerprint clearance required.

EDU-525^Ω: Foundations in Elementary Education Graduate Studies 3 credits

Teacher candidates prepare for the graduate learning experience at Grand Canyon University by developing and strengthening the skills necessary to succeed as graduate students in the College of Education. Teacher candidates survey the philosophical, historical, and sociological influences upon which educational theories and practices are constructed and explore a variety of the common issues, trends, and opportunities that professional educators face in the field. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-526: Family and Community Engagement 3 credits

In this course, candidates explore how issues related to family relationships and community environments influence classroom dynamics. Emphasis is placed on promoting an equal partnership between families and schools to make collaborative decisions that support student learning outcomes and school policies, practices, and programs. Candidates explore how to create a welcoming classroom and school atmosphere where families feel valued, connected to the school staff, and engaged in the education of their children. Candidates also investigate strategies for collaborating with community resources that can assist families and schools to foster a healthy home and school connection. Practicum/field experience hours: None. Fingerprint clearance not required.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

EDU-528: Laws and Ethics in Student Affairs 3 credits

In this course, candidates examine laws applicable to higher education, including HIPPA, FERPA, Title IX, and ADA. Coursework focuses on ethical application of laws and policies in the higher education setting as well as preparing to navigate ethical decision making in a Higher Education Student Affairs setting. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-534: Effective Pedagogy for Higher Education 4 credits

This foundational course covers adult learning theory and pedagogical practices that are research-based and proven effective in higher education. Technology, distance learning, and effective pedagogy for online and traditional instruction are emphasized. Candidates research learning paradigms, personalized learning, and andragogy and are asked to apply their knowledge through situational case studies.

EDU-535: Foundations in Special Education Graduate Studies 3 credits

Teacher candidates will survey the philosophical, historical, and sociological influences upon which educational theories and practices are constructed and explore a variety of the common issues, trends, and opportunities that professional educators face in the field. Teacher candidates will prepare for the graduate learning experience at Grand Canyon University by developing and strengthening the skills necessary to succeed as graduate students in the College of Education. Practicum/field experience hours: 6. Fingerprint clearance not required.

EDU-537: Leadership and Instructional Coaching 3 credits

Candidates will apply coaching techniques in academic and professional settings. Emphasis is placed on improving professional practices, workplace culture, and effective communication. Candidates will focus on professional coaching and leadership skills. Practicum/field experience hours: 10. Fingerprint clearance required.

EDU-538: Servant Leadership in Student Affairs 3 credits

In this course, candidates focus on servant leadership in the area of higher education student affairs, and examine how this connects to ethics, accountability, and being a responsible leader. Candidates will learn to lead with kindness, compassion and justice for the good of all stakeholders within the campus community. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-546: Curriculum Mapping 3 credits

Candidates develop year-long units of study based on identified goals and professional standards. Curriculum mapping analysis skills will be developed to align program objectives systematically to achieve learning goals. Emphasis is placed on backwards design and inquiry-based learning. Practicum/field experience hours: 10. Fingerprint clearance required.

EDU-547: Student Development 3 credits

This course examines theories of student development and multicultural diversity. Candidates will develop programming to engage students in building and maintaining university community, and to promote individual self-efficacy that meets the needs of students from diverse backgrounds. Candidates will identify strategies to assist students in developing their worldview and personal potential.

EDU-548: Curricular and Instructional Methods in Higher Education 4 credits

This course covers curricular alignment, instructional design, and effective communication and collaboration amongst university stakeholders. Creating learning goals, developing student outcomes and assessments, and giving effective feedback are emphasized. Candidates are asked to collaboratively develop activities, assessments, lesson plans, and syllabi that would be appropriate for a course taught at a community college or university. Prerequisite: EDU-534.

EDU-551: Differentiated Instruction 3 credits

Candidates will use data to differentiate curriculum, instruction, and assessments to foster learning for all students. Focus will be on principles of learning, using technology to differentiate instruction, and developing an engaging classroom environment. Practicum/field experience hours: 10. Fingerprint clearance required.

EDU-554: Methods of Instruction and Assessment 3 credits

Candidates will develop skills in aligning objectives, instruction, and assessments. Special attention is given to differentiating curriculum for diverse students and using assessment data to guide instruction. Candidates will collaborate with peers and colleagues to achieve instructional goals through action planning. Review of current trends in instruction and assessment are presented to guide instructional decisions with a special focus on the needs of diverse students. Practicum/field experience hours: 10. Fingerprint clearance required.

EDU-558: Crisis Management and Intervention 3 credits

In this course, students will identify the legal, ethical, logistical, and psychological implications of student crises within the context of a Higher Educational setting. Candidates will learn proactive and reactive risk management resources and strategies to respond to student crises on campus and address the implications of student crisis specific to Student Affairs within the context of a Higher Educational landscape. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-567: Developing Student Leaders 3 credits

In this course, candidates will develop strategies to model and coach student leaders, equipping them to engage their peers in building and maintaining healthy campus community. Candidates learn to effectively select and train potential student leaders, and provide opportunities for student leaders to participate in leadership experiences within the higher education community. Practicum/field experience hours: None. Fingerprint clearance not required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EDU-568: Operational Resource Management 3 credits

In this course, students will learn how to ethically identify and utilize university resources while maximizing effectiveness within Student Affairs. Students will gain a working knowledge of how to advocate for needed resources and track expenses. Practicum/field experience hours: None. Fingerprint clearance not required.

EDU-578: Culture and Team Building 3 credits

In this course, candidates identify the importance of building effective teams stemming from a healthy organizational structure and emotionally intelligent culture in student affairs. Candidates initiate and participate in strategic team development for the benefit of student affairs, as well as the higher education community. Practicum/field experience hours: 26. Fingerprint clearance required. Prerequisite: All previous coursework must be completed.

EDU-586: Developing and Implementing Professional Development 3 credits

This course surveys effective strategies and practices in professional development. Special focus is placed upon theories and models, including andragogy, that enhance knowledge and skill development for adult learners in educational settings. Candidates develop and implement professional learning activities aligned with the needs of learners, schools and systems that ensure learner growth and advance the profession by leading collaborative interactions. Fingerprint clearance not required.

EDU-587: Community Development and Engagement on a University Campus 3 credits

In this course candidates will deepen their understanding of the structure of the university system, providing leadership to ensure effective application of initiatives that enhance and maintain the campus community. Candidates will collaboratively establish and maintain an effective educational environment and evaluate the effects of professional decisions and actions on students, families, and other professionals in the learning community. Practicum/field experience hours: 26. Fingerprint clearance required. Prerequisite: EDU-578. Practicum/field experience hours: 26. Fingerprint clearance required. Prerequisite: EDU-578.

EDU-588^Δ: Curriculum and Instruction Capstone 3 credits

Candidates deliver, evaluate, and revise a professional development presentation, and incorporate peer interaction with feedback to assure timeliness and relevance. Candidates create a year-long professional development plan based on instructional needs identified by an organization. Practicum/field experience hours: 30. Fingerprint clearance required. Prerequisite: EDU-586.

EDU-595: Higher Education Student Affairs Capstone 3 credits

This is the culminating course in the Master of Arts in Higher Education Student Affairs. This course combines the information and skills presented in prior courses in the program. In a 48-hour on-campus practicum/field experience, candidates apply their knowledge and skills in a specific area or department within student affairs. Candidates have the opportunity to synthesize and practice what they have learned in the program. Emphasis is on critical thinking and problem-solving skills through leadership and collaboration. Practicum/field experience hours: 48. Fingerprint clearance required. Prerequisite: EDU-587.

EDU-805: History and Politics of Higher Education 3 credits

This course provides a broad, global overview of the history and politics of higher education and examines the political landscape and ethics surrounding higher education. A brief overview of governmental interventions is also presented. Prerequisite: RES-811 or RES-850.

EDU-810: Funding and Budgetary Challenges in Higher Education 3 credits

This course examines the complex world of funding in higher education. Higher education leaders in private and public institutions must be able to strategically evaluate funding and budgetary challenges and be able to establish systemic responses to the ongoing challenge of comprehensively supporting the needs of the organization. Funding sources in higher education today include Federal Title grants, income from tuition, and the support of alumni groups and various benefactors, just to name a few. Acknowledging the management of these funding resources in relationship to annual budget goals, while simultaneously being faithful to organizational values and beliefs, are the challenges this course will explore.

EDU-812: Governance and Structures in Higher Education 3 credits

This course examines the internal and external governance and structures in higher education. The course emphasizes analysis of the leadership practices necessary to guide construction of appropriate internal and external frameworks. Prerequisite: RES-850.

EDU-815: Curriculum Leadership and Development in Higher Education 3 credits

Clearly, higher education leadership is defined to a great extent by the influence on the academic programming. Being cognizant of those factors that influence the instructional program is essential in this process, and this course examines how leaders think about these challenges and the steps they must take to consistently and strategically lead state-of-the-art teaching and learning experiences for the higher education students the leader serves. Consideration for national curriculum standards, labor needs, and other demographic issues that influence this process will also be explored.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EDU-817: Building a Community of Scholars in Higher Education 3 credits

This course examines relations with higher education stakeholders, including boards, learners, parents, faculty, staff, and the community at large. Attention is given to creating and sustaining a diverse learning infrastructure through faculty and staff professional development, alumni relations, and the building of a scholarly community. Prerequisite: RES-861.

EDU-820: Supervision and Staff Development in Higher Education 3 credits

This course examines the responsibilities a higher education leader has in supervising and developing the staff connected with the work associated with higher education. Supervision is a process that is made increasingly complex by the legal parameters associated with human resources and the steps that are required in order to provide appropriate levels of feedback throughout the supervisory process. The research has made it clear that staff development is an extremely essential aspect to helping an employee be successful on the job, and this course will explore the leader's role in creating a systemic response to the need to develop the talents and skills of those working in institutions of higher education.

EDU-822: Fiscal Management in Higher Education 3 credits

This course examines budgeting, fundraising, fiscal planning, and capital asset management in the higher education setting. Leadership skills for fiscal management and fiscal integrity are addressed. Prerequisite: RES-861.

EDU-825: Facilities Management and Continuous Renewal 3 credits

Leaders in higher education must be cognizant of the facility needs that are germane to the work of the institutions they serve. Those facility needs could include the management of the virtual networking hardware and software applications that are the lifeblood of the organization. Leaders must also consider various space options in which to conduct their business, including the maintenance of a campus learning environment and/or consideration of other satellite learning spaces. This course will comprehensively evaluate these challenges and examine the steps a higher education leader must consider in order to thoughtfully meet the needs of the learners and to plan strategically for future programming and administrative applications.

EDU-827: Strategic Planning in Higher Education 3 credits

This course addresses the establishment of a shared mission, vision, and goals among both internal and external stakeholders as the foundation for long-range strategic planning in higher education. Professional and facilities development is addressed in the context of higher education master planning.

EED-364: Curriculum, Methods, and Assessment: Science and Mathematics 4 credits

This course is designed to acquaint elementary teachers with the curriculum, theory, and effective techniques for the teaching and assessment of science and mathematics. Students are involved in formulation of programs, planning instruction, employing science and mathematics resources and materials that are currently being used in the public schools, and using instructional models. This course includes laboratory experiences. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisites: An undergraduate science course and one of the following combinations: EDU-215 and EDU-313N or EDU-210 and EDU-213.

EED-465: Curriculum, Methods and Assessment: Social Studies 4 credits

This course is designed to assist elementary teachers with methods of instruction, unit and daily lesson plan construction, use of literary materials and resources, and developing a coherent, assessment-based, data-driven program fostering social studies in the classroom. Laboratory experiences include multicultural classrooms. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisites: An undergraduate history or social science course, and one of the following combinations: EDU-215 and EDU-313N OR EDU-210 and EDU-213.

EED-470: Curriculum, Methods and Assessment: Literacy and Language Arts K-3 4 credits

This course includes a wide range of literacy and assessment strategies based on instructional outcomes. Course content is strategically planned to enable participants to make informed decisions based on data in literacy and language instruction. This course includes reading diagnostics, assessments, and strategies implemented with a single elementary student in a site-based reading lab. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisite: EDU-215 or EDU-210.

EED-475: Curriculum, Methods and Assessment: Literacy and Language Arts 4-8 4 credits

This course is designed to develop a coherent, assessment-based, data-driven program fostering literacy in the classroom. Course content is strategically planned to enable participants to make informed decisions based on assessment data in literacy and language instruction. The course includes discourse theory as it pertains to the teaching of reading and writing. Emphasis is placed on planning and delivery of lessons in reading comprehension, literature, phonics, writing, oral language, vocabulary, and evaluation of learning. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisite: EDU-215 or EDU-210.

Elementary Education (EED)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EED-480NA^Ω: Student Teaching: Elementary Session A **6 credits**

Session A is one of two 8 week sessions of the student teaching experience. Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Performance of Evaluation (STEP). Fingerprint clearance required.

EED-480NB^Δ: Student Teaching: Elementary Session B **6 credits**

This session is a continuation of Session A. Prerequisite: EED-480NA.

Electrical Engineering (EEE)

EEE-202[♦]: Circuits **3 credits**

This course provides students with a strong foundation in core areas of electrical engineering. Students will learn the main ideas of circuits and their enabling role in electrical engineering components, devices, and systems. The course offers in-depth coverage of AC & DC circuits, circuit analysis, filters, impedance, power transfer, applications of Laplace transforms, and op-amps. Prerequisites: MAT-262, PHY-121 and PHY-121L. Co-Requisite: PHY-122, PHY-122L, EEE-202L.

EEE-202L[♦]: Circuits Lab **1 credits**

The laboratory section of EEE-202 reinforces and expands learning of principles introduced in the lecture course. Hands-on activities focus problem solving using scientific computation tools, simulations, and various programming languages. Prerequisites: MAT-262, PHY-121 and PHY-121L. Co-Requisite: PHY-122, PHY-122L, EEE-202.

EEE-213[♦]: Signals and Systems **3 credits**

This course bridges theoretical mathematical foundations and practical implementation of circuits and computer algorithms. The course presents applications in engineering, physics, feedback and control, communications, and signal processing. Topics covered include: CT and DT signals and systems, linearity, time-invariant systems, causality, transient and steady state responses, Fourier transforms, Laplace transforms, Z transforms, sampling, state variables, and feedback systems. Prerequisites: MAT-264, EEE-202 and EEE-202L. Co-Requisite: EEE-213L.

EEE-213L[♦]: Signals and Systems Lab **1 credits**

The laboratory section of EEE-213 reinforces and expands learning of principles introduced in the lecture course. Hands-on activities focus problem solving using scientific computation tools, and various programming languages. In particular, students work on system simulation and real-time signal processing. Prerequisites: MAT-264, EEE-202 and EEE-202L. Co-Requisite: EEE-213.

EEE-302[♦]: Advanced Circuits & Lab **4 credits**

This course focuses on the analysis and design of filters, circuits, converter modeling, and signal transfer functions. Additional topics covered include non-ideal active devices, Cauer design, and an introduction to digital circuits. The laboratory reinforces and expands learning of principles introduced in the lecture course. Hands-on activities engage students in projects such as the design, analysis, simulation, and construction of a switched-mode power supply; solve complex design problems, or the use of modern analog circuits. Prerequisites: MAT-364, EEE-202 and EEE-202L.

EEE-302HN[♦]: Advanced Circuits & Lab **4 credits**

This course focuses on the analysis and design of filters, circuits, converter modeling, and signal transfer functions. Additional topics covered include non-ideal active devices, Cauer design, and an introduction to digital circuits. The laboratory reinforces and expands learning of principles introduced in the lecture course. Hands-on activities engage students in projects such as the design, analysis, simulation, and construction of a switched-mode power supply; solve complex design problems, or the use of modern analog circuits. Prerequisites: MAT-364, EEE-202 and EEE-202L.

EEE-320[♦]: Electronics and Devices & Lab **4 credits**

This course builds on knowledge acquired in previous courses on advanced circuits to expand the coverage of the design and analysis of integrated circuit amplifiers and the design and analysis of feedback amplifiers. Specific topics covered in this course may include: electronics and manufacturing of integrated circuits, microwave/RF amplifiers, linear amplifiers, mixers, and advanced digital and analog circuits. The laboratory reinforces and expands learning of principles introduced in the lecture course. Hands-on activities focus on the design, assembly, and testing electronic circuits that use diodes, transistors, and operational amplifiers. Prerequisites: EEE-302, STG-242, and STG-242L.

EEE-431[♦]: Communications Signal Processing & Lab **4 credits**

This course develops the foundations of electrical communications and differences between analog and digital modulation. Main topics covered include: analog signal transmission and reception, effects of noise in analog communications, sampling, digital information sources, entropy, source coding, waveform coding, and PCM Digital transmission through AWGN through band-limited channels. The laboratory reinforces and expands learning of principles introduced in the lecture course. Hands-on activities include channel coding, wireless and mobile networks, and signal processing using Matlab. Prerequisites: EEE-213 and EEE-213L, EEE-302, MAT-374.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EEE-431HN[♦]: Communications Signal Processing & Lab 4 credits

This course develops the foundations of electrical communications and differences between analog and digital modulation. Main topics covered include: analog signal transmission and reception, effects of noise in analog communications, sampling, digital information sources, entropy, source coding, waveform coding, and PCM Digital transmission through AWGN through band-limited channels. The laboratory reinforces and expands learning of principles introduced in the lecture course. Hands-on activities include channel coding, wireless and mobile networks, and signal processing using Matlab. Prerequisites: EEE-213 and EEE-213L, EEE-302, MAT-374.

Electrical Engineering Technology (EET)

EET-202[♦]: Applied Circuits I 3 credits

This course introduces students to the fundamentals of electric circuits. Students will learn methods for analyzing DC networks under different loading conditions. Topics include Kirchoff's voltage and current laws, node analysis, mesh analysis, impedance, series and parallel load combinations, transient analysis, operational amplifiers (op-amps), and Simulation Program with Integrated Circuit Emphasis (SPICE) modeling. Students also develop skills in PCB fabrication and soldering. Prerequisites: PHY-111 and PHY-111L. Co-Requisite: EET-202L.

EET-202L[♦]: Applied Circuits I Lab 1 credits

This laboratory-based course reinforces the analysis of DC networks by providing additional hands on experience in breadboarding, modeling, and measuring inputs and outputs for a given circuit. Prerequisites: PHY-111 and PHY-111L. Co-Requisite: EET-202.

EET-302[♦]: Applied Circuits II & Lab 4 credits

This course builds on the topics of EET-202 and introduces more advanced circuit analysis concepts. Topics include complex impedance, AC steady-state response, resonance, passive and active filters, Bode plots, and magnetic circuits. Students practice circuit design and verification in MATLAB. Prerequisite: EET-202.

EET-320[♦]: Digital Electronics and Integrated Circuits & Lab 4 credits

This course teaches students about digital electronics and semiconductor-based devices. Topics include diodes, bipolar and field-effect transistors, logic gates, combinational and sequential logic, amplifier circuits, and microcontrollers. Prerequisite: EET-302.

EET-325[♦]: Embedded Systems 4 credits

This course covers topics in electrical and mechanical instrumentation and data acquisition. Topics include gauges and transducers, calibration, signal noise and conditioning, computerized data acquisition (DAQ) systems, results documentation, and statistical analysis of data. Prerequisite: PHY-111, PHY-111L, PHY-112, PHY-112L, EET-202.

EET-330[♦]: Communication Networks & Lab 4 credits

This course covers topics in communications and networking. Students will study methods for analyzing continuous and discrete signals, sampling, noise, and data transmission protocols. Lab activities may include wireless networking, modulating radio signals, and system modeling in MATLAB. Prerequisite: EET-302.

EET-425[♦]: Industrial Automation 2 credits

This course introduces students to topics in industrial automation such as the electrical systems that power and control modern robotics, the programming logic that directs their behavior, design and implementation challenges, automated metrology, safety protocols, and environmental considerations. Systems of focus may include electrical power generation, automotive manufacturing, and circuit board manufacturing and assembly, and silicon wafer handling. Prerequisite: ETG-415. Co-Requisite: ETG-410.

EET-430[♦]: Electrical Troubleshooting and Maintenance & Lab 4 credits

This course teaches preventative maintenance and fault isolation. Students learn about common failure modes and ways to increase system reliability. Topics include safety, test equipment, troubleshooting methodology, interpreting schematics, power distribution, common control circuits, and motor maintenance. Prerequisite: EET-320.

Elementary Education (ELM)

ELM-200[♦]: Child and Early Adolescent Development and Psychology 4 credits

Teacher candidates survey how children and early adolescents grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas while understanding the implications for designing and implementing developmentally appropriate and challenging learning experiences. This survey of the seminal concepts, principles, theories, and research related to development of children and young adolescents allows teacher candidates to build foundational knowledge for constructing learning opportunities that support individual student's development, acquisition of knowledge, and motivation. Practicum/field experience hours: None. Fingerprint clearance not required.

[♦] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ELM-200HN[♦]:	Child and Early Adolescent Development and Psychology	4 credits
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Teacher candidates survey how children and early adolescents grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas while understanding the implications for designing and implementing developmentally appropriate and challenging learning experiences. This survey of the seminal concepts, principles, theories, and research related to development of children and young adolescents allows teacher candidates to build foundational knowledge for constructing learning opportunities that support individual student's development, acquisition of knowledge, and motivation. Practicum/field experience hours: None. Fingerprint clearance not required.

ELM-200XV:	Child and Early Adolescent Development and Psychology	4 credits
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Teacher candidates survey how children and early adolescents grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas while understanding the implications for designing and implementing developmentally appropriate and challenging learning experiences. This survey of the seminal concepts, principles, theories, and research related to development of children and young adolescents allows teacher candidates to build foundational knowledge for constructing learning opportunities that support individual student's development, acquisition of knowledge, and motivation. Practicum/field experience hours: None. Fingerprint clearance not required.

ELM-210:	Instructional Planning and Assessments for Elementary Teacher Candidates	4 credits
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Teacher candidates build foundational knowledge on planning instruction and formal and informal assessment strategies. Teacher candidates will examine instructional planning based on knowledge of students, learning theory, connection across the curriculum, curricular goals, and community. Formal and informal assessment strategies for planning, evaluating, and strengthening instruction for elementary students are also examined. Practicum/field experience hours: 5. Fingerprint clearance required.

ELM-250^Δ:	Creating and Managing Engaging Learning Environments	4 credits
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In this writing intensive course, teacher candidates examine how to create environments that support individual and collaborative learning, and encourage students' positive social interaction, active engagement in learning, and self-motivation. Teacher candidates build foundational knowledge regarding the importance of establishing and maintaining positive collaborative relationships with families, school colleagues, and agencies in the larger community to promote the intellectual, social, emotional, physical growth, and well-being of children. Practicum/field experience hours: 5. Fingerprint clearance required.

ELM-250HN^{Δ,†}:	Creating and Managing Engaging Learning Environments	4 credits
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In this writing intensive course, teacher candidates examine how to create environments that support individual and collaborative learning, encourage positive social interaction, active engagement in learning, and self-motivation. Teacher candidates build foundational knowledge regarding the importance of establishing and maintaining positive collaborative relationships with families, school colleagues, and agencies in the larger community to promote the intellectual, social, emotional, physical growth, and well-being of children. Practicum/field experience hours: 5. Fingerprint clearance required.

ELM-305:	Foundational Literacy Skills and Phonics	4 credits
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Teacher candidates will examine how to teach foundational skills to develop proficient readers with the capacity to comprehend texts across a range of texts and disciplines. Teacher candidates will build additional knowledge regarding print concepts, phonological awareness, phonics and word recognition, and fluency to promote early literacy and independent readers. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisite: ELM-210 or ECS-125.

ELM-350:	Methods & Strategies of Teaching & Integrating Social Studies & the Arts	4 credits
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Teacher candidates will examine a variety of instructional strategies to encourage learners to develop deep understanding of the major concepts and modes of inquiry from the integrated study of history, geography, the social sciences and other related areas. Teacher candidates will build foundational knowledge on promoting elementary students' abilities to make informed decisions as citizens of a culturally diverse democratic society and interdependent world. Teacher candidates will integrate the content, functions and achievements of the performing and visual arts as primary media for communication, inquiry and engagement among elementary students. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ELM-210.

ELM-351:	Methods and Strategies for Integrating Social Studies and the Arts	4 credits
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Teacher candidates will examine a variety of instructional strategies to encourage students to develop deep understanding of the major concepts and modes of inquiry from the integrated study of social studies and other related areas. Teacher candidates will build foundational knowledge on promoting elementary students' abilities to make informed decisions as citizens of a culturally diverse democratic society and interdependent world. Teacher candidates will integrate the content, functions and achievements of the performing and visual arts as primary media for communication, inquiry and engagement among elementary students. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ELM-210.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ELM-357: Fostering Student Engagement 4 credits

In this course, teacher candidates examine how to foster and support student autonomy in the classroom. Candidates analyze how to provide purposeful feedback and establish a learning environment in which students participate in their own learning and engage in collaborative goal setting, self-assessment of progress, reflective thinking, and questioning with intention. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ELM-210.

ELM-360: Methods and Strategies of Teaching and Integrating Science and Health 4 credits

Teacher candidates will examine fundamental concepts of physical, life, earth/space sciences and health education. Teacher candidates will build foundational knowledge on a variety of age-appropriate inquiry-based instructional strategies to teach science, to build student understanding of personal and social applications, to convey the nature of science, and student development for the practice of skills that contribute to good health. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ELM-210.

ELM-361:	Instructional Methods and Strategies for Integrating Science and Health	4 credits
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Teacher candidates will examine fundamental concepts of physical, life, earth and space sciences, and health education. Teacher candidates will build foundational knowledge on a variety of age-appropriate inquiry-based instructional strategies to teach science, to build student understanding of personal and social applications, to convey the nature of science, and student development for the practice of skills that contribute to good health. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ELM-210.

ELM-461: Instructional Methods for Science and Engineering 4 credits

Teacher candidates will learn how to utilize instructional methods for science and engineering to actively engage students with challenges that are real-world and relevant. In this course, teacher candidates will explore how students learn utilizing authentic problems and participating in projects, with an emphasis on STEM education. Practicum/field experience hours: 10. Fingerprint clearance required.

ELM-462: Interdisciplinary Teaching and Learning in STEM **4 credits**

Teacher candidates will explore the importance and methodologies for developing innovative science, technology, engineering, and mathematics (STEM) curricula that integrates all academic areas in a relevant and cohesive manner. In this course, teacher candidates will examine the various aspects of STEM that can be integrated across content areas and disciplines. Practicum/field experience hours: None. Fingerprint clearance not required.

ELM-463:	STEM Tools in the Modern Classroom	4 credits
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Teacher candidates, particularly those who intend to teach courses focused on science, technology, engineering, and mathematics (STEM), need to be equipped with technological skills in order to meet the demands and expectations of the changing educational environment. In this course, teacher candidates will research current and emerging technologies, examine their use in enhancing teaching and learning, and explore approaches to equip students with the necessary knowledge and skills to utilize them appropriately. Practicum/field experience hours: None. Fingerprint clearance not required.

ELM-464:	Three Dimensional Teaching in STEM Classrooms	4 credits
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In this course, teacher candidates will examine the fundamentals of three dimensional teaching and learning and how to integrate these concepts into the planning and implementation of curricula. Teacher candidates evaluate the elements of three-dimensional learning: practices, crosscutting concepts, and disciplinary core ideas. Practicum/field experience hours: 5. Fingerprint clearance required.

ELM-470: Methods and Strategies for Teaching Mathematics **4 credits**

Teacher candidates examine a variety of instructional strategies to encourage students to develop a deep understanding of the major concepts and procedures that define number and operations, algebra, geometry, measurement and data, and probability. From this foundational knowledge, candidates select, adapt and use research-based methods, instructional strategies, and interventions to advance the mathematical abilities of students and have them apply their knowledge and abilities in meaningful ways. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ELM-210.

ELM-480: Methods and Strategies for Teaching English Language Arts **4 credits**

Teacher candidates will build foundational knowledge on how to use concepts from reading, language, and child development to teach reading, writing, speaking, viewing, listening, and thinking skills. Teacher candidates select, adapt and use research-based methods, instructional strategies, and interventions to individualize meaningful and challenging learning for students, with an emphasis on literacy. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ELM-210 and ELM-305.

ELM-490^Ω:	Student Teaching for Elementary Education Teacher Candidates	8 credits
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Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Performance of Evaluation (STEP). Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ELM-490A: Student Teaching for Elementary Education: Session A 6 credits

Session A is the first of two 8-week sessions of the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Performance of Evaluation (STEP). Practicum/field experience hours: None. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of state-mandated NES content area exams; and approval and placement by the College of Education Office of Field Experience. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

ELM-500: Child and Early Adolescent Development and Psychology 3 credits

Teacher candidates survey how children and early adolescents grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas while understanding the implications for designing and implementing developmentally appropriate and challenging learning experiences. This survey of the seminal concepts, principles, theories, and research related to development of children and young adolescents will allow teacher candidates to build foundational knowledge for constructing learning opportunities that support individual students' development, acquisition of knowledge, and motivation. Practicum/field experience hours: None. Fingerprint clearance not required.

ELM-510: Creating and Managing Engaging Learning Environments 3 credits

Teacher candidates examine how to create environments that support individual and collaborative learning, encourage positive social interaction, active engagement in learning, and self-motivation. Teacher candidates build foundational knowledge regarding the importance of establishing and maintaining positive collaborative relationships with families, school colleagues, and agencies in the larger community to promote the intellectual, social, emotional, physical growth, and well-being of children. Practicum/field experience hours: 6. Fingerprint clearance required.

ELM-520: Instructional Planning for Elementary Teacher Candidates 3 credits

Teacher candidates examine how instructional planning supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of students and the community context. Teacher candidates build foundational knowledge regarding the importance of planning instruction based on knowledge of students, learning theory, connection across the curriculum, curricular goals, and community, with focused attention upon children's informational text. Practicum/field experience hours: 6. Fingerprint clearance not required.

ELM-525: Middle Grade Curriculum and Instructional Planning 3 credits

Teacher candidates examine how instructional planning supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of students and the community context. Teacher candidates build foundational knowledge regarding the importance of planning instruction based on knowledge of students, learning theory, connection across the curriculum, curricular goals, and community, with focused attention upon middle grade curriculum. Practicum/field experience hours: 6.

ELM-530: Assessment and Evaluation for Elementary Teacher Candidates 3 credits

Teacher candidates investigate multiple methods of assessment that support student engagement, monitoring student progress, and guiding decision making. Teacher candidates build foundational knowledge regarding formal and informal assessment strategies for planning, evaluating, and strengthening instruction to promote continuous intellectual, social, emotional, and physical development of each elementary student. Practicum/field experience hours: 6. Fingerprint clearance not required. Prerequisite: ELM-520.

ELM-535: Strategies for Student Engagement 3 credits

Teacher candidates develop strategies to foster and support student autonomy in the classroom. Teacher candidates build knowledge and skills to promote self-directed learning and empower students to take control and set goals for their own learning outcomes. Teacher candidates design and plan a learning environment that allows active participation from students in their own learning, collaborative goal setting with students and other stakeholders, self-assessment of progress, reflective thinking, questioning with intention, and purposeful feedback. Practicum/field experience hours: 10. Fingerprint clearance required.

ELM-540: Foundational Literacy Skills 3 credits

Teacher candidates examine how to teach foundational skills to develop proficient readers with the capacity to comprehend texts across a range of texts and disciplines. Teacher candidates build additional knowledge regarding print concepts, phonological awareness, phonics and word recognition, and fluency to promote early literacy and independent readers. Practicum/field experience hours: 6. Fingerprint clearance required. Prerequisite: ELM-530 or ECS-501 or ELM-555.

ELM-542: Instruction in Foundational Literacy Skills 3 credits

Teacher candidates examine how to teach foundational skills to develop proficient readers with the capacity to comprehend texts across a range of texts and disciplines. Teacher candidates build additional knowledge regarding print concepts, phonological awareness, phonics and word recognition, and fluency to promote early literacy and independent readers. Practicum/field experience hours: 6.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ELM-550: Methods & Strategies of Teaching & Integrating Social Studies & the Arts 3 credits

Teacher candidates examine a variety of instructional strategies to encourage learners to develop deep understanding of the major concepts and modes of inquiry from the integrated study of history, geography, the social sciences and other related areas. Teacher candidates build foundational knowledge on promoting elementary students' abilities to make informed decisions as citizens of a culturally diverse democratic society and interdependent world. Teacher candidates integrate the content, functions and achievements of the performing and visual arts as primary media for communication, inquiry and engagement among elementary students. Practicum/field experience hours: 12. Fingerprint clearance required. Prerequisite: ELM-530 or ELM-570.

ELM-555: Instructional Planning and Assessment for Elementary Teacher Candidates 3 credits

Teacher candidates examine how instructional planning supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of students and the community context. Teacher candidates analyze and integrate multiple methods of assessment that support student engagement, monitoring student progress, and guiding decision making. Assessment and instruction will support foundational knowledge regarding the importance of planning instruction based on knowledge of students, learning theory, connection across the curriculum, curricular goals, and community, with focused attention on formative and summative assessments. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ELM-500.

ELM-560: Methods and Strategies of Teaching Mathematics 3 credits

Teacher candidates examine a variety of instructional strategies to encourage learners to develop deep understanding of the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability and to build skills to apply knowledge in meaningful ways. Teacher candidates build foundational knowledge on engaging problem solving, reasoning and proof, communication, connections and representations to help students successfully apply their developing skills to many different situations, materials, and ideas. Practicum/field experience hours: 12. Fingerprint clearance required. Prerequisite: ELM-530 or ELM-570.

ELM-570: Methods and Strategies of Teaching and Integrating Science and Health 3 credits

Teacher candidates examine fundamental concepts of physical, life, earth/space sciences and health education. Teacher candidates build foundational knowledge on a variety of age-appropriate inquiry-based instructional strategies to teach science, to build student understanding of personal and social applications, to convey the nature of science, and student development for the practice of skills that contribute to good health. Practicum/field experience hours: 12. Fingerprint clearance required. Prerequisite: ELM-530 or ELM-555.

ELM-580: Methods and Strategies of Teaching English Language Arts 3 credits

Teacher candidates examine a variety of instructional strategies to encourage learners to develop deep understanding of reading, writing, and oral language and their connections, and to build skills to apply knowledge in meaningful ways. Teacher candidates build foundational knowledge on how to use the concepts from reading, language, and child development to teach reading, writing, speaking, viewing, listening, and thinking skills, and to help students successfully apply their developing skills to many different situations, materials, and ideas. Practicum/field experience hours: 12. Fingerprint clearance required. Prerequisite: ELM-530 or ELM-570.

ELM-590^Ω: Student Teaching for Elementary Teacher Candidates 8 credits

Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Evaluation of Performance (STEP). Fingerprint clearance required. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 3.0 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

Emergency Management (EMM)

EMM-300[♦]: History and Development of Emergency Management 4 credits

This course provides students with insight into the profession of emergency management, its history, principles, participants, functions, structure, and future. This course includes concepts related to accreditation of emergency management programs, professional associations, and professional credentials.

EMM-301: Introduction to Homeland Security and Emergency Management 4 credits

This course provides an overview of the Department of Homeland Security and the national preparedness goal, including its mission areas and core capabilities. Students learn the key principles, participants, functions, structures, and challenges within the discipline with a focus on a systematic, community-based, all-hazard approach to emergency management. This course also includes concepts related to accreditation of emergency management programs and professional associations, credentials, and certifications.

EMM-305: Emergency Operations and Techniques 4 credits

The knowledge and practice gained in this course will provide the emergency manager and first responder with management and supervision skills and techniques that are specific to emergency management and to the agencies employing emergency managers. These skills and techniques of management are necessary for success in the emergency services environment.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EMM-306^Δ: Protection and Security 4 credits

This writing-intensive course focuses on the mission area of protection, with an emphasis on the capabilities necessary to protect the country from acts of terrorism and manmade and natural disasters. Students integrate knowledge of risk and vulnerability assessment and operational structures, resources, and processes to develop comprehensive measures to secure the nation and its interests against varied threats. Prerequisite: EMM-301.

EMM-310: Mitigation Planning 4 credits

This course examines the processes and principles of mitigation planning for emergency management, the benefits of mitigation, and the development and implementation of appropriate mitigation measures.

EMM-311: Hazard Mitigation Planning 4 credits

This course examines the processes and principles of mitigation planning for emergency management. Students examine the benefits of mitigation and the development and implementation of appropriate mitigation measures to reduce the impact of disasters on people and the environment. Prerequisite: EMM-301.

EMM-400: Terrorism Prevention 4 credits

This course explores the dimensions of domestic and international terrorism and focuses on the core capabilities necessary for preventing terrorist acts. Students examine the role of intelligence and information sharing, security measures, and methods of disruption used for impeding terrorism. Prerequisite: EMM-301.

EMM-412: Emergency Response Operations and Techniques 4 credits

The knowledge and practice gained in this course provide the emergency manager with management and supervision skills and techniques critical to success in the emergency services environment. Focus is on practices necessary for saving lives, protecting the built and natural environment, and providing for the populace following a disaster. Prerequisite: EMM-301.

EMM-415: Disaster Response and Recovery 4 credits

This course addresses disaster recovery and business continuity in public agencies and private companies, an explanation of federal guidelines for government continuity planning, and professional practices for business continuity planning in private companies, as well as how to address and respond to special emergency management issues in disasters, including animal care, special needs populations, and evacuations.

EMM-442[♦]: Terrorism's Impact on Emergency Management 4 credits

This course examines the historical and political impact of terrorism on emergency management, including examples of terrorist activity, a summary of federal government efforts, and media coverage of terrorism. Also JUS-442.

EMM-450: Disaster Recovery 4 credits

This course addresses disaster recovery and the core capabilities required to promote comprehensive recovery within communities impacted by disaster. Students examine issues related to restoring infrastructure, businesses and the economy, and human and environmental health. Prerequisite: EMM-301.

EMM-485^{ΔΩ}: Emergency Management Capstone 4 credits

In this writing-intensive course, students demonstrate competence in emergency management through the development of an individual project. Students select an aspect of emergency management and complete a continuity of operations plan (COOP) using critical thinking to demonstrate knowledge of core capabilities and account for the complexities of dealing with emergencies and disasters. Prerequisites: EMM-306, EMM-311, EMM-400, EMM-412, EMM-450, and MGT-440.

EMM-600: Emergency Planning and Management 4 credits

This course is designed to teach students the planning and management processes and the issues involved in large-scale emergencies. The nature of natural and technological risk and emergency are explored via case studies. Public sector roles in contingency planning and response are also discussed and assessed.

EMM-605: Economics and Human Issues 4 credits

This course provides an overview of the strategic, political, economic, and human issues encountered in the management of disasters or major traumatic public events. This knowledge gives the emergency manager a realistic view of the issues to expect in a disaster, how to plan accordingly, and how to manage resources and people more effectively in emergency situations.

EMM-610: Law and Legal Issues 4 credits

This course analyzes the federal, state, and local legislation related to emergency management in various types of disasters. Guaranteed rights under the U.S. Constitution and the legal and ethical application of measures within the parameters of these rights in emergency situations are also discussed.

EMM-641: Understanding Terrorism's Threat 4 credits

This course explores modern terrorism and terrorist behavior, including cyberterrorism, the role of the media, the private sector, and implications in a global society.

EMM-685: Leadership in Emergency Management Capstone 4 credits

This capstone course provides students the opportunity to synthesize their advanced knowledge and experiences in the field of emergency management through the development of a research or applied project focused on improving practice. Projects require students to demonstrate the critical thinking skills, professional acumen, and knowledge base that characterize successful leadership in the field. Prerequisites: EMM-600, EMM-605, and EMM-610.

English (ENG)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ENG-105^{△♦}: English Composition I 4 credits

This is a writing-intensive course in writing academic prose, including various types of essays, arguments, and constructions.

ENG-106^{△♦}: English Composition II 4 credits

This course explores various types of research writing, with a focus on constructing essays, arguments, and research reports based on primary and secondary sources. A writing intensive course. Prerequisite: ENG-105.

ENG-107[♦]: Introduction to Writing for the Sciences 4 credits

This course is an introduction to technical and scientific writing in fields such as engineering, biology, computer science, and other STEM disciplines, and provides students with a background in logic and communication. In accordance with the Council of Writing Program Administrators Outcomes Statement and the Elon Statement on Learning Transfer, this course provides practice with a variety of scientific genres of communication, including their expected writing styles and structures. This course supports students in the ability to transfer knowledge of writing across technical and scientific disciplines and adapt to new and different writing tasks throughout their careers in the sciences.

ENG-130[♦]: Introduction to Young Adult Literature 4 credits

This course delves into critical approaches to literature that are of interest to young adult readers. Themes such as identity, culture, ethnicity, race, values, gender, and censorship are among those explored through close readings and textual analysis of popular and historical fiction, nonfiction, graphic novels, and dystopian literature.

ENG-130XV: Introduction to Young Adult Literature 4 credits

This course delves into critical approaches to literature that are of interest to young adult readers. Themes such as identity, culture, ethnicity, race, values, gender, and censorship are among those explored through close readings and textual analysis of popular and historical fiction, nonfiction, graphic novels, and dystopian literature.

ENG-135^{△♦}: Lifelong Learning Assessment 4 credits

This writing intensive course enables qualifying adult learners to translate their real-life learning experiences into credits that can be applied toward general education and elective course requirements. Students who pass this course earn four credits and can earn up to eight additional credits by writing full-length Lifelong Learning Assessment (LLA) papers that are assessed by LLA evaluators. Prerequisite: ENG-105.

ENG-206HN^{△/♦}: The Power of Media: Social and Critical Approaches 4 credits

This writing intensive honors course continues the themes of knowledge, argument, and logic from previous honors courses. Students cover effective communication and making sound arguments based on logic and research. Parallel events from history are used as a vehicle to show how communication affects society. Prerequisite: Acceptance into the honors program.

ENG-240^{△♦}: Writing for the 21st Century Workplace 4 credits

This writing intensive introductory course provides students with experience in typical workplace genres and written communication practices. Emphasizing the roles genres play in organizational communication, this course also provides students with practical, procedural knowledge that will help them adapt their writing to new contexts and audiences. Prerequisite: ENG-105.

ENG-240HN^{△/♦}: Writing for the 21st Century Workplace 4 credits

This writing intensive introductory course provides students with experience in typical workplace genres and written communication practices. Emphasizing the roles genres play in organizational communication, this course also provides students with practical, procedural knowledge that will help them adapt their writing to new contexts and audiences. Prerequisite: ENG-105.

ENG-245[△]: Introduction to Basic Grant Writing 4 credits

This course examines the processes, purposes, and practicalities of grant writing with an emphasis on communication between funding sources and grant seekers. Students learn about funding sponsors and their concerns, the parts of grant proposals, and techniques for successful grant research and writing. The course culminates in the students' completion of a grant proposal.

ENG-250[♦]: Analysis of World Literature 4 credits

This course is a study of some diverse works in world literature. It introduces all advanced English course offerings. Students will also be introduced to methods of literary criticism and analysis. All students who plan to major in English should earn a 3.00 or above in this course before taking any upper division English courses. Prerequisites: ENG-105 and ENG-106.

ENG-270[♦]: English Literature II 4 credits

This course is a continuation of ENG-260, covering the Romantic period through the Modern period. Prerequisite: ENG-250.

ENG-270HN^{/♦}: English Literature II 4 credits

This course is a continuation of ENG-260, covering the Romantic period through the Modern period. Prerequisite: ENG-250.

ENG-353[♦]: American Literature II 4 credits

This course is a survey of realism, naturalism, modernism, and postmodernism in American fiction, drama, and poetry of the 19th and 20th centuries. Prerequisites: ENG-105 and ENG-106 and ENG-250.

ENG-353HN^{/♦}: American Literature II 4 credits

This course is a survey of realism, naturalism, modernism, and postmodernism in American fiction, drama, and poetry of the 19th and 20th centuries. Prerequisites: ENG-105 and ENG-106 and ENG-250.

[△] Writing intensive course | [♦] Fulfills General Education requirement | [/] Honors Major Course | ^Ω Non-Transferable

ENG-355♦: Multicultural Literature 4 credits

This course explores multicultural texts from a variety of genres. Students in this course focus on awareness of diversity in culture and in written expressions by analyzing textual features and cultural/historical context. Prerequisite: ENG-105.

ENG-355HN♦: Multicultural Literature 4 credits

This course explores multicultural texts from a variety of genres. Students in this course focus on awareness of diversity in culture and in written expressions by analyzing textual features and cultural/historical context. Prerequisite: ENG-105.

ENG-356♦: The Short Story 4 credits

This course is a study of the short story in English and in translation, its development, the different types, and an analysis of technique. Prerequisite: ENG-250.

ENG-357♦: Foundational Texts of British Literature 4 credits

This course interprets and analyzes important texts of the British tradition from approximately A.D. 500 to 1800. Special attention is paid to the importance of cultural context, close textual analysis, and literary terms and concepts, especially concepts of poetic meter and rhyme. Prerequisite: ENG-105.

ENG-358♦: Introduction to English Grammar and Linguistics 4 credits

This course is a review of basic English syntax, form, and mechanics. It also introduces principles of grammar and linguistics and explores the historical development of English and its variations across social contexts. Prerequisites: Grade of 2.00 or higher in ENG-105 and ENG-106, or satisfactory completion of GCU's written communication competency.

ENG-359♦: Transatlantic Literature 4 credits

This course explores the literatures and cultural exchange of America and Britain from the Romantic Era to the present day. Students develop an understanding of themes, genres, and literary techniques that inform present-day literary and communicative strategies. Prerequisite: ENG-105.

ENG-360♦: American Encounter Narratives 4 credits

This course explores the earliest American literatures to American Romanticism with an emphasis on narratives of cultural encounter. Students examine representative poetry and prose with attention to themes, rhetoric, and narrative form. Prerequisite: ENG-105.

ENG-361♦: The Art and Craft of Creative Writing 4 credits

In this course, students explore creative writing through an examination of craft and strategies, readings and discussion, writing across the major genres (poetry, fiction, and creative nonfiction), and the editorial process, which includes critiquing and revision. In addition, students consider the application of creative writing techniques to arenas in the professional writing world.

ENG-365♦: Multi-Media Journalism in the 21st Century 4 credits

In this course, students learn to identify news, develop story ideas, conduct research on stories, write in a journalistic style, and report information in a variety of media.

ENG-381♦: Writing for Advertising and PR 4 credits

This course exposes students to the various types of writing tasks utilized by PR and advertising professionals. In addition to enabling students to write with clarity and skill for various media and contexts, this course encourages students to use strategy, creativity, and critical thinking in composing advertising and public relations material.

ENG-424A♦: Literary Movement 4 credits

This writing-intensive course surveys the major works and figures of a literary movement, including examining that movement's historical and cultural contexts.

ENG-425♦: Major Author 4 credits

This course focuses upon the study of the works of a major author, with emphasis on the author's seminal works and with suitable reference to the author's biography and other works of merit.

ENG-451♦: Shakespeare and the History of Drama 4 credits

This course explores the history of the dramatic medium through the lens of plays from Ancient Greece to 20th-century Europe, concentrating primarily on the plays and cultural context of William Shakespeare. Prerequisite: ENG-105.

ENG-451HN♦: Shakespeare and the History of Drama 4 credits

This course explores the history of the dramatic medium through the lens of plays from Ancient Greece to 20th-century Europe, concentrating primarily on the plays and cultural context of William Shakespeare. Prerequisite: ENG-105.

ENG-456A♦: Communicating Scientific Ideas to Popular Audiences 4 credits

This writing intensive course prepares students to interpret scientific ideas for lay audiences. Drawing from best practices of writers from popular sources such as magazines, news articles, blogs, and other forms of popular writing designed for wide consumption, students learn to convey scientific ideas through various genres for various purposes and audiences. Prerequisite: ENG-105.

ENG-456HN♦: Communicating Scientific Ideas to Popular Audiences 4 credits

This writing intensive course prepares students to interpret scientific ideas for lay audiences. Drawing from best practices of writers from popular sources such as magazines, news articles, blogs, and other forms of popular writing designed for wide consumption, students learn to convey scientific ideas through various genres for various purposes and audiences. Prerequisite: ENG-105.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ENG-460♦: The Novel 4 credits

This course is a study in the development of the novel focusing primarily on the reading and discussion of 19th and 20th century British and American works. Prerequisites: ENG-105 and ENG-106.

ENG-460HN♦: The Novel 4 credits

This course is a study in the development of the novel focusing primarily on the reading and discussion of 19th and 20th century British and American works. Prerequisites: ENG-105 and ENG-106.

ENG-466^♦: Technical Writing 4 credits

This writing-intensive course provides an overview of technical writing and focuses on the production of informative practical texts such as instructions, manuals, and process descriptions. Prerequisite: ENG-105.

ENG-470: Methods for Teaching Writing, Grammar & Linguistics for Secondary Education 4 credits

This course is designed to help prospective teachers develop the knowledge and skills needed to teach writing, grammar, and linguistics at the middle and secondary levels. Emphasis is given to teaching methodologies that encourage effective implementation of writing, grammar, and linguistics instruction in middle and secondary English classrooms. Course content is strategically planned to enable students to make informed, context-based decisions about writing and language instruction. Practicum/field experience hours: 15. Fingerprint clearance required.

ENG-472: Methods for Teaching Literature for Secondary Education 4 credits

This course is designed to help prospective teachers develop the knowledge and skills needed to teach literature and other texts at the middle and secondary levels. Emphasis is given to teaching methodologies that encourage effective implementation of reading instruction in middle and secondary English classrooms. Course content is strategically planned to enable students to make informed, context-based decisions about instruction of literature and other texts. Practicum/field experience hours: 15. Fingerprint clearance required.

ENG-477^Q: Professional Writing Capstone 4 credits

This course critically surveys the broad competencies and understandings covered in the major, critically analyzes ethical issues in the writing professions, considers intersections between worldviews (particularly Christian worldviews) and the rhetorical and communications professions, and facilitates the creation of student portfolios of material and résumés/curriculum vitae. This capstone course needs to be completed at the end of program. Prerequisites: ENG-381, ENG-365, and ENG-466.

ENG-503: Writing Theory: An Applied Approach to Rhetoric and Composition 4 credits

This course provides historical, theoretical, and practical knowledge in rhetoric and writing. By studying classical and modern theories of rhetoric, contemporary theories of writing, and relationships between the two, students develop an understanding of key ways to think about writing today. To that end, this course emphasizes praxis: the relationship between practical and theoretical ways of knowing in the discipline. This course also offers an opportunity to practice rhetorical analysis, which is an important skill that will help students become effective, dynamic writers in their professions of choice.

ENG-505: Critical Practices for Teaching Literature 4 credits

This course focuses on techniques and theoretical approaches foundational to teaching literary texts. Techniques include close reading, passage analysis, and mastering critical nomenclature. Critical theories pertinent to contemporary scholarship are explored.

ENG-506: Social and Technological Contexts of Writing 4 credits

This course covers theoretical and practical scholarship about the social and technological dimensions of writing practices. At its core, this course explores writing as a situated social and technological act. To that end, students explore important theories of writing and technology that have impacted the discipline. This course demonstrates the relationship between theory and practice by considering how disparate peoples may think about the strategies and agendas embodied in various technologies and the artifacts that they produce. Electronic media are considered, as well as the artifacts individuals and organizations produce with them, such as Internet memes and viral videos. Students apply theories discussed in this course to analyze the sociotechnological contexts that give rise to artifacts from their professions.

ENG-507: Grant Writing 4 credits

This course examines the process, purpose, and practicalities of grant writing with emphasis on the electronic nature of current communication between funding foundations and grant seekers. Students will learn about funders and their concerns, the parts of grant proposals, and techniques for successful grant research and writing. The course will culminate in the student's completion of a grant proposal.

ENG-508: Multimedia Writing: Creating a Campaign for Social Media 4 credits

This course introduces learners to writing in various electronic modalities, with the aim of creating a campaign for social media. Informed by current theories of rhetoric and technology, learners create an original social media campaign and design appropriate supporting artifacts, including tweets, status updates, or other language for sharing via social media; supporting video and audio content; infographics; Web pages; and pictures, logos, or other supporting graphics.

[^] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Q Non-Transferable

ENG-509: Applied Theories of Rhetoric and Organizational Communication 4 credits

This course investigates organizational communication practices and how they are informed by contemporary rhetorical theories of ethics, identity, and work. Learners analyze the roles of ethics, constructions of power, difference, and persuasion both within and across organizations, as well as in communication practices that address the ways in which organizations present themselves to the public.

Entrepreneurship (ENT)

ENT-320♦: Public Relations and Networking Skills 4 credits

This course is designed to build effective communication and networking skills so that students can leverage contacts and relationships to create business opportunities. The importance of building a professional and trustworthy business reputation is also addressed.

ENT-420♦: New Venture Financing 4 credits

This course examines the growth of the venture capital market and provides students with an understanding of the advantages and risks associated with venture capital financing. Both start-up and growth needs are explored. The course focuses on the more practical aspects of structuring transactions that add value for the firm, owners, and financial backers. Prerequisite: ENT-445 or ENT-446.

ENT-435: Intrapreneurship and Innovation 4 credits

This course examines the importance of creating innovative work environments in small-, medium-, and large-scale organizations in order to ensure the long-term competitiveness of the firm. Innovation is explored from the perspectives of product development, internal process improvements, and strategic shifts. Students have the opportunity to participate in an experiential innovation project. Also AMP-435.

ENT-435HN[†]: Intrapreneurship and Innovation 4 credits

This course examines the importance of creating innovative work environments in small-, medium-, and large-scale organizations in order to ensure the long-term competitiveness of the firm. Innovation is explored from the perspectives of product development, internal process improvements, and strategic shifts. Students have the opportunity to participate in an experiential innovation project. Also AMP-435.

ENT-436^Δ: Entrepreneurship and Innovation 4 credits

This writing-intensive course teaches students to develop innovative solutions to real-world problems, developing and testing hypotheses as they learn to create a new product or service.

ENT-436HN^{Δ†}: Entrepreneurship and Innovation 4 credits

This writing-intensive course teaches students to develop innovative solutions to real-world problems, developing and testing hypotheses as they learn to create a new product or service.

ENT-445: Business Planning for Entrepreneurs 4 credits

This course explores the development of business plans; the preparation of financial packages; and the evaluation of opportunities, risks, and problems associated with business development. The course will culminate with the preparation of a comprehensive business plan for a new venture.

ENT-445HN[†]: Business Planning for Entrepreneurs 4 credits

This course explores the development of business plans; the preparation of financial packages; and the evaluation of opportunities, risks, and problems associated with business development. The course will culminate with the preparation of a comprehensive business plan for a new venture.

ENT-446: Business Execution 4 credits

In this course, students test hypotheses or develop new hypotheses, cycling through a series of tests to develop a scalable business model, culminating in the development of a pitch for potential investors. Prerequisite: ENT-436 or STG-110.

ENT-495: Research for Angel Investors 1 credits

Students will engage on a weekly basis with Entrepreneurs building scalable companies that are in the early stage of a capital raise. These are companies from across the country that have some technological component to their service or product and are presenting to the Angel Investor community to raise between \$250k and \$5 million. Students will investigate these companies side by side with our Investor members and learn how investment decisions are made. Student leadership in the research of each company is a critical insight to our members.

Environmental Science (ENV)

ENV-300♦: Environmental and Human Health Risk Assessment 4 credits

This course introduces students to the concepts, data sources, and methodologies used in the field of human risk assessment, including environmental hazard identification, dose-response assessment, exposure assessment, risk characterization, and risk communication. Prerequisite: ENV-301.

ENV-300HN^{Δ†}: Environmental and Human Health Risk Assessment 4 credits

This course introduces students to the concepts, data sources, and methodologies used in the field of human risk assessment, including environmental hazard identification, dose-response assessment, exposure assessment, risk characterization, and risk communication. Prerequisite: ENV-301.

ENV-301♦: Environmental Law 4 credits

This course will introduce students to the fundamentals of environmental protection laws in the United States, including environmental law in the areas of case law, common law and administrative law. Topics include air and water quality, toxic and hazardous substances, endangered species and wetlands, and coastal management issues.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ENV-303♦: Environmental Geology 4 credits

A study of the interaction between people and the geologic environment. Emphasis will be placed on catastrophic geologic processes, earth resources, pollution, and regional planning. Principles of Geographic Information System (GIS) will also be included.

ENV-305♦: Environmental Management and Sustainability 4 credits

This course will introduce students to environmental management practices and sustainability practices. Prerequisite: ENV-301.

ENV-402♦: Chemical Investigation and Remediation Strategies 3 credits

This course introduces students to various strategies that exist for remediating contaminated environmental samples, including air, water, and land. The following will also be discussed -- methods of site analysis, toxicology of chemical contamination, use of chemical fingerprinting, determination of exposure methods and exposure routes, analysis of epidemiological data, general methods for remediation of toxic and hazardous wastes, and use of both technical and moral considerations in decision making. Prerequisites: Prerequisites: BIO-181, BIO-181L and one of the following combinations: 1) CHM-231, CHM-231L, or 2) CHM-235, CHM-235L. Co-Requisite: ENV-402L.

ENV-402HN♦: Chemical Investigation and Remediation Strategies 3 credits

This course introduces students to various strategies that exist for remediating contaminated environmental samples, including air, water, and land. The following will also be discussed -- methods of site analysis, toxicology of chemical contamination, use of chemical fingerprinting, determination of exposure methods and exposure routes, analysis of epidemiological data, general methods for remediation of toxic and hazardous wastes, and use of both technical and moral considerations in decision making. Prerequisites: Prerequisites: BIO-181, BIO-181L and one of the following combinations: 1) CHM-231, CHM-231L, or 2) CHM-235, CHM-235L. Co-Requisite: ENV-402L.

ENV-402L♦: Chemical Investigation and Remediation Strategies Lab 1 credits

This course introduces students to various strategies that exist for remediating contaminated environmental samples, including air, water, and land. The following will also be discussed -- methods of site analysis, toxicology of chemical contamination, use of chemical fingerprinting, determination of exposure methods and exposure routes, analysis of epidemiological data, general methods for remediation of toxic and hazardous wastes, and use of both technical and moral considerations in decision making. Prerequisites: BIO-181, BIO-181L and one of the following combinations: 1) CHM-231, CHM-231L, or 2) CHM-235, CHM-235L. Co-Requisite: ENV-402.

ENV-402LHN♦: Chemical Investigation and Remediation Strategies Lab 1 credits

This course introduces students to various strategies that exist for remediating contaminated environmental samples, including air, water, and land. The following will also be discussed -- methods of site analysis, toxicology of chemical contamination, use of chemical fingerprinting, determination of exposure methods and exposure routes, analysis of epidemiological data, general methods for remediation of toxic and hazardous wastes, and use of both technical and moral considerations in decision making. Prerequisites: BIO-181, BIO-181L and one of the following combinations: 1) CHM-231, CHM-231L, or 2) CHM-235, CHM-235L. Co-requisite: ENV-402.

Engineering Science General (ESG)

ESG-202♦: Electrical & Electronic Circuits 3 credits

This course includes DC and AC electrical circuit analysis methods, and analog and digital circuit design and analysis, including operational amplifier linear circuits, and digital combinational logic circuits. Computer interface circuits which combine both digital and analog devices for interfacing physical systems will be introduced in the context of computer based hardware. Prerequisites: PHY-122 and PHY-122L. Co-requisite: ESG-202L.

ESG-202HN♦:Electrical & Electronic Circuits 3 credits

This course includes DC and AC electrical circuit analysis methods, and analog and digital circuit design and analysis, including operational amplifier linear circuits, and digital combinational logic circuits. Computer interface circuits which combine both digital and analog devices for interfacing physical systems will be introduced in the context of computer based hardware. Prerequisites: PHY-122 and PHY-122L. Co-requisite: ESG-202L.

ESG-202L♦: Electrical & Electronic Circuits Lab 1 credits

The laboratory section of ESG-202 supports and extends principles learned in the lecture course. Students will design and create circuits then test the input-output characteristics and compare to analysis. In addition, they will design circuits to interface with computer based electronic boards. Prerequisites: PHY-122, and PHY-122L. Co-Requisite: ESG-202.

ESG-202LHN♦: Electrical & Electronic Circuits Lab 1 credits

The laboratory section of ESG-202 supports and extends principles learned in the lecture course. Students will design and create circuits then test the input-output characteristics and compare to analysis. In addition, they will design circuits to interface with computer based electronic boards. Prerequisites: PHY-122, and PHY-122L. Co-Requisite: ESG-202.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ESG-250♦: Computer Aided Engineering & Lab 4 credits

This course introduces CAD features, including fundamentals of 3D modeling for design. Includes overview of modeling, graphical manipulation, part structuring, coordinate system, and developing a strategy of modeling. CAD software enables students to make the transition from 2D drafting to 3D modeling. Students use symbolic math software and 3D modeling tools to visualize and solve engineering problems. The course emphasizes industry practices for modeling parts, extracting drawings, and creating assemblies. Prerequisite: MAT-261.

ESG-330♦: Introduction to Robotics & Lab 4 credits

This course covers the basics of robotic design using concepts from computer, electrical, and mechanical engineering. Topics covered may include modeling of dynamic systems, utilizing sensors and actuators, interfacing computer hardware, and developing simple control algorithms. This course is a team and project based course where multiple robots will be designed and tested. Prerequisite: ESG-360 or BME-360.

ESG-360♦: Statics and Dynamics & Lab 4 credits

This course covers force and moment vectors, resultants, and principles of statics and free-body diagrams. The course presents students with applications to simple trusses, frames, and machines. Additional topics covered include properties of areas, second moments, internal forces in beams, laws of friction, principles of particle dynamics, mechanical systems and rigid-body dynamics, kinematics and dynamics of plane systems, and energy and momentum of 2-D bodies and systems. Prerequisites: PHY-121, PHY-121L, ESG-250, and MAT-264.

ESG-421♦: Advances in Computer Design & Lab 4 credits

This course describes and analyzes recent developments in computer design and architectures. Course topics focus on current research and tools that push the performance limits of advanced computer systems. Prerequisites: CST-307, and EEE-302.

ESG-430♦: Advanced Robotics & Lab 4 credits

This course covers advanced topics in robotic design using concepts from computer, electrical, and mechanical engineering. Topics covered may include advanced modeling of dynamic systems; tactile, force, and proximity sensors; computer vision; and power electronics associated with various actuators. This course is a team and project based course where multiple robots will be designed and tested. Prerequisites: ESG-330, MAT-345, and STG-330.

ESG-435♦: Control Systems and Robotics & Lab 4 credits

This course synthesizes applications of linear algebra to modal analysis of dynamical systems, controllability-observability, pole-placement design, separation principle, design of model-based compensators, frequency domain multiple-input multiple-output (MIMO) singular value analysis, linear quadratic regulator (LQR), Kalman filter, state estimation, and linear quadratic Gaussian (LQG) control system design. The course also presents an introduction to H-infinity/H-2 control system design, with applications to real-world control system design problems, robot dynamics, and robot control. The laboratory is designed to reinforce principles learned in the lecture and to apply these principles and theories to the design, assembly and control of a robot. All computational aspects of this project will be performed in Matlab. Prerequisite: EEE-213 or ESG-455.

ESG-441♦: Power & Energy Systems 3 credits

This course presents basic principles, technical details, and recent advances in power and sustainable energy systems. The course focuses on the generation of electrical power using a variety of energy sources such as solar, fossil, nuclear and renewable, including solar, geothermal, wind, hydroelectric, biomass and ocean. The course introduces students to power plant thermal cycle analysis. Prerequisites: PHY-122, PHY-122L, MAT-364, and either EEE-202 and EEE-202L or ESG-202 and ESG-202L. Co-Requisite: ESG-441L.

ESG-441L♦: Power & Energy Systems Lab 1 credits

The laboratory section of ESG-441 reinforces and expands learning of principles introduced in the lecture course. Hands-on activities include research projects aimed at suggesting solutions to problems in the areas of electrical power generation using a variety of energy sources such as solar, fossil, nuclear and renewable, including solar, geothermal, wind, hydroelectric, biomass and ocean. Prerequisites: PHY-122, and PHY-122L, MAT-364, and either EEE-202 or ESG-202. Co-Requisite: ESG-441.

ESG-451^Δ: Capstone Project I 2 credits

The first capstone course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course. Prerequisite: STG-430.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ESG-451HN^Δ: Capstone Project I **2 credits**

The first capstone course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course. Prerequisite: STG-430.

ESG-452^{ΔΩ}: Capstone Project II **2 credits**

The second capstone course provides students the opportunity to implement and present the applied research project designed, planned, and started in the first capstone course. The capstone project is a culmination of the learning experiences in an engineering program. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revision. This is a writing intensive course. Prerequisite: ESG-451.

ESG-452HN^Δ: Capstone Project II **2 credits**

The second capstone course provides students the opportunity to implement and present the applied research project designed, planned, and started in the first capstone course. The capstone project is a culmination of the learning experiences in an engineering program. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revision. This is a writing intensive course. Prerequisite: ESG-451.

ESG-455[♦]: Dynamic Systems & Lab **4 credits**

This course introduces students to the processes of mathematical modeling and analysis of dynamic systems with mechanical, thermal, electrical and fluid elements. Topics covered include: time domain solutions, analog computer simulation, linearization techniques, block diagram representation, numerical methods and frequency domain solutions. Hands-on lab activities enhance students' ability to mathematically analyze components and systems for mechanical performance. Prerequisites: MAT-364, ESG-202, and ESG-202L.

ESG-462[♦]: Current Topics in Biomedical Engineering & Lab **4 credits**

This course surveys the main areas of biomedical engineering and illustrates the application of engineering principles for the design of biomedical innovations. Topics focus on the various products and processes related to the health science industries, which may include concepts such as: diagnostic instruments, artificial organs, biomedical devices, bio-signaling, and health monitoring and information integration. The laboratory is designed to reinforce principles learned and to apply these principles and theories to design systems and devices that integrate mechanical, electronic, and biological elements. Computational software will be used to support laboratory data analyses.

English as a Second Language (ESL)

ESL-223N: SEI English Language Teaching: Foundations & Methodologies **3 credits**

This course presents the historical, legal, theoretical, and sociological foundations of programs of instruction for English language learners. It includes an examination of the role of culture in learning and instructional program models, with a focus on Structured English Immersion. Teacher candidates are instructed in immersion strategies and the use of assessment data. Practicum/field experience hours: 10. Fingerprint clearance required.

ESL-240: School, Community, and Family Culture **4 credits**

In this course, candidates explore school, community, and family culture. Emphasis is placed on the major goals, principles, and concepts of creating a culturally inclusive classroom and how understanding cultural and individual differences affects teaching and learning. Research is utilized to investigate the social, community, cultural, and familial contexts that influence student learning. Practicum/field experience hours: 10. Fingerprint clearance required.

ESL-250: School, Community, and Family Culture **4 credits**

In this course, candidates will explore school, community, and family culture. Emphasis will be placed on the major goals, principles, and concepts of multicultural education, including multiple perspectives in culture, history, and understanding cultural and individual differences in teaching and learning. Research is utilized to investigate the social, community, cultural, and familial contexts that influence learning and development. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ESL-223N.

ESL-341: Linguistics **4 credits**

In this course, candidates become familiar with the fundamentals of linguistics. Emphasis will be placed on phonology, morphology, syntax, semantics, pragmatics, sociolinguistics, historical linguistics, and first and second language acquisition theories. Candidates will synthesize research-based methods of incorporating linguistic principles into their teaching practice.

ESL-352: Literacy Development for English Language Learners **4 credits**

In this course, candidates will examine approaches to developing literacy for second language learners in K-8 schools. Emphasis will be placed on instructional and practice strategies for developing listening, speaking, reading, and writing skills; developing language and literacy through the content areas; using children's and young adult literature; and assessing students' literacy development in the second language. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ESL-240 or ESL-250.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ESL-358: ELL Curriculum and Methods of Instruction 4 credits

In this course, candidates will review curriculum and methods appropriate for the teaching of subject areas in an English language learner instructional setting. Emphasis is placed on: (a) linguistic, cognitive, developmental, and socio-cultural considerations in the design of multicultural curricula; (b) exploration of multicultural instructional methods and materials for use in language arts and content areas; (c) critique of current commercially prepared products. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ESL-223N.

ESL-365: ELL Assessment 4 credits

In this course, candidates will explore the principles of evaluating and structuring assessments. Candidates will design rubrics and examine assessment for the purposes of identification, placement, and instructional delivery. Emphasis will be placed on learning ways to integrate assessment procedures into any curriculum, and designing assessment tasks that allow for improved learning. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: ESL-358 or ESL-421.

ESL-410: Advanced Language Teaching Methodologies and Assessment 3 credits

This thorough examination of available methodologies, underlying philosophies, and assessment procedures includes lessons in teaching the four recognized skill areas (listening, speaking, reading, and writing) within the content areas and the use of standard tests. Prerequisite: ESL-423.

ESL-411: Language Teaching Curriculum and Materials Design 3 credits

This course integrates general school curriculum, materials, and the specific English language teaching goals with the actual design and rendering of instructional materials. Prerequisite: ESL-423.

ESL-414♦: English in its Social and Historical Setting 3 credits

This exploration of English language variation across sociocultural context and time discusses implications for building culturally appropriate ways of interacting in professional settings.

ESL-421: ELL Curriculum and Methods of Instruction 4 credits

In this course, candidates review curriculum and methods appropriate for teaching content in all subject areas in a variety of instructional settings that include English language learners (ELLs). Emphasis is placed on linguistic, cognitive, developmental, and socio-cultural considerations in the design of curricula intended for use with ELLs and critiquing current commercially prepared products. Practicum/field experience hours: 10. Fingerprint clearance required.

ESL-433N: Advanced Methodologies of Structured English Immersion 3 credits

In this course, teacher candidates continue to examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. They plan, deliver, and evaluate instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

ESL-433NH[†]: Advanced Methodologies of Structured English Immersion 3 credits

In this course, teacher candidates continue to examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. They plan, deliver, and evaluate instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

ESL-436N: Methods of Structured English Immersion for Early Childhood Education 3 credits

In this course, teacher candidates examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion (SEI) and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. Through Universal Design for Learning they plan, deliver, and evaluate standards-based instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

ESL-440N: Methods of Structured English Immersion for Elementary Education 3 credits

In this course, teacher candidates examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion (SEI) and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. Through Universal Design for Learning they plan, deliver, and evaluate standards-based instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ESL-446N: Methods of Structured English Immersion for K-12 Education 3 credits

In this course, teacher candidates examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion (SEI) and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. Through Universal Design for Learning they plan, deliver, and evaluate standards-based instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

ESL-490^Ω: Student Teaching for Elementary Education with an ESL Emphasis 8 credits

Teacher candidates are engaged in the student teaching experience that includes practical ESL Elementary (1st – 8th) classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Evaluation of Performance (STEP). Practicum/field experience hours: None. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

ESL-523: English Language Teaching Foundations & Methods 3 credits

This course presents the historical, legal, theoretical, and sociological foundations of programs of instruction for English language learners. It includes an examination of the role of culture in learning and instructional program models, with a focus on Structured English Immersion. Teacher candidates are instructed in immersion strategies and the use of assessment data. Practicum/field experience hours: 10. Fingerprint clearance required.

ESL-533: Advanced Methodologies of SEI 3 credits

In this course, teacher candidates continue to examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. They plan, deliver, and evaluate instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

ESL-536: Methods of Structured English Immersion for Early Childhood Education 3 credits

In this course, teacher candidates examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion (SEI) and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. Through Universal Design for Learning they plan, deliver, and evaluate standards-based instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

ESL-540: Methods of Structured English Immersion for Elementary Education 3 credits

In this course, teacher candidates examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion (SEI) and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. Through Universal Design for Learning they plan, deliver, and evaluate standards-based instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

ESL-545: Methods of Structured English Immersion for Secondary Education 3 credits

In this course, teacher candidates examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion (SEI) and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. Through Universal Design for Learning they plan, deliver, and evaluate standards based instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ESL-546: Methods of Structured English Immersion for K-12 Education 3 credits

In this course, teacher candidates examine the fundamentals of the legal, historical, and educational foundations of Structured English Immersion (SEI) and other instructional programs for English language learners. Theoretical principles of language acquisition and the role of culture in learning are examined. Methods of assessment are identified and analyzed. Teacher candidates identify strategies to promote English language development and improve student achievement. Through Universal Design for Learning they plan, deliver, and evaluate standards-based instruction for English language learners. Practicum/field experience hours: 15. Fingerprint clearance required.

Engineering Technology (ETG)

ETG-222♦: Experimental Methods 4 credits

This course covers topics in electrical and mechanical instrumentation and data acquisition. Topics include gauges and transducers, calibration, signal noise and conditioning, computerized data acquisition (DAQ) systems, results documentation, and statistical analysis of data. Prerequisite: PHY-111, PHY-111L & PHY-112, PHY-112L.

ETG-315♦: Materials and Microscopy & Lab 4 credits

This course teaches fundamental concepts of materials science as they apply to electric, magnetic, thermal, and optical properties. Students will study topics such as crystal structure, carrier transport, and solid-state physics. Laboratory exercises may focus on microscopy techniques and electro-plating. Prerequisites: PHY-112, PHY-112L, CHM-113, and CHM-113L.

ETG-410♦: Controls and Instrumentation & Lab 4 credits

This course examines the various methods of controlling electrical mechanical systems using lumped parameter models. Topics include interfacing with analog and digital sensors, motors, and actuators. Advanced control software will be used for programming the systems. Prerequisites: EET-202 and ETG-222, or EET-325

ETG-410HN♦: Controls and Instrumentation & Lab 4 credits

This course examines the various methods of controlling electrical mechanical systems using lumped parameter models. Topics include interfacing with analog and digital sensors, motors, and actuators. Advanced control software will be used for programming the systems. Prerequisites: EET-202 and ETG-222, or EET-325

ETG-415♦: Power and Energy Technologies 3 credits

This course examines methods of energy generation and delivery. Topics covered include motors and generators, power electronics, three-phase circuits, and power grid networks. Students will also contrast methods of power generation and storage as they consider their viability under different circumstances. Prerequisite: EET-302. Co-Requisite: ETG-415L.

ETG-415L♦: Power and Energy Technologies Lab 1 credits

This laboratory-based course reinforces the exploration of power and energy technologies by providing additional hands on experience with motors and generators, power electronics, three-phase circuits, and power grid networks. Prerequisite: EET-302. Co-requisite: ETG-415.

ETG-420♦: Quality Control 2 credits

This course will emphasize the necessary elements leading to quality production. Course topics will include Statistical Process Control (SPC) and Six-Sigma. Prerequisite: MAT-274.

ETG-498^{AO}♦: Senior Project I 2 credits

The first senior project course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course.

ETG-498HN♦: Senior Project I 2 credits

The first senior project course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course.

ETG-499^{AO}♦: Senior Project II 2 credits

The second senior project course provides students the opportunity to implement and present the applied research project designed, planned, and started in the first senior project course. The senior project is a culmination of the learning experiences while a student in the Engineering Technology programs. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revision. This is a writing intensive course. Prerequisite: Successful completion of ETG-498 with a grade of C or better.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ETG-499HN[♦]:	Senior Project II	2 credits
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The second senior project course provides students the opportunity to implement and present the applied research project designed, planned, and started in the first senior project course. The senior project is a culmination of the learning experiences while a student in the Engineering Technology programs. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revision. This is a writing intensive course. Prerequisite: Successful completion of ETG-498 with a grade of C or better.

Exercise Science (EXS)

EXS-200:	Resistance Training: Theory and Practice	3 credits
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This is a course that introduces the principles and techniques of strength training. This includes exercise physiology, injury prevention, sport and activity specific program design, and implementation. Students will gain a complete foundation of the practical application of resistance training exercise. Knowledge gained in this course will contribute to student preparation for professional certification in the field. Co-requisite: EXS-200L.

EXS-200L:	Resistance Training: Theory and Practice Lab	1 credits
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This is a course of field and laboratory experiences designed to reinforce the practical application of strength training techniques, with an emphasis on injury prevention strategies. Co-requisite: EXS-200.

EXS-202:	Cardiovascular Fitness: Theory and Practice	3 credits
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This course introduces the principles and techniques of cardiovascular activities and training. This includes exercise physiology, injury prevention, sport and activity specific program design, and implementation. Topics will include pathophysiology on and for a variety of conditions. Knowledge gained in this course will contribute to student preparation for professional certification in the field. Co-Requisite: EXS-202L.

EXS-202L:	Cardiovascular Fitness: Theory and Practice Lab	1 credits
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This is a course of field and laboratory experiences designed to reinforce the practical application of cardiovascular training techniques, injury prevention strategies, program design, and implementation. Co-requisite: EXS-202.

EXS-210:	Sports Performance Science and Coaching	3 credits
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This course provides the knowledge necessary to enter the field of sports performance. The topics of movement preparation, plyometrics, acceleration, absolute speed, and multidirectional speed are introduced. Students are also introduced to testing, movement skills, nutrition, mindset, motivation science, exercise techniques, and regeneration, as well as program planning for energy system development designed to improve strength, power, sprint, and speed. The course includes a focus on the science of coaching and training tactical populations such as fire, police, and military.

EXS-210L:	Sports Performance Science and Coaching Lab	1 credits
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This course provides the skills necessary to enter the field of sports performance, with a focus on field and laboratory experiences designed to reinforce the practical application of the skills introduced in lecture.

EXS-214:	Care, Treatment, and Prevention of Athletic Injuries	3 credits
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This course is designed to provide students with a basic knowledge and understanding of the principles of sports medicine, the care and treatment of athletic trauma, and the use of proper conditioning principles for the prevention of injury. Prerequisites: One of the following combinations: 1) BIO-155 and BIO-155L; or 2) BIO-201, BIO-201L, BIO-202, and BIO-202L; or 3) BIO-360, BIO-360L, and either BIO-474 or BIO-484. Co-requisite: EXS-214L.

EXS-214L:	Care, Treatment, and Prevention of Athletic Injuries Lab	1 credits
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This lab is designed to complement and support the principles taught in EXS-214. The course is designed to provide students with a basic knowledge and understanding of the principles of sports medicine; the care and treatment of athletic trauma; safety and its importance in related settings; and the use of proper conditioning principles of the prevention of injury. Prerequisites: One of the following combinations: 1) BIO-155 and BIO-155L; or 2) BIO-201, BIO-201L, BIO-202, and BIO-202L; or 3) BIO-360, BIO-360L, and either BIO-474 or BIO-484. Co-requisite: EXS-214.

EXS-235:	Exercise Testing and Prescription	4 credits
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This course incorporates the principles of assessment and program design for health and sport-specific analysis, static and functional exercise testing, and prescription of appropriate exercises. This includes exercise prescription for populations with various diseases and disabilities. Knowledge gained in this course will contribute to student preparation for professional certification in the field.

[♦] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EXS-247: Health Risk Appraisal, Weight Control & Management 4 credits

This course incorporates professional guidelines for health risk appraisal, assessment and stratification for a variety of health conditions for the general population. This also includes principles and guidelines for safe and effective physical activity and weight loss management. Knowledge gained in this course will contribute to student preparation for professional certification in the field.

EXS-250: Resistance Training and Cardiovascular Fitness 3 credits

This course introduces the principles and techniques of strength and cardiovascular training. Musculoskeletal, cardiac, and respiratory anatomy are discussed, as well as how these systems adapt and manage the stress of regular exercise. Effective exercise programming is also discussed and applied to various physical abilities to develop a well-rounded program. Knowledge gained in this course prepares students for professional certification in the field of Resistance Training and Cardiovascular Fitness.

EXS-250L: Resistance Training and Cardiovascular Fitness Lab 1 credits

This field and laboratory experience course introduces exercises that target specific muscle groups and systems of the body to show students how to design an effective exercise program. Students are introduced to effective coaching strategies, including progression, regression, coaching cues, and proper evaluation; these skills can then be applied to the professional development and delivery of an exercise session. Co-Requisite: EXS-250.

EXS-305: Motor Control and Motor Learning 4 credits

This course provides the knowledge necessary to teach motor skills throughout the lifespan and apply current principles and theories of motor control and motor learning to an athletic population. Content includes foundational neuroscience and connections with the musculoskeletal system, developmental motor milestones, motor control and motor learning principles, practice and feedback variables, teaching skill acquisition, and achieving maximum performance and retention.

EXS-316: Health Management and Administration 4 credits

This course focuses on business principles and procedures including fiscal resources, human resources, leadership skills, strategic planning, and facilitating partnerships with an emphasis in professionalism and an adherence to a code of ethics.

EXS-318: Principles of Corrective Exercises 4 credits

This course incorporates evidence-based concepts and application of corrective exercises to improve muscle imbalance and movement efficiency to decrease injury risk and promote recovery. Techniques include myofascial release, static and neuromuscular stretching, strength training, isometrics, and integrated dynamic movements. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L.

EXS-322: Clinical Instruction: Emergency, Taping, Bracing 4 credits

This 16-week-long course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. In this clinical course, students select, apply, evaluate, and modify appropriate standard protective equipment, taping, wrapping, bracing, padding, and other custom devices for the client/patient. In addition, students also clinically evaluate and manage a patient with an emergency injury or condition to include the assessment of vital signs and level of consciousness, activation of emergency action plan, secondary assessment, diagnosis, and provision of the appropriate emergency care (e.g., CPR, AED, supplemental oxygen, airway adjunct, splinting, spinal stabilization, control of bleeding). Students are assigned to an approved clinical instructor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Prerequisite: Acceptance into Athletic Training Clinical phase.

EXS-335: Kinesiology 3 credits

This course is an analysis of human movement, integrating knowledge of the skeletal, muscular, and neurological systems with the effects that gravity, friction, internal and external forces, and the laws of motion have on their functions. Topics presented include biomechanics of human bone, joint, and skeletal muscle; structure and function of the upper extremity, lower extremity, and spine; concepts of linear and angular kinematics and kinetics as applied to human motion; equilibrium and stability on land; and motion through a fluid medium of air or water. Included is the application of these factors to various types of physical skills. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-335L.

EXS-335HN⁴: Kinesiology 3 credits

This course is an analysis of human movement, integrating knowledge of the skeletal, muscular, and neurological systems with the effects that gravity, friction, internal and external forces, and the laws of motion have on their functions. Topics presented include biomechanics of human bone, joint, and skeletal muscle; structure and function of the upper extremity, lower extremity, and spine; concepts of linear and angular kinematics and kinetics as applied to human motion; equilibrium and stability on land; and motion through a fluid medium of air or water. Included is the application of these factors to various types of physical skills. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-335L.

EXS-335L: Kinesiology Lab 1 credits

This laboratory course is designed to apply the anatomical, kinesiological, and biomechanical principles learned in the lecture course to human body movement. Movement of all of the major joints of the body is analyzed by relative and absolute joint position and muscle action, and biomechanical terms - such as linear and angular kinematics, friction, work, power, energy, and torque - are applied to human motion. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-335.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EXS-335LHN^Δ:	Kinesiology Lab	1 credits
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This laboratory course is designed to apply the anatomical, kinesiological, and biomechanical principles learned in the lecture course to human body movement. Movement of all of the major joints of the body is analyzed by relative and absolute joint position and muscle action, and biomechanical terms - such as linear and angular kinematics, friction, work, power, energy, and torque - are applied to human motion. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-335.

EXS-340^Δ:	Physiology of Exercise	3 credits
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This writing intensive course is a study of the effects of exercise on the body. Topics include nutrition as the basis for physical activity; how energy is produced and utilized during physical activity; the energy delivery and vital functions of the respiratory, cardiovascular, muscular, and nervous systems during exercise; how these systems can be enhanced through training; the impact of ergogenic aids and environmental stress on performance; and the effect of exercise on body composition, weight control, aging, and disease prevention. The body's responses and adaptations to exercise at the systemic, as well as the subcellular level, are also discussed. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-340L.

EXS-340HN^Δ:	Physiology of Exercise	3 credits
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This writing intensive course is a study of the effects of exercise on the body. Topics include nutrition as the basis for physical activity; how energy is produced and utilized during physical activity; the energy delivery and vital functions of the respiratory, cardiovascular, muscular, and nervous systems during exercise; how these systems can be enhanced through training; the impact of ergogenic aids and environmental stress on performance; and the effect of exercise on body composition, weight control, aging, and disease prevention. The body's responses and adaptations to exercise at the systemic, as well as the subcellular level, are also discussed. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-340L.

EXS-340L:	Physiology of Exercise-Lab	1 credits
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This is a course of field and laboratory experiences designed to reinforce the basic principles learned in the lecture course. Skills of measurement and evaluation, including computerized methods employed to facilitate testing, are applied to physiological and systemic principles of exercise. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-340.

EXS-340LHN^Δ:	Physiology of Exercise-Lab	1 credits
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This is a course of field and laboratory experiences designed to reinforce the basic principles learned in the lecture course. Skills of measurement and evaluation, including computerized methods employed to facilitate testing, are applied to physiological and systemic principles of exercise. Prerequisites: BIO-155 and BIO-155L, or BIO-201 and BIO-201L, or BIO-210 and BIO-210L. Co-Requisite: EXS-340.

EXS-344:	Exercise Science: Special Populations	4 credits
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This course introduces analysis of special populations to assist in designing health education and physical fitness programs.

EXS-351:	Clinical Instruction in Athletic Training III	4 credits
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This 15-week-long course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in the information learned in prior courses. This sequence allows students to apply what they have learned in class on real patients. Students are assigned to an approved clinical instructor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Students are evaluated at a clinical site weekly to ensure proficiency in these skills. Prerequisite: EXS-350.

EXS-352:	Clinical Instruction:Health and Wellness Plans	4 credits
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This 15-week-long course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. In this course, students administer testing procedures to obtain baseline data regarding a client's/patient's level of general health (including nutritional habits, physical activity status, and body composition) then use this data to design, implement, evaluate, and modify a program specific to the performance and health goals of the patient. This includes instructing the patient in the proper performance of the activities, recognizing the warning signs and symptoms of potential injuries and illnesses that may occur, and explaining the role of exercise in maintaining overall health and the prevention of diseases. Students are assigned to an approved clinical instructor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Prerequisite: EXS-322.

EXS-353:	Clinical Instruction in Athletic Training IV	4 credits
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This 15-week-long course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in the information learned in prior courses. This sequence allows students to apply what they have learned in class on real patients. Students are assigned to an approved clinical instructor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Students are evaluated at a clinical site weekly to ensure proficiency in these skills. Prerequisite: EXS-351.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EXS-354: Clinical Instruction: Evaluation Techniques 4 credits

This course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. In this clinical course, students perform a comprehensive clinical examination of a patient with an upper extremity, lower extremity, head, neck, thorax, and spine injury or condition. This exam incorporates clinical reasoning in the selection of assessment procedures and interpretation of findings in order to formulate a differential diagnosis and/or diagnosis, determine underlying impairments, and identify activity limitations and participation restrictions. Based on the assessment data and consideration of the patient's goals, students provide the appropriate initial care and establish overall treatment goals. Students are assigned to a preceptor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Prerequisite: EXS-352.

EXS-355: Clinical Instruction: Rehabilitation Plans 4 credits

This 15-week-long course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. In this clinical course, students perform a comprehensive clinical examination of a patient with an upper extremity, lower extremity, head, neck, thorax, and spine injury or condition. Based on the assessment data and consideration of the patient's goals, the student creates and implements a therapeutic intervention that targets these treatment goals to include, as appropriate, therapeutic modalities, medications (with physician involvement as necessary), and rehabilitative techniques and procedures. Students integrate and interpret various forms of standardized documentation including both patient-oriented and clinician-oriented outcome measures to recommend activity level, make return-to-play decisions, and maximize patient outcomes and progress in the treatment plan. Students are assigned to an approved clinical instructor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Prerequisite: EXS-354.

EXS-356: Recognition and Evaluation of Athletic Injuries I 4 credits

This course is designed to provide students with specific knowledge and practical skills required to perform proper evaluation of the upper and lower body. Students learn to palpate body and soft tissue structures, and perform active, passive, and resistive range of motion testing, neurological testing, and special ligament tests for the major synovial joints in the body. Students are provided multiple opportunities to reinforce their knowledge with hands-on practice. Prerequisites: EXS-214 and EXS-214L.

EXS-357: Recognition and Evaluation of Athletic Injuries II 4 credits

Building on concepts of EXS-356, this course is designed to provide students the opportunity to further analyze and apply skills in the areas of evaluation of upper and lower body, palpation of body and soft tissue structures, range of motion testing, neurological testing, manual muscle testing, and special ligament tests for the major synovial joints in the body. Prerequisite: EXS-356.

EXS-358: Clinical Instruction: General Medical Conditions 4 credits

This course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in athletic training skills. In this clinical course, students develop, implement, and monitor prevention strategies for at-risk individuals (e.g., persons with asthma or diabetes, persons with a previous history of heat illness, persons with sickle cell trait) and large groups to allow safe physical activity in a variety of conditions. This includes obtaining and interpreting data related to potentially hazardous environmental conditions, monitoring body functions (e.g., blood glucose, peak expiratory flow, hydration status), and making the appropriate recommendations for individual safety and activity status. The student will also demonstrate the ability to recognize and refer at-risk individuals and individuals with psychosocial disorders and/or mental health emergencies. Students are assigned to a preceptor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Prerequisite: EXS-355.

EXS-366: General Medical Conditions 4 credits

This course provides a broad discussion of general medical conditions and associated pathologies of the physically active, as well as applicable information to athletes, coaches, and athletic trainers of all levels. This course covers evaluation techniques and equipment, coverage of all body systems and conditions, as well as special populations. Prerequisites: EXS-214 and EXS-214L.

EXS-366HN⁴: General Medical Conditions 4 credits

This course provides a broad discussion of general medical conditions and associated pathologies of the physically active, as well as applicable information to athletes, coaches, and athletic trainers of all levels. This course covers evaluation techniques and equipment, coverage of all body systems and conditions, as well as special populations. Prerequisites: EXS-214 and EXS-214L.

EXS-370: Pharmacology: Drug Use and Abuse 4 credits

This course examines current theories and practices of pharmacology and epidemiology of drug use as related to athletic training and sports medicine. Additional topics include drug abuse issues, such as: performance-enhancing substances; psychological, legal, social, and cultural implications; and approaches to solving drug abuse problems. Prerequisites: EXS-214 and EXS-214L.

⁴ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EXS-387: Therapeutic Modalities 3 credits

This course is a study of various therapeutic modalities that aid in the healing process of injuries. The course covers the theory behind and proper use of these modalities with laboratory experience. Prerequisites: EXS-214 and EXS-214L. Co-requisite: EXS-387L.

EXS-387L: Therapeutic Modalities Lab 1 credits

This course is designed to complement and support principles being taught in EXS-387. Practical applications of therapeutic modality application techniques are learned. Prerequisites: EXS-214 and EXS-214L. Co-requisite: EXS-387.

EXS-415^Δ: Advanced Athletic Training 4 credits

This capstone course acts as a culmination of the learning experiences during the athletic training education program at Grand Canyon University. Students are challenged to demonstrate higher level thinking, review evidence-based literature, and display athletic training professional behaviors. This course focuses the student for preparation for the Board of Certification (BOC) examination and fulfills the writing intensive course requirement. Prerequisite: EXS-458.

EXS-415HN^{Δ,†}: Advanced Athletic Training 4 credits

This capstone course acts as a culmination of the learning experiences during the athletic training education program at Grand Canyon University. Students are challenged to demonstrate higher level thinking, review evidence-based literature, and display athletic training professional behaviors. This course focuses the student for preparation for the Board of Certification (BOC) examination and fulfills the writing intensive course requirement. Prerequisite: EXS-458.

EXS-420: Management in Athletic Training, Health, and Athletics 4 credits

This course deals with the organization and administration tasks and techniques required in an athletic training program, the commercial health industry, and interscholastic and intercollegiate athletics. Topics include program and human resource management; budgeting; inventory and finance management; insurance; organizing and promoting health; and legal considerations, ethics, decision making, and communication in athletic training, health, and athletic settings.

EXS-421: Clinical Instruction in Athletic Training V 4 credits

This 15-week-long course is designed to provide a clinical setting in which athletic training students clinically apply and demonstrate proficiency in the information learned in prior courses. This sequence allows students to apply what they have learned in class on real patients. Students are assigned to an approved clinical instructor who supervises students on a daily basis through constant visual and auditory interaction and provides feedback to students on their progression. The mode of delivery is student-to-student demonstration and a clinical exam testing students' proficiency at a clinical site (high school, college, and/or professional) on true patients. Students are evaluated at a clinical site weekly to ensure proficiency in these skills. Prerequisite: EXS-353.

EXS-426: Theory of Prescribing Exercise 3 credits

This course covers the specific and applied use of exercise in prevention of injury, improvement of performance, and recovery from disability and dysfunction. Included are specific exercise routines, kinesiological principles, history and scope of rehabilitating exercise, abnormal clinical kinesiology, examination procedures, and reconditioning of specific disorders. Prerequisites: BIO-160 or BIO-201, and EXS-340. Co-requisite: EXS-426L.

EXS-426HN^{Δ,†}: Theory of Prescribing Exercise 3 credits

This course covers the specific and applied use of exercise in prevention of injury, improvement of performance, and recovery from disability and dysfunction. Included are specific exercise routines, kinesiological principles, history and scope of rehabilitating exercise, abnormal clinical kinesiology, examination procedures, and reconditioning of specific disorders. Prerequisites: BIO-155 or BIO-201, and EXS-340HN. Co-requisite: EXS-426LHN.

EXS-426L: Theory of Prescribing Exercise - Lab 1 credits

This course reinforces and expands learning gained in the lecture course. Practical applications and experiments include exercise prescription and rehabilitation techniques. Prerequisites: BIO-160 or BIO-201, and EXS-340. Co-requisite: EXS-426.

EXS-426LHN^{Δ,†}: Theory of Prescribing Exercise - Lab 1 credits

This course reinforces and expands learning gained in the lecture course. Practical applications and experiments include exercise prescription and rehabilitation techniques. Prerequisites: BIO-155 or BIO-201, and EXS-340HN. Co-requisite: EXS-426HN.

EXS-428: Biomechanics and Sports Nutrition 4 credits

This course is a study of biomechanics which incorporates muscle and joint anatomy with functional movement analysis. Additional topics include interactions between nutrition and exercise concepts to enhance performance, as well as a study of ergogenic aids. Prerequisite: BIO-319.

EXS-428HN^{Δ,†}: Biomechanics and Sports Nutrition 4 credits

This course is a study of biomechanics which incorporates muscle and joint anatomy with functional movement analysis. Additional topics include interactions between nutrition and exercise concepts to enhance performance, as well as a study of ergogenic aids. Prerequisite: BIO-319.

EXS-430^Δ: Health Promotion 4 credits

This writing intensive course is designed to provide the foundation of healthy behavior change in relation to influential factors. Content includes motivation for physical activity and healthy choices, as well as an introduction to the psychology of sports.

EXS-430HN^{Δ,†}: Health Promotion 4 credits

This writing intensive course is designed to provide the foundation of healthy behavior change in relation to influential factors. Content includes motivation for physical activity and healthy choices, as well as an introduction to the psychology of sports.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

EXS-431: Health Assessment 4 credits

This course will include assessment of needs, assets, and capacity for Health Education programs. This course provides an overview of accessing information, collecting data, examining factors related to enhancement or compromise of health, and determining needs based on findings.

EXS-432: Health Planning & Implementation 4 credits

This course will focus on planning, developing, implementing, monitoring, and evaluating health programs to meet the needs of an organization or population. An emphasis will be communication with all stakeholders throughout the process. Prerequisite: EXS-431.

EXS-432HN[‡]: Health Planning & Implementation 4 credits

This course will focus on planning, developing, implementing, monitoring, and evaluating health programs to meet the needs of an organization or population. An emphasis will be communication with all stakeholders throughout the process. Prerequisite: EXS-431.

EXS-441: Epidemiological Research 4 credits

In this course, students learn to develop a research plan, collect, analyze, and interpret data, and apply findings. Conceptualization of the problem, development of the hypothesis, and literature review are emphasized.

EXS-441HN[‡]: Epidemiological Research 4 credits

In this course, students learn to develop a research plan, collect, analyze, and interpret data, and apply findings. Conceptualization of the problem, development of the hypothesis, and literature review are emphasized.

EXS-455: Advanced Principles of Sports Performance 3 credits

This course expands the principles and techniques of strength training including sport- and activity-specific program design and implementation. Knowledge gained in this course will contribute to student preparation for professional certification in the field. Prerequisites: EXS-340 and EXS-340L. Co-Requisite: EXS-455L.

EXS-455HN[‡]: Advanced Principles of Sports Performance 3 credits

This course expands the principles and techniques of strength training including sport- and activity-specific program design and implementation. Knowledge gained in this course will contribute to student preparation for professional certification in the field. Prerequisites: EXS-340 and EXS-340L. Co-Requisite: EXS-455L.

EXS-455L: Advanced Principles of Sports Performance Lab 1 credits

This course applies the principles and techniques of strength training including sport- and activity-specific program design and implementation. Prerequisites: EXS-340 and EXS-340L. Co-Requisite: EXS-455.

EXS-455LHN[‡]: Advanced Principles of Sports Performance Lab 1 credits

This course applies the principles and techniques of strength training including sport- and activity-specific program design and implementation. Prerequisites: EXS-340 and EXS-340L. Co-Requisite: EXS-455.

EXS-458HN[‡]: Theory and Practice of Strength Conditioning 4 credits

This course is the study of the physiological responses to exercise, exercise technique, program design for anaerobic and aerobic exercise, exercise prescription principles, and organization and administration of strength and conditioning facilities. This course provides students information on the design and implementation of a successful strength and conditioning program. Emphasis is placed on assessment, description, and analysis of sport movement, and designing weight training programs to enhance performance variables. Workshops reinforce these goals, focusing on assessment of athletic performance, as well as the development of musculoskeletal flexibility, speed, agility, quickness, strength, and power. This course assists those students who desire to take the National Strength and Conditioning Association's Certified Strength and Conditioning (CSCS) Exam. Prerequisites: EXS-340HN and EXS-340LHN.

EXS-481^Ω: Sports Performance Capstone 4 credits

This capstone course acts as a culmination of the learning experiences during the exercise science program. A focus will be on career preparation including resume building, portfolio creation, and networking. Prerequisites: EXS-455 and EXS-455L.

EXS-485[♦]: Research Methods in Exercise Science 4 credits

This course provides students with basic instruction in research methods needed to read and critique published research in physical activity, health, nutrition, and sports performance. The course will also provide you with the skills needed to design studies and develop a research proposal. Statistical terminology and calculations will be introduced in the context of evaluating research. Students will be required to use statistical software throughout the course.

EXS-491: Applied Exercise Science 4 credits

In this course, students learn how sports performance professionals engage with athletes to promote health and human performance and apply content knowledge to a sports performance experience. Knowledge gained in this course prepares students for certification exams and careers in the field of sports performance. Prerequisite: EXS-481.

Finance (FIN)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

FIN-210♦: Personal Finance 4 credits

This course provides students with skills to make rational, personal finance decisions. There is an emphasis on money management and the responsible use of credit. Strategies for wealth building and retirement planning are also introduced.

FIN-210XV: Personal Finance 4 credits

This course provides students with skills to make rational, personal finance decisions. There is an emphasis on money management and the responsible use of credit. Strategies for wealth building and retirement planning are also introduced.

FIN-350♦: Fundamentals of Business Finance 4 credits

This course is an introduction to managerial finance and the financial markets, analysis of financial statements, time value of money, interest rates, asset valuation, assessment of risk, cost of capital, and capital budgeting. Prerequisites: ECN-220, ECN-351, or ECN-361; and ACC-240 or ACC-250.

FIN-375: Introduction to Investments 4 credits

This course studies stocks, bonds, mutual funds, exchange-traded funds, and other investment vehicles, and their application in investing. The securities market and trading procedures are discussed. The course introduces portfolio theory that is applicable to both professional portfolio management and individual investment decisions. The application of portfolio theory to corporate investments and diversification is also introduced. Prerequisite: FIN-350.

FIN-431♦: Financial Risk Management and Insurance 4 credits

This introductory course explores fundamental concepts in risk management and insurance. Students learn to identify and mitigate commercial and personal risks through the use of financial products, including insurance and other financial instruments. Prerequisites: MAT-251 and FIN-350.

FIN-432♦: Real Estate 4 credits

In this introduction to the real estate industry, students learn about the risks and rewards associated with investing in and financing both residential and commercial real estate. This course includes concepts and techniques relevant to a variety of careers related to real estate. This course also provides students with a better understanding of real estate for their own personal investment and financing decisions. Prerequisite: FIN-350.

FIN-450♦: Intermediate Finance 4 credits

This course is an advanced study of the finance function within the modern corporation. Topics covered include financial analysis and planning, the valuation of financial assets, capital budgeting, capital structure, and working capital management. Prerequisites: ACC-240 or ACC-260 or ACC-350; and FIN-350.

FIN-451♦: Investments and Portfolio Management 4 credits

This course is an advanced study of investments and their application in investment portfolio management. The course develops and emphasizes portfolio theory that is applicable to both professional portfolio management and individual investment decisions. The application of portfolio theory to corporate investments and diversification is also discussed. Prerequisite: FIN-450 or FIN-375.

FIN-504: Finance Principles 4 credits

This course is designed for individuals who are preparing for more advanced coursework in accounting and is designed for students who have not had finance in undergraduate work. Topics covered include financial analysis, financial planning, asset evaluation, capital structure, and working capital management.

FIN-650: Managerial Finance 4 credits

This course discusses elements of business financial decisions, including financial forecasting and development of proformas, management of working capital, capital budgeting, capital structure, and raising funds in capital markets. Prerequisite: FIN-504.

FIN-655: Investments 4 credits

This course is a study of stocks, bonds, and derivatives, and their application in portfolio management. This course discusses securities market and trading procedures, and develops and emphasizes portfolio theory. Material in the course is applicable to both professional portfolio management and individual investment decisions. Prerequisite: FIN-650.

FIN-660: Advanced Financial Strategies 4 credits

A course studying more advanced business strategies including mergers and acquisitions, spin-offs, carve-outs, partnerships, cooperative agreements, and their business applications for strategic growth or survival. It will also cover business value issues, the role of investment bankers, M&A specialists, and the issues to consider in cross-border transactions. Prerequisite: FIN-650.

Family Nurse Practitioner (FNP)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

FNP-630^Ω: Health Promotion and On-Campus Experience I 4 credits

This course covers preventive health care practices and integrates cultural and spiritual considerations, environmental factors, genetic influences, and national public health objectives. Emphasis is placed on development of the advanced practice registered nurse-patient relationship to enhance the effectiveness of patient education, counseling, and promotion of healthy lifestyle changes. Students explore concepts relevant to primary care, including family systems theory and developmental theory. Students are also introduced to well visits across the life span and build upon advanced health assessment skills in assessing the well child, adolescent, woman, and man. Specific emphasis is placed on clinical diagnostic reasoning and interpretation and the development of differential diagnoses based on clinical practice guidelines. Students examine professional and patient community resources and evaluate the use of integrative healing strategies in assisting patients to achieve health goals using evidence-based research. This course includes a required 3-day, on-campus experience. Prerequisite: NUR-634.

FNP-630CE^Ω: FNP-630 On-Campus Experience I 0 credits

This course covers preventive health care practices and integrates cultural and spiritual considerations, environmental factors, genetic influences, and national public health objectives. Emphasis is placed on development of the advanced practice registered nurse-patient relationship to enhance the effectiveness of patient education, counseling, and promotion of healthy lifestyle changes. Students explore concepts relevant to primary care, including family systems theory and developmental theory. Students are also introduced to well visits across the life span and build upon advanced health assessment skills in assessing the well child, adolescent, woman, and man. Specific emphasis is placed on clinical diagnostic reasoning and interpretation and the development of differential diagnoses based on clinical practice guidelines. Students examine professional and patient community resources and evaluate the use of integrative healing strategies in assisting patients to achieve health goals using evidence-based research. This course includes a required 3-day, on-campus experience. Prerequisite: NUR-634.

FNP-630N: Health Promotion and On-Campus Experience I 4 credits

This course covers preventive health care practices and integrates cultural and spiritual considerations, environmental factors, genetic influences, and national public health objectives. Emphasis is placed on development of the advanced practice registered nurse-patient relationship to enhance the effectiveness of patient education, counseling, and promotion of healthy lifestyle changes. Students explore concepts relevant to primary care, including family systems theory and developmental theory. Students are also introduced to well visits across the life span and build upon advanced health assessment skills in assessing the well child, adolescent, woman, and man. Specific emphasis is placed on clinical diagnostic reasoning and interpretation and the development of differential diagnoses based on clinical practice guidelines. Students examine professional and patient community resources and evaluate the use of integrative healing strategies in assisting patients to achieve health goals using evidence-based research. This course includes a required 3-day, on-campus experience. Prerequisite: NUR-634.

FNP-630NCE: FNP-630 On-Campus Experience I 0 credits

This course covers preventive health care practices and integrates cultural and spiritual considerations, environmental factors, genetic influences, and national public health objectives. Emphasis is placed on development of the advanced practice registered nurse-patient relationship to enhance the effectiveness of patient education, counseling, and promotion of healthy lifestyle changes. Students explore concepts relevant to primary care, including family systems theory and developmental theory. Students are also introduced to well visits across the life span and build upon advanced health assessment skills in assessing the well child, adolescent, woman, and man. Specific emphasis is placed on clinical diagnostic reasoning and interpretation and the development of differential diagnoses based on clinical practice guidelines. Students examine professional and patient community resources and evaluate the use of integrative healing strategies in assisting patients to achieve health goals using evidence-based research. This course includes a required 3-day, on-campus experience. Prerequisite: NUR-634.

FNP-652^Ω: Family Primary Care I 7 credits

This course focuses on the three levels of prevention and comprehensive primary care management of individuals with common, acute, and chronic conditions across the life span within a culturally and spiritually diverse environment. Evidence-based research is utilized to develop comprehensive, cost-effective, least invasive, quality health care. Care includes health promotion counseling, screening, and patient education to optimize patient and family health. Emphasis is placed on critical thinking and diagnostic reasoning to guide clinical decision making. Management of patient illness includes ordering diagnostic tests, prescribing pharmacological and nonpharmacological integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Practicum/field experience hours: 225. Prerequisite: FNP-630.

FNP-652N: Family Primary Care I 6 credits

This course focuses on the three levels of prevention and comprehensive primary care management of individuals with common, acute, and chronic conditions across the life span within a culturally and spiritually diverse environment. Evidence-based research is utilized to develop comprehensive, cost-effective, least invasive, quality health care. Care includes health promotion counseling, screening, and patient education to optimize patient and family health. Emphasis is placed on critical thinking and diagnostic reasoning to guide clinical decision making. Management of patient illness includes ordering diagnostic tests, prescribing pharmacological and nonpharmacological integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Practicum/field experience hours: 217. Prerequisite: FNP-630N.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

FNP-654^Ω: Family Primary Care II 7 credits

This course deepens its focus on the three levels of prevention and comprehensive primary care management of individuals with common, acute, and chronic conditions across the life span within a culturally and spiritually diverse environment. Students integrate evidence-based research in the development of comprehensive, cost-effective, least invasive, quality health care. Care includes health promotion counseling, screening, and patient education to optimize patient and family health. Students further advance their critical thinking and diagnostic reasoning skills to guide clinical decision making in the management of patient illness. Students also further develop their competence in ordering appropriate diagnostic tests, prescribing pharmacological and nonpharmacological integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Practicum/field experience hours: 225. Prerequisite: FNP-652.

FNP-654N: Family Primary Care II 6 credits

This course deepens its focus on the three levels of prevention and comprehensive primary care management of individuals with common, acute, and chronic conditions across the life span within a culturally and spiritually diverse environment. Students integrate evidence-based research in the development of comprehensive, cost-effective, least invasive, quality health care. Care includes health promotion counseling, screening, and patient education to optimize patient and family health. Students further advance their critical thinking and diagnostic reasoning skills to guide clinical decision making in the management of patient illness. Students also further develop their competence in ordering appropriate diagnostic tests, prescribing pharmacological and nonpharmacological integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Practicum/field experience hours: 217. Prerequisite: FNP-652N.

FNP-690^Ω: Practicum and On-Campus Experience II 7 credits

This practicum course is the final synthesis of the theoretical and clinical foundation of advanced practice nursing in the primary care management of individuals and families across the life span. Emphasis is placed on scope of practice, roles, contract negotiation, prescriptive authority, licensure, certification, and credentialing. Updates on legislation and health policy are incorporated utilizing multidimensional clinical case studies. Students also examine ethical issues that arise in clinical practice. This course includes a required 1-day, on-campus experience. Practicum/field experience hours: 225. Prerequisite: FNP-654.

FNP-690CE^Ω: FNP-690 On-Campus Experience II 0 credits

This practicum course is the final synthesis of the theoretical and clinical foundation of advanced practice nursing in the primary care management of individuals and families across the life span. Emphasis is placed on scope of practice, roles, contract negotiation, prescriptive authority, licensure, certification, and credentialing. Updates on legislation and health policy are incorporated utilizing multidimensional clinical case studies. Students also examine ethical issues that arise in clinical practice. This course includes a required 1-day, on-campus experience. Practicum/field experience hours: 225. Prerequisite: FNP-654.

FNP-690N: Practicum and On-Campus Experience II 6 credits

This practicum course is the final synthesis of the theoretical and clinical foundation of advanced practice nursing in the primary care management of individuals and families across the life span. Emphasis is placed on scope of practice, roles, contract negotiation, prescriptive authority, licensure, certification, and credentialing. Updates on legislation and health policy are incorporated utilizing multidimensional clinical case studies. Students also examine ethical issues that arise in clinical practice. This course includes a required 1-day, on-campus experience. Practicum/field experience hours: 217. Prerequisite: FNP-654N.

FNP-690NCE: FNP-690 On-Campus Experience II 0 credits

This practicum course is the final synthesis of the theoretical and clinical foundation of advanced practice nursing in the primary care management of individuals and families across the life span. Emphasis is placed on scope of practice, roles, contract negotiation, prescriptive authority, licensure, certification, and credentialing. Updates on legislation and health policy are incorporated utilizing multidimensional clinical case studies. Students also examine ethical issues that arise in clinical practice. This course includes a required 1-day, on-campus experience. Practicum/field experience hours: 225. Prerequisite: FNP-654.

Geography (GEO)

GEO-234[♦]: World Geography 4 credits

This course is a study of the physical environment and of the relationship of human cultures to each of the major geographic areas of the world, with special attention given to the United States.

German (GER)

GER-114[♦]: Elementary German I 4 credits

A Program of study using a text-workbook, practice tapes, computer practice, and classroom experience to develop the fundamentals of hearing, speaking, reading and writing.

GER-124[♦]: Elementary German II 4 credits

This course continues to build upon German vocabulary and language structure. Students participate in oral practice, short composition writing, textbook and other readings, and are exposed to German cultural activities. Prerequisite: GER-114. Prerequisite: GER-114.

Golf (GLF)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

GLF-111: Player Development: The Full 1 credits
Swing I

This course teaches students the principles and execution of the full swing. The course includes 45 hours of instruction, including both group and individual instruction. Students may use the golf course and practice facilities.

GLF-112: Player Development: The Full 1 credits
Swing II

This course builds on GLF-111 and advances students' knowledge of the principles and execution of the full swing. The course includes 45 hours of group and individual instruction. Students are expected to use the golf course and practice facilities to improve their skills. Prerequisite: GLF-111.

GLF-211: Player Development: The Short 1 credits
Game I

This course teaches students the principles and execution of the various elements of the short game. The course includes 45 hours of full-time instruction in areas such as pitching, chipping, sand shots, and putting. Both group and individual instruction methods are used. Students are expected to use the golf course and practice facilities to improve their skills.

GLF-212: Player Development: The Short 1 credits
Game II

This course builds on GLF-211 and advances student's knowledge of the principles and execution of the various elements of the short game. The course includes 45 hours of full-time instruction in areas such as pitching, chipping, sand shots, and putting. Both group and individual instruction are used. Students are expected to use the golf course and practice facilities to improve their skills. Prerequisite: GLF-211.

GLF-311: Player Development: Playing 1 credits
Strategy I

This course instructs students on the rules of golf, and course management strategy and techniques through a variety of instructional methods and on-course instruction. The course includes 45 hours of group and individual instruction. Students are expected to use the golf course and practice facilities to improve their skills. Prerequisites: GLF-112 and GLF-212.

GLF-312: Player Development: Playing 1 credits
Strategy II

This course builds on the concepts of playing strategy discussed in GLF-311. It advances students' knowledge of playing strategy through a variety of instructional methods and on-course instruction. The course includes 45 hours of group and individual instruction. Students are expected to use the golf course and practice facilities to improve their skills. Prerequisite: GLF-311.

GLF-411: Player Development: Teaching the 1 credits
Full Swing

This course teaches students the essential skills required to be an effective golf instructor and concentrates on teaching the full swing. The course includes 45 hours of instruction with a focus on the application of established teaching methods. Students are given the opportunity to gain hands-on teaching experience. Since the students' own playing ability will reflect on their ability to teach, they are also expected to use the golf course and practice facilities to continue to improve their skills. Prerequisites: GLF-112, GLF-212, and GLF-312.

GLF-412: Player Development: Teaching the 1 credits
Short Game

This course builds on GLF-411 and further develops students' golf instructional skills. The course concentrates on methods for teaching the short game, including pitching, chipping, sand shots, and putting. Students are given the opportunity to gain hands-on teaching experience. Since the students' own playing ability will reflect on their ability to teach, they are also expected to use the golf course and practice facilities to continue to improve their skills. Prerequisites: GLF-112, GLF-212, and GLF-312.

GLF-450: Golf Course Management and 4 credits
Operations

This course examines golf course operations with an emphasis on environmental sustainability, community development, customer relationships, and operational efficiencies. Course design and cost considerations involved in managing and improving golf course operations (including facilities, turf grass management, irrigation, and landscaping) are also included. Prerequisite: GLF-200.

GLF-460: Marketing and Revenue 4 credits
Generation in the Golf Industry

This course introduces the unique features of services marketing with a focus on the importance of growing a customer base within the golf industry. There is specific emphasis on generating innovative revenue models through competitive analysis to identify market opportunities and develop innovative growth strategies. The applications of social media and integrated marketing communications in the golf industry are also covered.

Government (GOV)

GOV-140[♦]: American Government and Politics 4 credits

This course is an introduction to American government and politics. It covers the constitutional foundations and governing institutions of the federal government. Throughout the course, students address common political themes, such as the nature and scope of governance, democracy, citizenship, and patterns of political behavior.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

GOV-140XV: American Government and Politics 4 credits

This course is an introduction to American government and politics. It covers the constitutional foundations and governing institutions of the federal government. Throughout the course, students address common political themes, such as the nature and scope of governance, democracy, citizenship, and patterns of political behavior.

GOV-210♦: Introduction to Comparative Government and International Politics 4 credits

This course compares and contrasts various systems of government in Western and non-Western countries, and explores political and diplomatic processes and how they affect international relations, nations, and localities.

GOV-210XV: Introduction to Comparative Government and International Politics 4 credits

This course compares and contrasts various systems of government in Western and non-Western countries, and explores political and diplomatic processes and how they affect international relations, nations, and localities.

GOV-260: Arizona Constitution & Government 1 credits

This course is a survey of the Arizona constitution and government. It meets the teacher certification requirement for Arizona government.

GOV-307♦: Introduction to Political Theory 4 credits

This course examines the political processes that determine who gets what, when, and how in society, and explores the issues and concepts that are used to develop and critique political theories. The classics as well as the more contemporary expressions of political thought are introduced.

GOV-307HN♦: Introduction to Political Theory 4 credits

This course examines the political processes that determine who gets what, when, and how in society, and explores the issues and concepts that are used to develop and critique political theories. The classics as well as the more contemporary expressions of political thought are introduced.

GOV-351♦: Public Administration 4 credits

This course explores the theory and practice of governmental administration at the national, state, and local levels and the implementation of legislation. It examines the role of the bureaucracy in the federal government and the states. Prerequisite: GOV-366.

GOV-357♦: Philosophy of Law 4 credits

This course is an introduction to topics in legal philosophy, including but not limited to the foundations of law, the relation of law and morality, law and ethics, whether persons have a duty to obey the law, the nature of property, the reasonableness of punishment, and the role of constitutions in law. Readings will be drawn from both historical and contemporary sources.

GOV-358♦: Research Methods in Government and Politics 4 credits

This course introduces the qualitative and quantitative methods used to research and study politics including hypothesis testing, inference, and causal reasoning. Prerequisite: GOV-140.

GOV-358HN♦: Research Methods in Government and Politics 4 credits

This course introduces the qualitative and quantitative methods used to research and study politics including hypothesis testing, inference, and causal reasoning. Prerequisite: GOV-140.

GOV-360♦: Civil Law 4 credits

This course provides an overview of the broad field of civil law, giving students a contemporary, practical understanding of the different fields of civil law. The course also provides analytical techniques for resolving legal problems.

GOV-364♦: Public Policy Analysis 4 credits

This course covers public policymaking in American federal government. It focuses on the impact of policy on public opinion, the media, interest groups, and governing institutions within the executive, the legislative, and the judicial branches. Prerequisite: GOV-140.

GOV-364HN♦: Public Policy Analysis 4 credits

This course covers public policymaking in American federal government. It focuses on the impact of policy on public opinion, the media, interest groups, and governing institutions within the executive, the legislative, and the judicial branches. Prerequisite: GOV-140.

GOV-366♦: State and Local Government 4 credits

This course focuses on the structures, processes, and policy outputs of state and local governments in the United States, with special reference to Arizona political, social, and economic environments. Prerequisite: GOV-140.

GOV-376♦: Municipal Government and Administration 4 credits

This course studies the development of city government in the United States; the governmental organization of several typical cities; the problems of taxation, law enforcement, health, housing, welfare, planning, and zoning; and the future of cities. Prerequisite: GOV-366.

GOV-378^♦: American Constitution 4 credits

This writing intensive course surveys the development of the American Constitution from colonial origins to the present. Constitutional law in the broader framework of political philosophy is discussed. Major themes in this course are federalism, the doctrine of separation of powers, and the impact of Supreme Court decisions on society. Prerequisite: GOV-140.

[^] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

GOV-378HN[♦]: American Constitution 4 credits

This writing intensive course surveys the development of the American Constitution from colonial origins to the present. Constitutional law in the broader framework of political philosophy is discussed. Major themes in this course are federalism, the doctrine of separation of powers, and the impact of Supreme Court decisions on society. Prerequisite: GOV-140.

GOV-455[♦]: Practice of Law 4 credits

This course focuses on three major areas of success required to become a successful legal practitioner: legal reasoning and analysis, practical legal research and writing, and "soft" skills of the legal profession such as the ability to gather information from persons and to communicate with persons in the legal arena. Prerequisite: GOV-357.

GOV-459^{ΔΩ}: Government Capstone 4 credits

This writing intensive course provides a broad overview of careers at the federal, state, and local levels of governing bodies and agencies. The course explores the role of a bureaucrat, legislative aid, lobbyist, or campaign worker. Issues that are unique to legislatures that make the law, and to public agencies that implement and enforce the law are also explored. This course examines selected theoretical and empirical topics in government. This course represents the culmination of undergraduate study within government. This capstone course needs to be completed at the end of program. This capstone course needs to be completed at the end of program. Prerequisites: GOV-364, GOV-307, GOV-358, GOV-378, GOV-140, and GOV-210.

GOV-467[♦]: Special Topics in Federal-State-Local Relations 4 credits

This course analyzes contemporary topics in federalism. Topics will vary but may include case studies on environmental, health care, transportation, and homeland security policies. Prerequisite: GOV-351.

Greek (GRK)

GRK-501: Elementary Greek I 4 credits

This course introduces the grammar of New Testament Greek with an emphasis on the vocabulary and morphology of the New Testament and the use of linguistic tools for the translation and interpretation of selected passages.

Health Care Administration (HCA)

HCA-240[♦]: Health Care Accounting and Billing 4 credits

This course introduces students to the fundamental principles of finance, accounting, and budgeting within the context of the health care industry. Students examine the various business units, roles, and structures involved in health care planning, budgeting, and accounting. Financial measurements and data analytics for managing costs and productivity are also explored.

HCA-255[♦]: Health Policy and Economic Analysis Care 4 credits

This course offers a broad overview of health care policy and the impact of government legislation on health care delivery. Students explore ways that economic forces, political trends, and changing social priorities influence policy development that directly impacts health care access, cost, and quality.

HCA-360: Health Information Technology and Management 4 credits

This course provides information and skills the health care administrator will require to integrate information technology and systems within the health care environment. Students examine basic components and functions of health care management information systems (HMIS) that work to manage data and resources which influence point-of-care decision-making by providers. Issues surrounding privacy, security, efficiency, and effectiveness of health care operations are also explored.

HCA-450: Quality in Health Care 4 credits

This course focuses on the knowledge and skills necessary to achieve quality outcomes in patient care. Through analysis and interpretation of quality and performance data, students develop strategies for quality improvement. Emphasis is placed on performance management tools, patient safety protocols, and process controls to ensure both quality and efficiency.

HCA-450HN[†]: Quality in Health Care 4 credits

This course focuses on the knowledge and skills necessary to achieve quality outcomes in patient care. Through analysis and interpretation of quality and performance data, students develop strategies for quality improvement. Emphasis is placed on performance management tools, patient safety protocols, and process controls to ensure both quality and efficiency.

HCA-455: Organizational Behavior and Leadership in Health Care 4 credits

This course introduces students to behavioral science concepts, as they apply to organizational structure, process, and function. Students explore the manager's role in relation to motivating teams and developing strategies for improving operational workflow and efficiencies. Effective communication, collaboration, negotiation, conflict resolution, and decision-making are emphasized.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HCA-455HN[†]: Organizational Behavior and Leadership in Health Care

4 credits

This course introduces students to behavioral science concepts, as they apply to organizational structure, process and function. Students explore the manager's role in relation to motivating teams and developing strategies for improving operational workflow and efficiencies. Effective communication, collaboration, negotiation, conflict resolution and decision-making are emphasized.

HCA-460: Operations and Risk Management in Health Care

4 credits

This course introduces students to the roles of local, state, and federal regulatory agencies and accrediting bodies; the enforcement of federal guidelines, standards, and regulations; and the issues and demands of the regulatory environment that affect health care in the United States. Students explore the legal responsibility of providers and agencies to provide a safe environment while delivering health care services.

HCA-460HN[†]: Operations and Risk Management in Health Care

4 credits

This course introduces students to the roles of local, state, and federal regulatory agencies and accrediting bodies; the enforcement of federal guidelines, standards, and regulations; and the issues and demands of the regulatory environment that affect health care in the United States. Students explore the legal responsibility of providers and agencies to provide a safe environment while delivering health care services.

HCA-465: Health Care Administration and Management

4 credits

This course introduces students to the management of human resources, with particular focus on resource decision making in health care environments. Students explore job market analysis, talent recruitment, training and development, revenue recovery efforts through retention initiatives, diversity training, and technology readiness. Students demonstrate health care management skills by utilizing tools used to manage staffing and work productivity.

HCA-470^Δ: Strategic Planning and Implementation in Health Care

4 credits

This writing intensive course introduces students to key business functions that drive strategic planning. Models for developing, implementing, and evaluating effective programs across varied health care settings are explored along with the principles of merger, acquisition, reorganization, and joint venture. Students apply tools utilized in strategic management of health care programs such as balanced score cards, LEAN, and Six Sigma.

HCA-470HN^{Δ†}: Strategic Planning and Implementation in Health Care

4 credits

This writing intensive course introduces students to key business functions that drive strategic planning. Models for developing, implementing, and evaluating effective programs across varied health care settings are explored along with the principles of merger, acquisition, reorganization, and joint venture. Students apply tools utilized in strategic management of health care programs such as balanced score cards, LEAN, and Six Sigma.

HCA-515: Analysis of Contemporary Health Care Delivery Models

4 credits

This course allows students to develop a comprehensive understanding of contemporary health care models from financial, economic, quality, access, and disparity perspectives, and to relate the ethical, cultural, political, and financial factors that drive and support them. It is from this broad, integrative, and comparative perspective that students begin defining their role and perspective as administrators within the health care system. Students begin to investigate their options and define their potential to serve as leaders of systematic improvement, within their health care discipline, based on changes in these driving factors.

HCA-530: Health Care Policies and Economics

4 credits

This course focuses on health care economics and policy. The core principles of health economics are studied, and students begin to explore practical financial-analysis skills that have immediate application within the health care industry. Students also study managerial decision-making processes based on cost, service, and other economic variables as well as how those decisions influence outcomes. Students will investigate health care policy and reform to understand the impact it makes on everyday practices of health care organizations.

HCA-540: Health Care Research Methods, Analysis, and Utilization

4 credits

This course focuses on the critical analysis of health care research and its application to the administration and delivery of health care services. Emphasis is placed on strategies to access current and relevant data, synthesize the information, and translate new knowledge into practice. Students are introduced to concepts of measurement, reliability, and validity, as well as ethical issues in the design and conduct of research through an evaluative process of health care initiatives and projects.

HCA-545: Organizational Structure, Dynamics, and Effectiveness

4 credits

This course focuses on the analysis of health care organizational structure and effectiveness. Topics include the distributive leadership model, decision making through collaboration and teamwork, and the integrative analysis of how change impacts other components of the system.

HCA-610: Essential Health Care Business Analysis

4 credits

This course focuses on the critical analyses of health care business operations and performance. Topics include analysis of financial performance, operational process analysis, and quality of service evaluation.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HCA-615: Human Resource Management and Marketing Communication Strategies 4 credits

This course focuses on essential managerial communication skills. Human resource topics include conflict management, negotiation, mediation, and coaching, as well as change management principles and the types of communication required for paradigm modification. Marketing topics include interdepartmental, cross discipline, external partner, and consumer communication and collaboration techniques.

HCA-616: Networking and Professional Readiness 2 credits

This course is designed to provide students with the foundational knowledge, skills, resources, and guidance to prepare for professional health care standards related to their future discipline within the industry. Emphasis is placed on critical thinking, awareness and identification of resources, communication strategies, and goal setting. Students apply learned face-to-face and electronic networking techniques and tactics to ensure professional readiness along with gaining knowledge of professional standards. Students prepare a professional portfolio and resume, and learn practical interviewing techniques to prepare for entry into/advancement within their chosen discipline-specific health care careers.

HCA-620: Business/Project Plan Evaluation and Development 4 credits

The focus of this course is to begin integrating all previous study and to identify the focus of students' final capstone project. Students evaluate and integrate the methodologies, considerations, and strategies for project or program design, planning, implementation, and evaluation that are relevant or specifically required by their specific health care discipline. Topics of investigation and consideration include (but are not limited to) financial and economic impact; resource allocation; competition; public and private educational requirements; availability of information technology; impact assessment of change; process improvement assessment; social, behavioral, and environmental impact; legal/ethical issues; and any other factors that impact the provision of care or subsequent outcomes within an organization and community. A collaborative group project approach is emphasized to enhance contribution and consideration from diverse experiences within the health care field. Prerequisite: HLT-610, HCA-610, or HIM-650.

HCA-650: Evidence-Based Research Project 4 credits

This capstone course provides an opportunity for students to complete the development of a comprehensive evidence-based project, plan, or proposal that addresses a problem, issue, or concern in their professional practice and can be implemented upon completion of the program. Projects address a problem amenable to research-based intervention; include a relevant and comprehensive literature review; propose a solution; and include a fully developed program, project, or business plan. The project also contains all the necessary information to implement the proposed solution, evaluate its outcome(s), and disseminate the findings.

HCA-670: Health Care Administration Practicum 4 credits

This course promotes the synthesis and application of knowledge and skills from the Master of Health Administration (MHA) program. Students identify a mentor and develop a relationship through which they examine the connection. This course promotes the synthesis and application of knowledge and skills from the Master of Health Administration (MHA) program. Students identify a mentor and develop a relationship through which they examine the connection between theory and practice. Students engage in leadership and administrative activities (e.g., committees, projects, staff education, and quality improvement) and, through reflection and writing, analyze and evaluate leadership behaviors and processes. Practicum/field experience hours: None. 150. Prerequisite: HCA-699.

HCA-675: Health Care Innovation 4 credits

This course provides an opportunity for students to envision the best possible future for the American health care system, and to understand what changes are necessary to achieve it. By focusing on and developing a set of recommendations for improving American health care, students appreciate the difference between forcing a current system to work harder, and redesigning a system in order to achieve desired outcomes. Students learn how transactional leaders can become transformational leaders, and begin the formal process of preparing for their capstone research project. Students gain understanding of how clinical data, knowledge, and practice are driving the development of health care surveillance systems through informatics. Topics of investigation include the role of informatics in improved patient care and research, organization and national bio-surveillance, and clinical decision support. Consideration is given to legal and regulatory issues in private and public health practice and as they apply to public health security and preparedness in response to bioterrorism and disasters. Prerequisite: HCA-620.

HCA-680: Leadership in Health Care 4 credits

In this course, students learn key leadership principles and skills critical to their development as health care professionals capable of leading change initiatives that align with the strategic vision of health care organizations and the evolving landscape of health care. Students assess their own leadership qualities, an organization's readiness for change, and barriers that may affect the adoption of innovations and quality improvement processes. The course emphasizes systems thinking while students work toward honing problem-solving, teamwork, and communication skills necessary for leading initiatives within health care organizations.

HCA-699^Ω: Evidence-Based Research Project 4 credits

This capstone course provides an opportunity for students to complete the development of a comprehensive evidence-based project, plan, or proposal that addresses a problem, issue, or concern in their professional practice and can be implemented upon completion of the program. Projects address a problem amenable to research-based intervention; include a relevant and comprehensive literature review; propose a solution; and include a fully developed program, project, or business plan. The project also contains all the necessary information to implement the proposed solution, evaluate its outcome(s), and disseminate the findings. Prerequisite: HCA-675.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HCA-807: Structures and Governance in Health Care 3 credits

This course provides learners with an overview of the various governance structures in the health care industry and their connections with leadership. Public, private, non-profit, and for-profit governance structures are examined. Public and private reimbursement options are reviewed. Prerequisite: RES-811 or RES-850.

HCA-812: Health Care Regulation 3 credits

This course provides an overview of many levels of regulation in the health care industry. These include state boards, medical boards, professional boards, and the federal government. Various organizational and self-regulatory measures are presented, and the impact of mandatory and voluntary measures are discussed. Prerequisite: RES-850.

HCA-817: Professional Development and Leadership in Health Care 3 credits

The course explores the connection between leadership and professional development with a focus on assisting employees in achieving personal potential. The course promotes creating a culture of shared values and ownership to promote a standard of organizational excellence. Prerequisite: RES-861.

HCA-822: Building a Culture of Community in Health Care 3 credits

The course discusses the importance of assessing the current culture of an organization as well as how the concept of collaboration is employed as a means for building a culture of community in health care. Systems thinking and inter-professional teaming are presented as strategies for building a collaborative community. Prerequisite: RES-861.

HCA-827: Sustainability of Health Care Organizations 3 credits

The course addresses how continuous improvement guides organizations to promote change and innovation as a means of being viable and sustainable. Prerequisite: RES-866.

Health Informatics (HCI)

HCI-600: Foundations of Informatics 4 credits

This course introduces fundamentals of the U.S. health care system and the role and value of informatics in the practice of evidence-based research and medicine. Students learn key concepts of health care information infrastructure, systems, technologies, applications, and data standards that are critical for optimizing patient care. Students also examine how health care providers and caregivers use technology, information, and knowledge to improve patient care, administration, research, and education across the rapidly evolving health care system.

HCI-655: Electronic Health Records 4 credits

This course prepares students to evaluate, implement, and optimize electronic health record (EHR) technology to support the management and use of clinical data. Students examine the architecture of EHRs and analyze the challenges of their design and use, including system integration requirements, distributed user bases, storage of complex data, high security requirements, and the diverse information needs of various end users. Students also apply project management techniques to the planning and implementation of EHRs. Prerequisite: HIM-650.

HCI-660: Health Data Analytics 4 credits

This course introduces techniques for extracting data and creating knowledge from health care data sets. Students examine methods for describing, summarizing, and presenting data. There is specific focus on understanding the needs of information users, identifying organizational objectives, and ensuring that the analytical methodology chosen meets those needs. Prerequisite: HIM-650.

HCI-665: Health Information Systems Security 4 credits

This course examines the security, privacy, and compliance issues that guide the design and use of health information systems and health care data. Students analyze the regulatory environment and differentiate the regulations, laws, and ethical practices that guide information governance and the uses of data with particular emphasis on patient confidentiality and privacy. Information security tools and strategies for risk assessment, third-party risk management, and audits are also examined. Prerequisite: HIM-615.

HCI-670: User Interface Design for Informatics 4 credits

In this course, students apply principles of human factors engineering to the design of optimal user interfaces that improve clinical processes. Students examine clinical decision support and clinical workflow analysis, modeling, reducing data entry errors, and usability testing in efforts to improve the experience of end users while prioritizing patient safety and the delivery of quality health care.

HCI-690: Health Informatics Applied Project and Practicum 4 credits

This course provides students the opportunity to integrate what they have learned in the program in an applied project related to a major area of health informatics, such as health information management, information systems, or health informatics. Students are expected to demonstrate leadership and advanced critical-thinking and problem-solving skills in the development of a comprehensive and professional project plan and solution that is grounded in current informatics research and methods. Practicum/field experience hours: 150. Prerequisites: HCA-680, HCI-660, and HCI-670.

Hebrew (HEB)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HEB-101♦: Elementary Biblical Hebrew 4 credits

This course is designed to teach students to read biblical Hebrew. It is an introduction to the language of the Hebrew Bible. It focuses on the vocabulary, grammar, and cultural aspects of biblical Hebrew with a goal of translation at a beginning level. Students translate the book of Ruth.

HEB-102♦: Elementary Hebrew Exegesis 4 credits

This course is a continuation of HEB-101. Students continue translating sections of the Hebrew Bible at a basic level focusing on such books as Genesis, Amos, and the poetical books. Prerequisite: HEB-101.

HEB-501: Elementary Hebrew I 4 credits

This course introduces biblical Hebrew with a focus on grammar, syntax, vocabulary, and the use of linguistic tools for the translation and interpretation of selected passages.

Health Care Informatics (HIM)

HIM-200: Principles and Practices of Health Information Management 4 credits

This course surveys the field of health information management. Students investigate potential career paths and learn the fundamental medical, legal, ethical, and professional issues and standards affecting the field. The course also includes an overview of the health care industry, hospital operations, and electronic health records and documentation standards and practices.

HIM-200HN[‡]: Principles and Practices of Health Information Management 4 credits

This course surveys the field of health information management. Students investigate potential career paths and learn the fundamental medical, legal, ethical, and professional issues and standards affecting the field. The course also includes an overview of the health care industry, hospital operations, and electronic health records and documentation standards and practices.

HIM-310[‡]: Clinical Data Classification 4 credits

This course introduces the functions and relationships between health care classification systems, vocabularies, terminologies, and standards required for the privacy, security, storage, utilization, and standardization of clinical data. Students differentiate systems for clinical classification and coding as well as for various health information exchange models. Prerequisites: BIO-192, BIO-192L, and HIM-200.

HIM-350: Classification of Diagnostic Data 4 credits

This course introduces the principles of and industry guidelines for diagnostic classification systems in health care settings. Focus is on the application of classification systems in health care facilities. Students examine types of diagnostic classification systems and coding guidelines as well as practice coding. Prerequisites: BIO-330 and HIM-310.

HIM-355: Classification of Procedural Data 4 credits

This course introduces the principles and industry guidelines for procedural classification systems in health care settings. Focus is on the application of classification systems in health care facilities. Students examine types of procedural classification systems and coding guidelines as well as practice coding. Prerequisites: BIO-330 and HIM-310.

HIM-370[‡]: Health Care Information Systems 4 credits

In this course students evaluate health information systems architecture and data storage design and apply concepts of the systems design life cycle in order to facilitate the use of information assets to meet strategic goals and objectives within health care organizations. Students also assess information systems to ensure compliance with regulatory requirements and examine information security measures including performing risks assessments, data protection, and recovery procedures. Prerequisite: HIM-310.

HIM-370HN[‡]: Health Care Information Systems 4 credits

In this course students evaluate health information systems architecture and data storage design and apply concepts of the systems design life cycle in order to facilitate the use of information assets to meet strategic goals and objectives within health care organizations. Students also assess information systems to ensure compliance with regulatory requirements and examine information security measures including performing risks assessments, data protection, and recovery procedures. Prerequisite: HIM-310.

HIM-410: Fundamentals of Health Care Informatics Lecture & Lab 4 credits

This course examines the history, application, impact, and future need for informatics in health care. Emphasis is placed on standards, processes, and systems that impact areas of evidence-based medicine, administrative and clinical practices, information infrastructure, security, and electronic health records. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on initial exposure to the computer systems, software tools, and processes used in health care informatics. Prerequisites: BIO-181, BIO-181L, ITT-200, CST-217, and CST-307.

HIM-412: Health Care Information Systems and Technology Lecture & Lab 4 credits

This course examines the application of information systems in health care settings, beginning with an analysis of the broad meaning and nature of information and systems. The focus narrows to utilization of computer technologies, configurations, and applications as tools to benefit health care environments. Emphasis is placed on the challenges related to the development and implementation of effective information systems in light of a rapidly and continuously changing health care model, evolution of technology team member roles and responsibilities, and advancement of technological requirements within the health care system. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on interacting with health care information systems, security tools and protocols, and cross-industry interoperability. Prerequisites: ITT-200, CST-217, and CST-307.

[‡] Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

HIM-415: Clinical Data Management 4 credits

This course focuses on the management and integration of health care data within health care organizations for ensuring the accuracy and accessibility of data used for reimbursement and in the revenue cycle. Students examine health care informatics standards and apply processes and techniques for collecting and reporting data to meet enterprise needs and for supporting clinical documentation and quality improvement initiatives. Prerequisites: HIM-350, HIM-355, and HIM-370.

HIM-415HN^Δ: Clinical Data Management 4 credits

This course focuses on the management and integration of health care data within health care organizations for ensuring the accuracy and accessibility of data used for reimbursement and in the revenue cycle. Students examine health care informatics standards and apply processes and techniques for collecting and reporting data to meet enterprise needs and for supporting clinical documentation and quality improvement initiatives. Prerequisites: HIM-350, HIM-355, and HIM-370.

HIM-425: Principles of Health Care Administration and Leadership 4 credits

This course focuses on principles related to management and administration of health information services with emphasis on organizational culture, effective leadership and communication, and financial management. Students assess organizational and departmental needs, propose appropriate solutions, and apply project management techniques to foster efficient use of resources within health care organizations. Prerequisite: HIM-200.

HIM-430^Δ: Data Governance 4 credits

This writing-intensive course is a study of legal, ethical, and regulatory principles and frameworks that guide data governance within health care organizations. Students examine policy issues and current laws related to uses of health information and determine processes and organizational policies to effectively and ethically manage data and personal health information. Prerequisites: HIM-310 and HIM-370.

HIM-450: Health Care Data Management Lecture & Lab 4 credits

This course examines health care information resources and their impact on administrative functions, interfaces, data security and integrity, and business processes. Topics include: use of relational database management software to construct tables, develop forms, create and execute queries, design and deploy reports, and advance database concepts to automate contemporary business processes. Students are able to distinguish between various network hardware technologies and associated data communication protocols in order to direct how organizations design and implement data networks. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on building SQL databases and performing basic CRUD operations: create data, retrieve data, update data, and delete data. Prerequisites: ITT-200, CST-217, and CST-307.

HIM-452: Quality Management in Health Care 4 credits

In this course students apply quality assessment techniques, quality management tools, and performance improvement processes to recommend measures to improve quality and patient care and safety. Students participate in clinical information analysis through mining, exploring, and analyzing clinical data to recognize trends that demonstrate quality, safety, and effectiveness and identify best practices for the management of health care information, systems, and quality to support organizational decision making. Prerequisite: HIM-415.

HIM-484: Innovations in Health IT Lecture & Lab 4 credits

This course provides students with a broad view of enabling information technologies in the health-care related industries. Students analyze how IT improves economy of scale, increases efficiency, widens access to education and self-care, and facilitates integration of local and cloud-based systems. Students examine solutions using cross-disciplinary knowledge in the health care ecosystem, including health economics, decision support, operational effectiveness, automation, insurance exchanges, and regulatory compliance. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on interaction with a variety of systems, tools, simulators, and websites. Prerequisites: ITT-200, CST-217, and CST-307.

HIM-490^Δ: Health Information Management Capstone 4 credits

The capstone course provides students with the opportunity to integrate and synthesize the knowledge and skills acquired throughout their coursework in the health information management program. Students complete an applied project that demonstrates critical thinking and attainment of professional health information management competencies. Practicum/field experience hours: 80. Prerequisites: HLT-364, HIM-425, and HIM-452.

HIM-515: Foundations and Concepts of Health Care Informatics 4 credits

This course examines the history, application, impact, and future need for informatics in health care. Emphasis is placed on standards, processes, and systems that impact areas of evidence-based medicine, administrative and clinical practices, information infrastructure, security, and electronic health records.

HIM-615: Health Care Information Systems and Technology 4 credits

This course examines the application of information systems in health care settings, beginning with an analysis of the broad meaning and nature of information and systems. The focus narrows to utilization of computer technologies, configurations, and applications as tools to benefit health care environments. Emphasis is placed on the challenges related to the development and implementation of effective information systems in light of a rapidly and continuously changing health care model, evolution of technology team member roles and responsibilities, and advancement of technological requirements within the health care system.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HIM-650: Health Care Data Management 4 credits

This course examines health care information resources and their impact on administrative functions, interfaces, data security and integrity, and business processes. Topics include use of relational database management software to construct tables, develop forms, create and execute queries, design and deploy reports, and advance database concepts to automate contemporary business processes. Students are able to distinguish between various network hardware technologies and associated data communications protocols in order to direct how organizations design and implement data networks. Prerequisites: HIM-515, HCI-600, or NUR-514; and HIM-615.

History/Social Science (HIS)

HIS-110♦: World History Themes 4 credits

This course surveys global civilizations from Africa and the Americas to Eurasia as an overview of the principal cultural, political, and economic themes that shaped world civilization.

HIS-110XV: World History Themes 4 credits

This course surveys global civilizations from Africa and the Americas to Eurasia as an overview of the principal cultural, political, and economic themes that shaped world civilization.

HIS-144♦: U.S. History Themes 4 credits

This course provides an overview of the principal political, economic, and cultural themes and constitutional developments that shaped the United States from the Colonial period into the 20th Century.

HIS-144XV: U.S. History Themes 4 credits

This course provides an overview of the principal political, economic, and cultural themes and constitutional developments that shaped the United States from the Colonial period into the 20th Century.

HIS-231♦: American Military History 3 credits

On demand. A survey of the development of the American military and militia system from its English origin through the present. The principles of warfare and military leadership, the soldier's experience on the battlefield, and the place of the military within the American democracy are threads of continuity woven by the instructor through the course. Prerequisite: Instructor's approval.

HIS-255[^]♦: Historical Research and Applied Methods 4 credits

This writing intensive course focuses on research methods used in historical research and writing, and application of theories and methodologies to the analysis of historical materials. Emphasis is placed on research, writing, and critical thinking in historical contexts.

HIS-304: Methods of Teaching History in Secondary Schools 4 credits

The goal of this course is to provide history teacher candidates with the knowledge and skills needed to teach history in secondary classrooms. Teacher candidates explore current research-based pedagogical practices for teaching history, connecting educational theory to specific innovative engagement practices for diverse learning populations. History teacher candidates also are given opportunities to design instruction that engages secondary students in historical inquiry, examines processes for selecting primary and secondary source historical content, and uses authentic assessments to measure student learning. Practicum/field experience hours: 15. Fingerprint clearance required.

HIS-306♦: Historians in Theory and Practice 4 credits

This course introduces the study of history as a scholarly discipline, emphasizing significant historians, subdisciplines of the field, and the foundational methodological and theoretical tools of historians.

HIS-310♦: Civil War and Reconstruction 4 credits

This course examines the causes, conduct, and consequences of the Civil War and the Reconstruction.

HIS-310HN[^]♦: Civil War and Reconstruction 4 credits

This course examines the causes, conduct, and consequences of the Civil War and the Reconstruction.

HIS-320♦: Modern Middle East 4 credits

This course provides a political, cultural, and economic history of the Middle East since 1914.

HIS-325♦: Ancient Mediterranean History 4 credits

This course examines the historical and cultural developments of ancient worlds including Egypt, Greece, and Rome with an emphasis on social, political, and economic developments.

HIS-327♦: Community History 4 credits

This course examines the techniques, sources, and methods of collecting and presenting history at the local level. Emphasis is placed on how communities create memory and historical records, and their uses for students, educators, researchers, and communities.

HIS-331♦: 20th Century World 4 credits

This course is a study of the 20th century world, focusing on major trends, events, and personalities of the era.

HIS-337♦: Material Culture and Museums 4 credits

This course provides a broad introduction to the field of material culture and museum studies. Students use techniques of applied history to learn from objects and study the way museums create exhibits, conserve artifacts, and teach history through material culture.

HIS-344♦: Colonial and Revolutionary America 4 credits

This course is a study of the social, political, intellectual, and cultural life of the American republic from 1607 to 1783.

[^] Writing intensive course | ♦ Fulfills General Education requirement | [^] Honors Major Course | ^Ω Non-Transferable

HIS-347♦: Historic Preservation 4 credits

This course provides a survey of historic preservation and cultural resource management. Topics covered include the field's history; methods, and practices through the methods of applied history in environmental law and conservation; and current practices in management of historic sites, structures, and neighborhoods.

HIS-350♦: Survey of Asian Empires 4 credits

This course provides a historical survey of Asia, including India, China, Southeast Asia, Korea, and Japan. Emphasis is placed on political, economic, and social developments.

HIS-354♦: England to 1688 4 credits

This course is a study of the political, social, cultural, economic, and religious history of England from prehistoric times to the Glorious Revolution of 1688.

HIS-380♦: Renaissance and Reformation 4 credits

This course examines the intellectual and religious developments of Europe between the 13th and 16th centuries including Renaissance Italy and Reformation Germany with an emphasis on social, political, and economic developments.

HIS-380HN♦: Renaissance and Reformation 4 credits

This course examines the intellectual and religious developments of Europe between the 13th and 16th centuries including Renaissance Italy and Reformation Germany with an emphasis on social, political, and economic developments.

HIS-386♦: War and Revolution 4 credits

This writing intensive course examines the political, economic, and social aspects of selected wars and revolutions. It provides a comparative study of social conflicts with an emphasis on the patterns of individual and collective action, violence, and social changes.

HIS-387♦: Public History Seminar 4 credits

This course covers various topics in public history, which may include archives and records management, historical interpretation, cultural tourism, oral history, and other fields/applications of history in public spheres.

HIS-426♦: 20th Century Europe 4 credits

This course examines the political, economic, and social developments of European history in the 20th century from the foundations of late 19th century unification through the struggles of globalization and terrorism at the beginning of the 21st century. Emphasis is placed on the impact of two world wars, totalitarianism, the decline of empire and the Cold War.

HIS-426HN♦: 20th Century Europe 4 credits

This course examines the political, economic, and social developments of European history in the 20th century from the foundations of late 19th century unification through the struggles of globalization and terrorism at the beginning of the 21st century. Emphasis is placed on the impact of two world wars, totalitarianism, the decline of empire and the Cold War.

HIS-450♦: U.S. History Since 1945 4 credits

This course examines the principal social, political, economic, and global events that have shaped the American experience during the Cold War era.

HIS-450HN♦: U.S. History Since 1945 4 credits

This course examines the principal social, political, economic, and global events that have shaped the American experience during the Cold War era.

HIS-460♦: Russian History 4 credits

This writing-intensive course is a study of the Russian nation and people, emphasizing the Soviet era of Russian history.

HIS-463♦: Women in History 4 credits

This course compares the political, social, economic, and cultural history of women in societies, focusing on contrasting experiences of women across time, geographic regions, and cultures.

HIS-465♦: History of Modern East Asia 4 credits

This course focuses on the major themes that have influenced the history of East Asia from 1644 to the present, with an emphasis on the history of modern China and Japan. Topics will include imperialism, colonialism, nationalism, revolution, the world wars, and the Cold War in Asia.

HIS-466♦: Southwest Borderlands 4 credits

This course examines the political, social, economic, and cultural history of the Southwest Borderlands region, focusing on topics related to the American West, Native Americans, frontier/colonial theory, environment, and Chicana/o history.

HIS-466HN♦: Southwest Borderlands 4 credits

This course examines the political, social, economic, and cultural history of the Southwest Borderlands region, focusing on topics related to the American West, Native Americans, frontier/colonial theory, environment, and Chicana/o history.

HIS-477♦: Historical Administration 4 credits

This course provides a broad overview of careers for administrators of museums, historical societies, archives, special collection libraries, and other cultural resource agencies. The course explores the role of an administrator as the head of an organization or as a mid-level manager. Issues that are unique to public or nonprofit agencies that collect, preserve, and share cultural resources are also explored. Prerequisite: HIS-337 or HIS-347.

HIS-510: Concepts in Understanding World History 4 credits

This course examines world history as a set of thematic concepts, highlighting the significant historiographical questions, examples, and resources for study of historical global themes such as population; economic networks; power, authority, and government; class, race, and gender; cultural expression; science, technology, and environment; and spiritual life and moral codes

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HIS-530: Applied Studies in History Graduate Education 4 credits

This course introduces students to applied studies in history. Students have opportunities to engage in applied (public) history practice with focus toward using these methods in the classroom. Emphasis is placed on the resources and opportunities provided by museums, historic places, and archives for teaching secondary and postsecondary courses.

HIS-544: Concepts in Understanding U.S. History 4 credits

This course examines U.S. history as a set of thematic concepts, highlighting the significant historiographical questions, examples, and resources for study of historical themes such as migration and immigration; religious and philosophical thought; the republic and democracy; industrialization, business, and labor; prosperity and consumerism; reform movements and social justice; and war and society in U.S. history.

HIS-555: Studies in the American West 4 credits

This course investigates the history of the American West as both a region west of the Mississippi River, and an ideology that shaped cultures, economics, and politics, from frontier to modern America. Using historiography and applied research, students examine the diverse cultures and dynamics that made the American West a unique place in American history.

HIS-565: Historical Perspectives of Race, Class, Gender, & Ethnicity 4 credits

This course explores historical perspectives of race, class, gender, and ethnicity as lenses of stratification, identity, and experience that shape the historical record. Through historiography and applied research, students examine the contextual perspectives of race, class, gender, and ethnicity that shape our understanding of the past.

HIS-570: Graduate Research Seminar in History 4 credits

This course prepares students for advanced research in history with the intent on publication. Students will engage the resources, methods, and problems of graduate-level research, investigate the literature and historiography of topics in their area of interest, and develop a plan for sustained research, publication, and professional participation in their field of study.

Health Education (HLT)

HLT-100XV: Health Care Roles and Integration of Patient Care 4 credits

This course is an introduction to the health care system and the structure, roles, and responsibilities of medical and allied health care professionals. Focus is placed on the teamwork necessary to effectively provide the highest quality patient care.

HLT-205♦: Health Care Systems and Transcultural Health Care 4 credits

This course introduces the student to organizational dynamics and the complex structures of the U.S. health care system. Students consider social, historical, and political influences that have shaped the modern health system and examine the mechanisms that enable access, delivery, and financing of health services. This course also considers the ever-growing global perspective of health care as students explore the health perspectives of varied racial, ethnic, religious, and socioeconomic groups.

HLT-205XV: Health Care Systems and Transcultural Health Care 4 credits

This course introduces the student to organizational dynamics and the complex structures of the U.S. health care system. Students consider social, historical, and political influences that have shaped the modern health system and examine the mechanisms that enable access, delivery, and financing of health services. This course also considers the ever-growing global perspective of health care as students explore the health perspectives of varied racial, ethnic, religious, and socioeconomic groups.

HLT-302^♦: Spirituality and Christian Values in Health Care and Wellness 4 credits

This writing-intensive course explores the concepts of health, wellness, and spirituality from the Christian perspective and as they relate to the holistic needs of patients, providers, and health care communities. Students reflect upon the concepts of healing and the caregiver's role in meeting the spiritual needs of diverse populations while seeking to advance health and wellness within the context of a healing paradigm.

HLT-305♦: Legal and Ethical Principles in Health Care 4 credits

This course introduces students to major ethical theories, principles, and decision-making models that form the basis for resolution of ethical dilemmas in the health care field. Guidelines for legal and ethical practice are also examined from the context of regulatory requirements established by accrediting and certifying agencies.

HLT-306V♦: Advanced Patient Care 3 credits

This course offers an advanced approach to patient care, patient education, and patient management within the health care facility and the outpatient clinic. It considers more than the patients' physical needs and addresses the patient as a part of the treatment or diagnostic plan. Upon completion of the course, the student should be able to demonstrate communication skills with different patient populations, such as various cultures, religions, ages, and levels of ability, to participate and discuss the approaches the health care professional should use to best interact with each of these groups.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HLT-307V: Professional Dynamics and Allied Health Professions 3 credits

This course identifies allied health professionals and their involvement with all aspects of health care delivery and the collaborative health care team. This course also considers the role and scope of allied health as well as the interdisciplinary approach to care intended to meet the needs of a complex and changing health care system.

HLT-308V♦: Risk Management and Health Care Regulations 3 credits

This course introduces students to local, state, and federal statutes that regulate the administration of safe health care. Students explore the legal responsibilities of the health care facility in providing workplace safety and protection from injury for patients, families, and staff. The course examines the roles and responsibilities of the risk management department within an organization. At the end of this course, students should be able to explain the ethical and legal responsibilities of health care professionals related to risk management assessment and policies.

HLT-310V^Δ♦: Spirituality in Health Care 3 credits

This writing-intensive course explores the concept of spirituality as it relates to the person who is involved in the health care system. Since illness and stress can amplify spiritual concerns and needs, health care professionals are in a unique position to assist the patient/client in meeting those needs. This course explores the relationship between health care professionals and those they serve. Topics include performing spiritual assessment, identifying those experiencing spiritual well-being as well as those experiencing a threat to spiritual well-being, and planning and evaluating care related to spiritual wellness. A spiritual care framework is used to apply these concepts to a variety of populations in diverse clinical settings.

HLT-312V♦: Ethics for Health Care Professionals 3 credits

This course introduces students to major ethical theory, principles, and models for the recognition, analysis, and resolution of ethical dilemmas in health care practice. Students learn how to approach ethical dilemmas using theoretical frameworks and decision-making processes. Through the use of case studies, students are introduced to health topics such as patients' rights, dilemmas of life and death, allocation of health care resources, and special dilemmas of health care professionals. This course also includes a review of classic cases in health care ethics and how they have shaped health policy. An overview of patient education and ethics and a discussion on the professional codes of ethics and standards are also part of this course.

HLT-313V: Safety, Quality, and Interdisciplinary Approaches to Care 3 credits

This course examines the relationship between health care quality and organizational performance from an interdisciplinary approach to care. The student is introduced to the rationale for performance management and the role of the health care organization in ensuring compliance with the standards of accreditation. The methods for assuring quality in process and outcome through management are addressed along with trends in the provision and reimbursement of health care services. Students are introduced to changing trends in reimbursement of health care services as related to risk management.

HLT-314V♦: Health Care Systems 3 credits

This course provides an understanding of the factors shaping the present and future health care delivery system. Students learn about the aging population in the United States and ways in which the health care system is planning and forecasting for the upcoming needs of aging consumers. Additionally, shifting costs, health care environments, and technological advancements are examined for trends and potential areas of opportunity. Innovative organizational models are explored and analyzed as they continue to develop and shape the future of health care delivery.

HLT-317V♦: Communication and Application of Research in Practice 3 credits

This writing intensive course introduces students to the purpose of research as applied in health care. Students examine the role of various research methods, including evidence-based practice, in communicating with patients and providers to improve health care. Students identify and develop the skills necessary to communicate effectively in the areas of interpersonal communication, group dynamics, diversity, motivation, team building, and conflict resolution.

HLT-324V♦: Transcultural Health Care 3 credits

This course explores meanings and expressions of health, illness, caring, and healing transculturally. Focus is on understanding and developing professional competence in caring for individuals, families, groups, and communities with diverse cultural backgrounds. Culture is examined as a pervasive, determining "blueprint" for thought and action throughout the human health experience. Patterns of human interaction that foster health and quality of life are analyzed, and health destroying patterns of interaction (e.g., stereotyping, discrimination, and marginalization) are examined and submitted to moral and ethical reflection.

HLT-335V♦: Polysomnography/Sleep Disorders 3 credits

This course provides an overview of the history of sleep medicine, normal sleep physiology, effects of the sleep-wake stage, sleep disorders and abnormal sleep physiology, an introduction to polysomnography (including patient interaction, sensor and lead placements, and instrumentation), application of respiratory care treatment modalities, patient testing and sleep staging, arrhythmia recognition and other physiologic events, and data acquisition.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HLT-340V♦: Quality Improvement in Respiratory Health Care 3 credits

This course provides an introduction and evaluation of current approaches to assessing risk and improving health care quality through the practice of continuous quality improvement. It focuses on conceptual understanding and experiential learning.

HLT-362V♦: Applied Statistics for Health Care Professionals 3 credits

This is an introductory course on concepts of statistics, emphasizing applications to health care professions. The course is designed to prepare students to understand concepts of statistics and the appropriateness of statistical methods used in published research papers and a variety of settings. Areas of emphasis include an introduction to the statistical analysis concepts of variable/reliability factors; P values; experimental design; descriptive statistics, including mean, median, and mode; sampling methods; and power analysis.

HLT-364♦: Research and Communication Techniques in Health Care and Science 4 credits

This writing intensive course discusses the principles and processes of research and common communication techniques utilized in health care and science. This course allows students to begin the research and preliminary background process necessary to complete a research-based capstone project. Students conduct a literature review, investigate appropriate research design, explore data collection techniques, apply statistical analysis, and practice professional writing skills. Prerequisite: BIO-365 or MAT-274.

HLT-381♦: Contemporary Public Health Issues 1 credits

This course provides students an opportunity to explore and analyze current public health issues affecting the nurse leader. Public health nurse leaders are at the forefront of local and global health care challenges and are dedicated to promoting and protecting the health of populations. Students explore the evolving roles of public health nurse leaders, including advocacy, health education and promotion, and collaboration with agencies and community members, in the context of current public health issues. Students gain an understanding of the competencies that prepare nurses to take leadership roles in the development of community- or population-focused solutions to impact health and illness patterns.

HLT-410V♦: Respiratory Care of the Critically Ill 3 credits

This course is focused on the advanced medical and respiratory care of the critically ill adult patient. Emphasis is placed on cardiopulmonary assessment and treatment of trauma, postsurgical, cardiac, and renal patients.

HLT-411♦: Global Health Issues 4 credits

This course introduces global health and health-related challenges of developing and resource-limited nations and explores the social, behavioral, economic, biomedical and environmental determinants of health. This course will examine the global epidemiology of major diseases and threats to the populations of the world, and the current organizational structures that have been established to respond. Topics include communicable diseases, non-communicable diseases, unintentional injury and violence, health promotion, reproductive health, maternal and child health, and disaster preparedness. Students will gain an understanding of the diverse determinants associated with these diseases and issues, such as poverty, education, gender imbalance, culture, and poor environmental conditions. Global health involves many disciplines within and beyond the health sciences and promotes inter-disciplinary collaboration. This course will use a wide variety of perspectives from disciplines such as epidemiology, biology, environment, human rights, nursing, psychology, public policy, technology and economics. Students will acquire an understanding of the inter-relationships between socio-cultural-economic development and health, and the impact of policy and health care delivery systems.

HLT-418V♦: Trends and Issues in Health Care 3 credits

The course explores the impact of numerous professional and societal forces on health care policy and practice. Content includes an analysis of current studies; health care policy and position statements; political, environmental, and cultural issues; and changing health care roles. The study of these issues examines the impact on health care delivery systems in society.

HLT-485♦: Methods of Teaching Health and Measuring in Exercise Science 4 credits

This course is a study of the methods and procedures of teaching health. Resources, aids, and agencies are studied in an attempt to determine how they may best assist the teacher. Practice teaching is included. Tests and measurements in health, physical education, and exercise science are presented. Emphasis is placed on producing valid and reliable tests, data analysis techniques for test evaluation, test construction assessment, and interpretation of test results. Prerequisites: BIO-155 and BIO-155L.

HLT-490V^{ΔΩ}♦: Professional Capstone Project 3 credits

This writing-intensive course facilitates a professional capstone project that is the culmination of the learning experience of students in the Bachelor of Science in Health Care Sciences program. In this course, students identify a current issue in health care and provide a written proposal to address that issue. Additionally, students use evidence-based research and apply theory to practice. Students create an evidence-based project plan and prepare to propose a full implementation plan to current or future employers.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HLT-494^A: Professional Capstone Project 4 credits

This writing-intensive course facilitates a professional capstone project that is the culmination of the learning experiences of students in the health care administration program. In this course, students submit the final professional portfolio for review by the college. In addition, students prepare a written proposal for their evidence-based capstone project focusing on the resolution of issues or problems significant to health care administration. Upon completion, students present capstone projects to a professional at a health care organization. Prerequisite: HCA-470.

HLT-515: Social, Behavioral, and Cultural Factors in Public Health 4 credits

This course is designed to provide an overview of the history of public health, system infrastructure, and its key role in health care. Students explore social, behavioral, and cultural factors that impact health populations based on demographic information such as gender, age, race, ethnicity, socioeconomic status, behavioral risks, and community. Focus is placed on research, theories, and models not exclusively designed for, but applied to, public health issues that help to minimize health disparities through community engagement, education, and empowerment.

HLT-520: Legal and Ethical Principles in Health Care 4 credits

This course focuses on the recognition, analysis, and resolution of ethical dilemmas in health occupations. Students examine legal liabilities involved in health care administration, including workplace safety and a health care facility's obligation to provide protection from injury for patients, their families, and staff.

HLT-540: Health Care Research Methods, Analysis and Utilization 4 credits

This course focuses on the critical analysis of health care research and its application to the administration and delivery of health care services. Emphasis is placed on strategies to access current and relevant data, synthesize the information, and translate new knowledge into practice. Students are introduced to concepts of measurement, reliability, and validity, as well as ethical issues in the design and conduct of research through an evaluative process of health care initiatives and projects.

HLT-555: Environmental Health 4 credits

This course is designed to examine environmental dynamics that impact community health and safety. Emphasis is placed on determining relationships between chemical, biological, and physical factors and environmental threats that produce inferior health outcomes. Topics include historical and current approaches for assessing, preventing, and controlling environmental hazards, human health and safety, impact of environmental and occupational agents, environmental justice and equity, and the influence of biological information on public health laws, policies, and regulations.

HLT-600: Public Health Policy 4 credits

This course utilizes health care policy as a framework to analyze how health is defined and health care is designed and delivered in the United States and around the world. Emphasis is placed on policies and public health, social justice and human rights principles, public law and regulations quality, global issues; and views of public health, access, disparities, and finance. The various roles of the master's prepared public health professional in the health care system are explored.

HLT-605: Public Health Administration 4 credits

This course provides an overview of public health system components and competing factors that have historically impeded the delivery of public health services. Students employ systems thinking processes to determine the most effective approach to strategic implementation of programs. Topics include utilization of collaborative partnerships, global trends analysis, evidence-based decisions regarding improved health outcomes for individuals and communities, root cause analysis, public health financing, systems theory, and application to organizational problem solving. This course prepares learners to apply knowledge in an effort to address future health care challenges as well as goals set forth within the Healthy People 2010 initiative.

HLT-610: Networking and Professional Readiness 2 credits

This course is designed to provide students with the foundational knowledge, skills, resources, and guidance to prepare for professional health care standards related to their future discipline within the industry. Emphasis is placed on critical thinking, awareness and identification of resources, communication strategies, and goal setting. Students apply learned face-to-face and electronic networking techniques and tactics to ensure professional readiness along with gaining knowledge of professional standards. Students prepare a professional portfolio and resume, and learn practical interviewing techniques to prepare for entry into/advancement within their chosen discipline-specific health care careers.

HLT-665^Ω: Public Health Practicum 4 credits

The practicum course is designed to provide students an opportunity to transition from theory to practice. The student reinforces and integrates concepts, principles, and skills gained during coursework that are essential to professional competency. Students are required to complete a minimum of 150 hours of on-site work under close supervision of a faculty member and an on-site preceptor approved by the college or university. Practicum/field experience hours: 150. Prerequisites: HLT-605 and a release by the college's Office of Field Experience.

Honors (HON)

^A Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HON-106: Freshman Symposium on Ethics: Culture, Perception, and Action 0 credits

This honors symposium takes place during the freshman year, builds upon the discussion of ethics from other first-year courses in the honors program, and looks at divergent texts by great thinkers and philosophers. This symposium investigates great questions that pertain to ethics and culture. Prerequisite: Acceptance into the honors program.

HON-106B: Freshmen Symposium & Seminar – 0 credits ENGINEERING

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106C: Freshmen Symposium & Seminar – 0 credits CS/IT

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106D: Freshmen Symposium & Seminar - 0 credits CONHCP

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106E: Freshmen Symposium & Seminar – 0 credits Education

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106F: Freshmen Symposium & Seminar – 0 credits Business

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106G: Freshmen Symposium & Seminar – 0 credits COT

This symposium course takes place during freshman year and gives students the opportunity to gain more understanding of the process of applying to graduate and medical programs. Throughout this course, students conduct extensive review of the graduate and medical school application process for their respective careers, including understanding which specified exam is relevant for their future program and methodology to help them appropriately prepare. Additionally, students learn how to compile application artifacts such as a personal statement, resume, and letters of recommendation as well as prepare for the graduate and medical school interview process. Prerequisite: Acceptance into the honors program.

HON-106H: Freshmen Symposium & Seminar – 0 credits Biology and Environmental Studies

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106I: Freshmen Symposium & Seminar – 0 credits Fine Arts & Digital Arts

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106J: Freshmen Symposium & Seminar – 0 credits Justice Studies, Government & Humanities

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-106K: Freshmen Symposium & Seminar – 0 credits Psychology, Sociology & Behavioral Health

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HON-106L: Freshmen Symposium & Seminar – 0 credits
Forensics

This honors symposium takes place during freshmen year and builds upon the discussion of ethics, service, leadership, multicultural awareness and innovative, accelerated thinking that is discussed in other first-year courses in the honors program. Students investigate real world problems, and brainstorm creative solutions to make an impact on the local and global community. Prerequisite: Acceptance into the honors program.

HON-110: Honors Symposium 0 credits

The honors symposium takes place during the first year and builds upon the topics of ethics, service, leadership, research, cultural awareness, and innovative thinking that are discussed in other first-year courses in the honors program. Students explore their respective industry, investigate and discuss local and global issues within that industry, and brainstorm and propose solutions to real-world problems experienced within the industry. This course further integrates professional development and guidance into preparing students for a future career within their respective industry. Prerequisite: Acceptance into Honors College.

HON-206: Sophomore Symposium on Service: 0 credits
Human Connections

This honors symposium takes place during the sophomore year, builds upon discussion regarding service from prior honors courses and examines the idea of service through religious and historical texts. This symposium examines the Great Questions as they relate to the impact of service on the human condition. Prerequisite: Acceptance into the honors program.

HON-206B: Project Management Fellowship 0 credits

This symposium course takes place during sophomore year and incorporates hands-on, mentored training experiences in various fields of study. Students contribute directly to current projects, business proposals, and project management experiences. This symposium also incorporates basic project management skills. Prerequisite: Acceptance into the honors program.

HON-206C: Research & Design Program 0 credits

This symposium course takes place during sophomore year and includes hands-on, mentored training experiences in each science, engineering, and technology. Students are expected to contribute directly to current research and design projects being led by faculty while learning techniques and various methodologies. Prerequisite: Acceptance into the honors program.

HON-206D: Global Studies and Service 0 credits

This symposium course takes place during sophomore year and builds upon local or global service among diverse populations, study abroad, and mission trip experience. This symposium investigates multicultural awareness, and includes a reflective approach on integrated experiential learning, personal development, disciplinary knowledge, and spiritual growth through active, global involvement. Prerequisite: Acceptance into the honors program.

HON-206E: Internship 0 credits

This symposium course takes place during sophomore year and builds upon internship experience. This symposium explores professional development, and includes a reflective approach on integrated experiential learning, personal development, and disciplinary knowledge through active involvement. Prerequisite: Acceptance into the honors program.

HON-206F: Career Planning and Professional Development 0 credits

This symposium course takes place during sophomore year and builds upon themes of career and professional development. This symposium explores brand building, professional and leadership development, effective communication, and developing a professional portfolio for the workplace. Prerequisite: Acceptance into the honors program.

HON-206G: Graduate and Medical School Preparation 0 credits

This symposium course takes place during sophomore and gives students the opportunity to gain more understanding of the process of applying to graduate and medical programs. Throughout this course, students conduct extensive review of the graduate and medical school application process for their respective careers, including understanding which specified exam is relevant for their future program and methodology to help them appropriately prepare. Additionally, students learn how to compile application artifacts such as a personal statement, resume, and letters of recommendation as well as prepare for the graduate and medical school interview process. Prerequisite: Acceptance into the honors program.

HON-306: Junior Symposium on Leadership: 0 credits
The Last Shall Be First

This honors symposium takes place during the junior year, examines the qualities of leadership through readings and presentations and investigates the Great Questions as they relate to the concept of leadership. Prerequisite: Acceptance into the honors program.

HON-306B: Project Management Fellowship 0 credits

This symposium course takes place during junior year and incorporates hands-on, mentored training experiences in various fields of study. Students contribute directly to current projects, business proposals, and project management experiences. This symposium also incorporates basic project management skills. Prerequisite: Acceptance into the honors program.

HON-306C: Research & Design Program 0 credits

This symposium course takes place during junior year and includes hands-on, mentored training experiences in each science, engineering, and technology. Students are expected to contribute directly to current research and design projects being led by faculty while learning techniques and various methodologies. Prerequisite: Acceptance into the honors program.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HON-306D: Global Studies and Service 0 credits

This symposium course takes place during junior year and builds upon local or global service among diverse populations, study abroad, and mission trip experience. This symposium investigates multicultural awareness, and includes a reflective approach on integrated experiential learning, personal development, disciplinary knowledge, and spiritual growth through active, global involvement. Prerequisite: Acceptance into the honors program.

HON-306E: Internship 0 credits

This symposium course takes place during junior year and builds upon internship experience. This symposium explores professional development, and includes a reflective approach on integrated experiential learning, personal development, and disciplinary knowledge through active involvement. Prerequisite: Acceptance into the honors program.

HON-306F: Career Planning and Professional Development 0 credits

This symposium course takes place during junior year and builds upon themes of career and professional development. This symposium explores brand building, professional and leadership development, effective communication, and developing a professional portfolio for the workplace. Prerequisite: Acceptance into the honors program.

HON-306G: Graduate and Medical School Preparation 0 credits

This symposium course takes place during junior year and gives students the opportunity to gain more understanding of the process of applying to graduate and medical programs. Throughout this course, students conduct extensive review of the graduate and medical school application process for their respective careers, including understanding which specified exam is relevant for their future program and methodology to help them appropriately prepare. Additionally, students learn how to compile application artifacts such as a personal statement, resume, and letters of recommendation as well as prepare for the graduate and medical school interview process. Prerequisite: Acceptance into the honors program.

HON-406: Senior Symposium on Research: Ways of Thinking and Knowing 0 credits

This honors symposium takes place during the senior year, builds upon the discussion of critical thinking and research from previous honors courses and examines the topics of research and knowledge. This symposium analyzes the Great Questions that examine ways of perceiving. Prerequisite: Acceptance into the honors program.

HON-406B: Project Management Fellowship 0 credits

This symposium course takes place during senior year and incorporates hands-on, mentored training experiences in various fields of study. Students contribute directly to current projects, business proposals, and project management experiences. This symposium also incorporates basic project management skills. Prerequisite: Acceptance into the honors program.

HON-406C: Research & Design Program 0 credits

This symposium course takes place during senior year and includes hands-on, mentored training experiences in each science, engineering, and technology. Students are expected to contribute directly to current research and design projects being led by faculty while learning techniques and various methodologies. Prerequisite: Acceptance into the honors program.

HON-406D: Global Studies and Service 0 credits

This symposium course takes place during senior year and builds upon local or global service among diverse populations, study abroad, and mission trip experience. This symposium investigates multicultural awareness, and includes a reflective approach on integrated experiential learning, personal development, disciplinary knowledge, and spiritual growth through active, global involvement. Prerequisite: Acceptance into the honors program.

HON-406E: Internship 0 credits

This symposium course takes place during senior year and builds upon internship experience. This symposium explores professional development, and includes a reflective approach on integrated experiential learning, personal development, and disciplinary knowledge through active involvement. Prerequisite: Acceptance into the honors program.

HON-406F: Career Planning and Professional Development 0 credits

This symposium course takes place during senior year and builds upon themes of career and professional development. This symposium explores brand building, professional and leadership development, effective communication, and developing a professional portfolio for the workplace. Prerequisite: Acceptance into the honors program.

HON-406G: Graduate and Medical School Preparation 0 credits

This symposium course takes place during senior year and gives students the opportunity to gain more understanding of the process of applying to graduate and medical programs. Throughout this course, students conduct extensive review of the graduate and medical school application process for their respective careers, including understanding which specified exam is relevant for their future program and methodology to help them appropriately prepare. Additionally, students learn how to compile application artifacts such as a personal statement, resume, and letters of recommendation as well as prepare for the graduate and medical school interview process. Prerequisite: Acceptance into the honors program.

Hospitality (HOS)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HOS-200: Introduction to Hospitality 4 credits

This course introduces the hospitality industry and essential customer service and communication skills that ensure efficient delivery of quality services. Students are taught the skills necessary to effectively communicate, meet the service quality expectations of a diverse clientele, and appropriately represent their organizations.

HOS-200XV: Introduction to Hospitality 4 credits

This course introduces the hospitality industry and essential customer service and communication skills that ensure efficient delivery of quality services. Students are taught the skills necessary to effectively communicate, meet the service quality expectations of a diverse clientele, and appropriately represent their organizations.

HOS-440: Hotel and Lodging Management and Operations I 4 credits

This course examines the management of hotel and lodging operations with an emphasis on customer service and improving profitability. Students are introduced to the basics of facilities management in core lodging segments, operational procedures, guest relations, and the relationships between operational departments. Analysis of operational efficiencies to improve organizational outcomes is also addressed. Prerequisite: HOS-200.

HOS-450: Hotel and Lodging Management and Operations II 4 credits

This course continues to examine the management of hotel and lodging operations with an emphasis on identifying industry trends to determine potential innovations, strategies, and quality management techniques that improve organizational outcomes and profitability. Innovation in the hotel and lodging industry is also addressed. Prerequisite: HOS-440.

HOS-460: Food and Beverage Service Management and Operations 4 credits

This course emphasizes the daily operations and management of food and beverage service within the hospitality industry. Students learn principles related to the hiring and training of service workers, food handling and sanitation, layout and equipment planning, and safety regulations and standards. Essential elements of the course include purchasing and cost control, menu management, and innovation in the food and beverage industry.

HOS-465: Revenue Generation for Hospitality 4 credits

This course focuses on generating innovative revenue models for the hospitality industry. Students participate in competitive analysis to identify market opportunities and develop innovative growth strategies that support organizational goals. Students learn analytical modeling practices, forecast, and determine pricing and implementation strategies. The use of industry benchmarking tools and metrics relevant to revenue management are also addressed.

HOS-470: Hospitality Services Marketing 4 credits

This course introduces the unique features of services marketing with a focus on the importance of building and maintaining customer relationships to deliver quality service through the development of marketing strategies. Students will evaluate brand management and determine strategic approaches suitable for the hospitality industry with an emphasis on aligning strategies to organizational goals. There is a particular emphasis on the applications of social media and integrated marketing communications. Prerequisite: MKT-245 or MKT-315.

Health Care Quality and Safety (HQS)

HQS-610: Foundations of Quality Improvement and Patient Safety 4 credits

This course provides foundational knowledge that will equip students to make decisions regarding quality improvement and patient safety. Students explore the quality improvement process and examine the most commonly used models and tools for improving health care quality. Students will also evaluate methods to track, assess, analyze, and review data relating to patient safety issues. Prerequisites: NUR-590 and NUR-630, or HQS-605.

HQS-620: Project Management in Health Care 4 credits

This course examines the models and approaches of project management in health care settings. Students demonstrate understanding of the project management process and its application to health care quality and safety initiatives. Students gain skills to identify various stakeholders and roles, set goals and expectations, plan stakeholder engagement, and identify ways to mitigate obstacles in health care project management. Prerequisite: HQS-610.

HQS-630: Implementation and Change Management 4 credits

This course examines components of implementing health care quality and safety initiatives. Students examine the elements of change management, identify criteria for success in change areas, and plan phases and goals for implementation. Students also consider change sustainability and dissemination of successful implementations. Prerequisite: HQS-620.

HQS-640: Quality Improvement and Patient Safety Practicum 4 credits

This practicum course is the final synthesis of theoretical foundations of health care quality and patient safety and their application across health care settings. Emphasis is placed on issue identification, assessment and prioritization, project management, implementation, and evaluation. Students also explore the application of communication methods, emotional intelligence, high reliability principles, and conflict resolution. Practicum/field experience hours: 150. Prerequisite: HQS-630.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Human Resources (HRM)

HRM-635: Acquiring, Developing, and Leveraging Human Capital **4 credits**

The effective strategic management of human capital is the differentiator of every successful organization. This course examines talent management, workforce diversity, succession planning, employee development and motivation, and performance matrix. This course addresses human resource competencies identified by the Society of HR Management (SHRM). Using the strong strategic HR acumen provided by this course, students will be well-prepared for positions as senior human resources specialists or as general managers. Also LDR-635.

HRM-640: Designing HR for Competitive Advantage **4 credits**

Frequent mergers and acquisitions, downsizing, and globalization have increased the complexities of managing human resources. Linking human resource management to the bottom line and decision making is critical for both strategy and business success. This course addresses human resource competencies identified by the Society of HR Management (SHRM). Using the strong strategic HR acumen provided by this course, students will be well-prepared for positions as senior human resources specialists or as general managers.

History and Theological Studies (HTH)

HTH-201♦: Christian Theology I **4 credits**

This course is a study of theological methodology and the doctrines of revelation, God, humanity, sin, and the person of Jesus Christ with emphasis on the biblical bases for each doctrine.

HTH-202♦: Christian Theology II **4 credits**

This course is a study of theological methodology and the doctrines of the works of Jesus Christ, salvation, the Holy Spirit, the Church, and last times with emphasis on the biblical bases for each doctrine.

HTH-330^♦: Christian Ethics **4 credits**

This writing-intensive course systematically studies the biblical, theological, and philosophical foundations of Christian ethics as compared with other ethical systems that shape public discourse on ethical issues. Emphasis is placed on personal morality and an exploration of contemporary issues relevant to the Church's public witness.

HTH-330HN^A♦: Christian Ethics **4 credits**

This writing intensive course systematically studies the biblical, theological, and philosophical foundations of Christian ethics as compared with other ethical systems that shape public discourse on ethical issues. Emphasis is placed on personal morality and an exploration of contemporary issues relevant to the Church's public witness.

HTH-350♦: Survey of Historical Theology **4 credits**

This course surveys the major developments within the history of Christianity that have shaped Christian doctrine. Emphasis is placed on key events, personalities, theological developments, and movements. Prerequisites: HTH-201 and HTH-202.

HTH-350HN^♦: Survey of Historical Theology **4 credits**

This course surveys the major developments within the history of Christianity that have shaped Christian doctrine. Emphasis is placed on key events, personalities, theological developments, and movements. Prerequisites: HTH-201 and HTH-202.

HTH-359♦: Systematic Theology **4 credits**

This course is a systematic study of the major doctrines of the Christian religion, including revelation and the Bible, the Trinity, the doctrine of man, the atonement, salvation and Christian growth, the church and its ordinances, and eschatology, examining the biblical foundation for these teachings and their development over time. The course also discusses the relationship between Christianity and other world religions and the relationship between Christian theology and philosophy. Prerequisites: BIB-351 and BIB-354.

HTH-379♦: History of Christianity **4 credits**

This course addresses the significant movements and turning points within the church from New Testament times through the Reformation and into modern day America and the world. Special emphasis is given to the ancient Christian church, the church fathers, heresies, monasticism, the Papacy, the practices and problems of the church, the Protestant Reformation, the Catholic Counter-Reformation, and the mission movement—both Catholic and Protestant. Attention is also given to the relationship between Christianity and culture, as Christianity in its geographical expansion through the course of history has interfaced with various cultures ranging from the Jewish world, to the Greco-Roman world, to the barbarian cultures of northern Europe, to the varying cultures encountered as Christianity spread to the New World and then to African and Asian cultures. Prerequisites: BIB-106 and BIB-107.

^A Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HTH-379HN♦: History of Christianity 4 credits

This course addresses the significant movements and turning points within the church from New Testament times through the Reformation and into modern day America and the world. Special emphasis is given to the ancient Christian church, the church fathers, heresies, monasticism, the Papacy, the practices and problems of the church, the Protestant Reformation, the Catholic Counter-Reformation, and the mission movement—both Catholic and Protestant. Attention is also given to the relationship between Christianity and culture, as Christianity in its geographical expansion through the course of history has interfaced with various cultures ranging from the Jewish world, to the Greco-Roman world, to the barbarian cultures of northern Europe, to the varying cultures encountered as Christianity spread to the New World and then to African and Asian cultures. Prerequisites: BIB-106 and BIB-107.

HTH-469♦: Contemporary Theology 4 credits

This course begins with a brief background of the development of Protestant liberal theology starting with Schleiermacher. Then attention is given to the 20th century schools of theological thought: neo-Orthodox, existential, process, theology of hope, Latin American liberation theology, African-American liberation theology, feminist liberation theology, new Catholic theology, theological expressions of Christianity in Africa and Asia, narrative/post modern approaches to theology, and variations and popular expressions in Protestant theology particularly in America. Even as Christianity must be clothed in various cultures, so the various contemporary theologies attempt to relate theological truth in ways that are relevant to particular cultures or sub-cultures. In the process of studying each contemporary theology, attention will also be given to how that theology is expressed in cultural clothing. Prerequisite: HTH-359.

HTH-469HN♦: Contemporary Theology 4 credits

This course begins with a brief background of the development of Protestant liberal theology starting with Schleiermacher. Then attention is given to the 20th century schools of theological thought: neo-Orthodox, existential, process, theology of hope, Latin American liberation theology, African-American liberation theology, feminist liberation theology, new Catholic theology, theological expressions of Christianity in Africa and Asia, narrative/post modern approaches to theology, and variations and popular expressions in Protestant theology particularly in America. Even as Christianity must be clothed in various cultures, so the various contemporary theologies attempt to relate theological truth in ways that are relevant to particular cultures or sub-cultures. In the process of studying each contemporary theology, attention will also be given to how that theology is expressed in cultural clothing. Prerequisite: HTH-359.

HTH-475: Applied Theology 4 credits

This course focuses on the practical ministry application of theological principles. Special attention is given to theological reflection in respect to methodology, apologetics, ethics, and the mission of the church.

HTH-505: Systematic Theology I 4 credits

This course is a systematic study of the biblical bases, historical development, and theological formulation of the Christian doctrines of revelation, God, creation, humanity, sin, and the Person of Christ, as well as their implications for individual and corporate Christian life. Attention is also given to theological prolegomena.

HTH-510: Christian History I 4 credits

This course is a historical exploration of the Christian church's theological and institutional development from the postapostolic era to the early medieval era (100-1300) with emphasis on significant doctrinal statements, major thinkers and leaders, important political figures, and movements.

HTH-511: Christian History II 4 credits

This course is a historical exploration of the Christian church's theological and institutional development from the late medieval era to the late modern period (1300-2000) with emphasis on significant doctrinal statements, major thinkers and leaders, important political figures, and movements.

HTH-515: Christian Doctrines 4 credits

This course surveys cardinal doctrines of the Christian faith, including revelation, God, humanity, Christ, and salvation. Emphasis is placed on the development of sound theology grounded in biblical understandings and practical wisdom for ministry. Some attention is given to the historical development of doctrine.

HTH-550: Systematic Theology II 4 credits

This course is a systematic study of the biblical bases, historical development, and theological formulation of the Christian doctrines of the works of Christ, salvation, the Holy Spirit, the church, and the last things as well as their implications for individual and corporate Christian life. Prerequisite: HTH-505.

HTH-610: Christian Ethics 4 credits

This course systematically studies the biblical, theological, and philosophical foundations of Christian ethics as compared with other ethical systems that shape public discourse on ethical issues. Emphasis is placed on personal morality and contemporary issues that are relevant to the church's public witness and societal leadership.

HTH-611^Ω: Pastoral Theology 4 credits

This is a practically oriented, theological examination of the roles and responsibilities of ministers as they lead, equip, shepherd, and intercede for God's people. This course is offered in residency for non-traditional students. Prerequisite: HTH-505.

HTH-620: Practical Theology 4 credits

This course analyzes the practical dimensions of systematic theology and assists students in making critical connections between biblical teaching and ministry within specific contexts. Emphasis is placed on faithful biblically rooted ministry, including a focus on prayer, evangelism, discipleship, and church leadership. This course requires supervised ministry hours. Practicum/field experience hours: 45.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

HTH-640: Doctrine of the Church 4 credits

This course examines the biblical basis, history, and proper formulation of ecclesiology for the purpose of leading the church to display more fully God's glory through worship, ministry, and mission. Emphasis is placed on the application of biblical and theological principles within students' denominational heritage and ecclesial context. This course requires supervised ministry hours. Practicum/field experience hours: 45. Prerequisite: HTH-505.

HTH-655: Christian Worldview and Contextualization 4 credits

This course is a study of the Christian worldview and other dominant worldviews—religious and secular—and their role in the contextualization of the Christian message and mission. Prerequisites: HTH-505 and HTH-550.

Intercultural Ministries (INT)

INT-244♦: World Religions 4 credits

This course is a study of the major contemporary religions of the world including Abrahamic religions, Eastern religions, and other religions. The course covers religious texts, historical background, and current beliefs and practices. Emphasis is given to the ideological foundations of a Christian worldview, a comparison of worldviews, and the application of worldviews within a global society.

INT-244XV: World Religions 4 credits

This course is a study of the major contemporary religions of the world including Abrahamic religions, Eastern religions, and other religions. The course covers religious texts, historical background, and current beliefs and practices. Emphasis is given to the ideological foundations of a Christian worldview, a comparison of worldviews, and the application of worldviews within a global society.

INT-310♦: Christianity in a Global Context 4 credits

This writing intensive course is a survey of global Christianity that examines the mission and purposes of God and His people among the nations. Emphasis is placed on the analysis of recent mission movements, best practices for mission strategies, and contemporary trends in global Christianity. Prerequisite: HTH-201.

INT-310HN^Δ♦: Christianity in a Global Context 4 credits

This writing intensive course is a survey of global Christianity that examines the mission and purposes of God and His people among the nations. Emphasis is placed on the analysis of recent mission movements, best practices for mission strategies, and contemporary trends in global Christianity. Prerequisites: HTH-201 and HTH-202.

INT-320♦: Evangelism and Discipleship 4 credits

This course prepares students to listen carefully to a person of another religion or worldview in order to effectively tailor a gospel presentation that accurately presents the claims of Christ and respectfully considers the hearer. For individuals who are responsive to the gospel, it provides sound practices for continuing and deepening the new believer's relationship with Jesus.

INT-450♦: Anthropology for Cross-Cultural Ministry 4 credits

This course examines principles of anthropology within the context of missiology for the purpose of developing a tool kit that will enable students to analyze and engage people groups living within various cultural contexts. Attention is given to multiple dimensions of human culture as well as issues related to social justice and biblical mercy. Prerequisite: INT-244.

INT-460♦: Christianity and Culture 4 credits

This course examines principles and methods for faithfully ministering within the Late Modern context in a way that is meaningful to people from diverse backgrounds. Attention is given to the influence of Christianity on culture and vice versa during the 20th and 21st centuries as well as issues related to social justice and biblical mercy. Emphasis is placed on North American cultural engagement with apologetic concern and sensitivity to contemporary values.

INT-510: Biblical Foundations of Urban Ministry 4 credits

The course provides a biblical foundation for urban ministry and equips students with an overarching understanding of basic principles for effective urban ministry. Students develop understanding of the crucial position of the local assembly of believers, the history, and the various best practices for culture transformative urban ministry. This course requires supervised ministry hours. Practicum/field experience hours: 45.

INT-520: Cross-Cultural and Multicultural Ministry 4 credits

This course is a study of the opportunities and challenges of ministering cross-culturally and multiculturally. Students will consider domestic and international settings.

INT-525: Christian Worldview and Mission 4 credits

An introduction to the biblical, historical, and theological bases for the cross-cultural contextualization of the Christian worldview with attention to sound missiological practices. Special emphasis is placed on cross-cultural communication and ministry in light of contemporary topics and practical exigencies. This course is offered in residency for non-traditional students.

INT-535: The Christian Faith and World Religions 4 credits

This course is an investigation of major world religions and ideologies from an evangelical perspective with the goal of building bridges cross-culturally. Attention is given to historical backgrounds, religious texts and traditions, contemporary belief and practices, and careful consideration of the appropriate Christian response to non-Christian religious systems.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

INT-545: Anthropological Principles 4 credits

This course examines principles of anthropology for cross-cultural ministry including analysis of symbols, social structures, customs, thought forms, and social norms.

INT-625: Multicultural Ministry and Contextualization 4 credits

This course introduces students to the basic competencies needed for ministry in a multicultural setting. Students explore social services, community building, holistic ministry strategies, and how to contextualize the Good News of Christ without compromising its integrity. This course requires supervised ministry hours. Practicum/field experience hours: 45.

INT-630: Issues in Urban Ministry 4 credits

This course is an examination of how the church's mission expresses itself in the urban setting and the ethical implications for decisions made in urban ministry. This course requires supervised ministry hours. Practicum/field experience hours: 45.

INT-655: Contextualized Church Planting 4 credits

This course is a study of theories, models, and practices for planting and developing self-sustaining churches that are authentic to the culture within international contexts.

INT-675: Global Christianity 4 credits

This course is a historical, theological, and missiological study of global Christianity that examines the mission and purposes of God and His people among the nations. Emphasis is placed on the relationship between historical developments and current trends with a view to the implementation of prudent strategies for contemporary cross-cultural ministry.

Information Technology (ITT)

ITT-116: Platforms and Network Technologies 4 credits

This course exposes students to the fundamentals of networks and networking in IT. It then builds deeper understanding of how networks work, including the topics of LANs, WANs, service providers, packets, hubs, routers, switches, and Internet protocols. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on setting up and configuring local and enterprise networks, experimenting with various topologies, and scalability planning with routers and switches. Prerequisite: CST-111 or CST-105 or acceptance into the bootcamp program.

ITT-116N: Platforms and Network Technologies 4 credits

This course exposes students to the fundamentals of networks and networking in IT. It then builds deeper understanding of how networks work, including the topics of LANs, WANs, service providers, packets, hubs, routers, switches, and Internet protocols. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on setting up and configuring local and enterprise networks, experimenting with various topologies, and scalability planning with routers and switches. Prerequisite: CST-111 or CST-105. Prerequisite: CST-111 or CST-105 or acceptance into the bootcamp program.

ITT-121: System Administration and Maintenance 4 credits

This course introduces students to system administration and maintenance as well as platform technologies. The course surveys operating systems, applications, administrative activities and domains, computer architecture and organization, and computing infrastructures. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on developing practical skills in configuring computer systems, deploying enterprise applications, managing user permissions, and remote administration. Prerequisite: ITT-116.

ITT-201♦: Cloud-based Computing and Systems 4 credits

This course covers fundamental web technologies and systems, including web site architecture, self-descriptive text, web site design, web navigational systems, database integration, and digital media streaming. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on writing code that implements server-side methods for accessing databases, deliver content, render web pages, and connect application servers, database servers, and web servers, and security layers. Prerequisite: CST-111 or MAT-154.

ITT-210: Low Level Programming 4 credits

This course is an introduction to assembly language programming. Assembly language topics may include machine representation of data, fixed and floating point, and decimal arithmetic, address modification, bit manipulation, and subroutine linkage. Practicum/field experience hours: None. Low Level Programming. Prerequisites: MAT-154 and CYB-201.

ITT-250♦: Service Oriented Architecture 4 credits

This course teaches students to design and develop secure enterprise applications in a service oriented approach, both in theory and in practice. Students explore SOA concepts with an emphasis on cybersecurity and develop a working knowledge of web services. Design and develop web services with industry standard development tools. Prerequisite: ITT-115 or ITT-116.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ITT-250HN[♦]: Service Oriented Architecture 4 credits

This course teaches students to design and develop secure enterprise applications in a service oriented approach, both in theory and in practice. Students explore SOA concepts with an emphasis on cybersecurity and develop a working knowledge of web services. Design and develop web services with industry standard development tools. Prerequisite: ITT-115 or ITT-116.

ITT-270[♦]: Routing and Switching 4 credits

In this course students acquire the ability to install, configure, operate, and troubleshoot medium sized routed and switched networks. Students gain the knowledge and skills to make connections to remote sites via a WAN, and mitigate basic security threats. Prerequisite: ITT-115 or ITT-116.

ITT-270HN[♦]: Routing and Switching 4 credits

In this course students acquire the ability to install, configure, operate, and troubleshoot medium sized routed and switched networks. Students gain the knowledge and skills to make connections to remote sites via a WAN, and mitigate basic security threats. Prerequisite: ITT-115 or ITT-116.

ITT-305: Information Security I 2 credits

This course builds upon knowledge already acquired in the areas of system architecture and operating systems and focuses on the core issues of information security. Students learn fundamental aspects, security mechanisms, operational issues, security policies, and attack types. Prerequisite: ITT-121 or CST-210 or CST-221.

ITT-306: Information Security II 2 credits

This course is a direct continuation of ITT-305. It expands the coverage of information security topics to include security domains, forensics, information states, security services, threat analysis, and vulnerabilities. Prerequisite: ITT-305.

ITT-307[♦]: Cybersecurity Foundations 4 credits

This course builds upon knowledge already acquired in the areas of system architecture and operating systems and focuses on the core issues of information security. Students learn fundamental concepts of information security including data encryption, security awareness, legal and ethical issues, operational issues, security policies, and attack types; while expanding on the coverage to include security domains, forensics, security services, threat analysis, and vulnerabilities assessments. Prerequisite: ITT-120, or ITT-121 or CST-125 or CST-126 or CST-220 or CST-221 or acceptance into the bootcamp program.

ITT-307N: Cybersecurity Foundations 4 credits

This course builds upon knowledge already acquired in the areas of system architecture and operating systems and focuses on the core issues of information security. Students learn fundamental concepts of information security including data encryption, security awareness, legal and ethical issues, operational issues, security policies, and attack types; while expanding on the coverage to include security domains, forensics, security services, threat analysis, and vulnerabilities assessments. Prerequisite: ITT-120, or ITT-121 or CST-125 or CST-126 or CST-220 or CST-221 or acceptance into the bootcamp program.

ITT-310: Programming for Security Professionals 4 credits

Students will be introduced to a high level programming language, within a common desktop environment, in the context of IT and Cybersecurity. Students will utilize development tools, programming language syntax, control constructs, loops and decision making, user defined functions, pointers, and basic memory management. Prerequisite: Prerequisite: ITT-210.

ITT-325: IT Project Management Lecture & Lab 4 credits

This course examines information technology project management. Topics include the reasons why IT projects fail, the business cost of IT failure, managing IT teams, outsourcing, virtual teams, scope definition, project scheduling, risk mitigation, and leading successful projects. Additional topics focus on using project management to build an analytics organization. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on using professional project management software to implement a system for planning, tracking, and auditing the use of resources within the context of an IT project. Prerequisite: CST-225, ITT-250, BIT-210 or BIT-200.

ITT-325HN[†]: IT Project Management Lecture & Lab 4 credits

This course examines information technology project management. Topics include the reasons why IT projects fail, the business cost of IT failure, managing IT teams, outsourcing, virtual teams, scope definition, project scheduling, risk mitigation, and leading successful projects. Additional topics focus on using project management to build an analytics organization. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on using professional project management software to implement a system for planning, tracking, and auditing the use of resources within the context of an IT project. Prerequisite: CST-225, ITT-250, BIT-210 or BIT-200.

ITT-340[♦]: Cybersecurity and Ethical Hacking 4 credits

This course covers mathematical models for computer security. It analyzes and compares the properties of various models for hardware, software, and database security. The course examines how system designs, network protocols, and software engineering practices can result in vulnerabilities. Students learn to design, evaluate, ethically hack, and implement adequate security measures that can safeguard sensitive information. Prerequisite: ITT-307.

ITT-340N: Cybersecurity and Ethical Hacking 4 credits

This course covers mathematical models for computer security. It analyzes and compares the properties of various models for hardware, software, and database security. The course examines how system designs, network protocols, and software engineering practices can result in vulnerabilities. Students learn to design, evaluate, ethically hack, and implement adequate security measures that can safeguard sensitive information. Prerequisite: ITT-307N.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ITT-350♦: Service Oriented Architecture for Big Data 4 credits

This course is an in-depth study of service oriented architecture that support big data, from the business, architectural, and technology perspectives. Students learn to distinguish among different architectural SOA models of software development. Students gain hands-on experience to analyze, design, implement, and deploy SOA solutions for big data. Prerequisite: ITT-250

ITT-370♦: Wireless Networks 4 credits

This course covers advanced topics in networking with an emphasis on securing wireless and IP networks. Students analyze algorithms and protocols, improve existing solutions, and evaluate existing solutions using theoretical analysis and simulations. Students become familiar with modern networking architectures. Prerequisite: ITT-270.

ITT-375♦: Cyber Forensic Investigations 4 credits

This course covers the processes and goals of cyber forensics investigations. Hands-on activities include using multiple reporting systems to initiate and provide on-going support for information security investigations relating to data privacy, incident management, data loss prevention, and digital forensics. Prerequisite: ITT-307.

ITT-375N: Cyber Forensic Investigations 4 credits

This course covers the processes and goals of cyber forensics investigations. Hands-on activities include using multiple reporting systems to initiate and provide on-going support for information security investigations relating to data privacy, incident management, data loss prevention, and digital forensics. Prerequisite: ITT-307N.

ITT-380: Information Assurance 4 credits

Information Assurance is explored from the perspective of frameworks and technical compliance. Students will be exposed to the idea that proper understanding of, and implementation of frameworks and compliance has recently become a requirement for many security careers. Students will perform in-depth analysis of the needs of the system juxtaposed against the requirement to comply with a mandated framework. Practicum/field experience hours: None. Information Assurance. Prerequisite: ITT-270.

ITT-403^Ω: Information Technology Internship 4 credits

The optional internship provides students the opportunity to work as practitioners within their field and to practice principles learned in their major area of study by working in an outside organization under the supervision of a professional. The internship enables students and organizations to benefit from real-world application of classroom instruction. Prerequisite: Permission of the Director of the Internship Program.

ITT-410HN[‡]: Emerging Technologies Lecture & Lab 4 credits

This course surveys a broad range of emerging technologies and prepares students to become forward thinkers when designing, planning, and deploying IT infrastructure. Students learn to evaluate whether and how an emerging device or technology could change the design of an interface for an application, system, or network. The laboratory reinforces and expands the learning of principles introduced in the lecture. Hands-on activities focus on interacting with a variety of innovative computing devices, peripherals, and wireless technologies. Prerequisites: MAT-252, CHM-113, CHM-113L, PHY-121, PHY-121L, ITT-200, and CST-320.

ITT-415: IT Business Case Planning for Global Enterprise 4 credits

This course prepares students to plan and implement IT systems that take into account business realities, objectives, and constraints associated with domestic and international business activities. The course exposes the key computational, analytical, and decision-making tools used by businesses. Students also develop an understanding of the social, cultural drivers of successful IT investments, and their effect on business strategy and models. A special emphasis is placed on the symbiotic relationship between information technology and business and on international case studies, as manifested in information pricing, technological lock-in and network effects. Prerequisite: CST-326 or BIT-415 or CYB-220.

ITT-415HN[‡]: IT Business Case Planning for Global Enterprise 4 credits

This course prepares students to plan and implement IT systems that take into account business realities, objectives, and constraints associated with domestic and international business activities. The course exposes the key computational, analytical, and decision-making tools used by businesses. Students also develop an understanding of the social, cultural drivers of successful IT investments, and their effect on business strategy and models. A special emphasis is placed on the symbiotic relationship between information technology and business and on international case studies, as manifested in information pricing, technological lock-in and network effects. Prerequisite: CST-326 or BIT-415.

ITT-420♦: Big Data Systems 4 credits

This course focuses on data-intensive problems in the context of large sensor networks, simulations, and social networks. Scalable algorithms and data management technologies are examined in detail. Students explore data analysis and management techniques applied to big data sets in distributed environments. Specifically, the course focuses on the map-reduce paradigm, distributed file systems, NoSQL databases, and machine learning methods. Students learn to design highly scalable systems that can analyze massive amounts of data for scientific or social applications. Prerequisite: SYM-408 or CST-217.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

ITT-425[♦]: Analysis, Design, and Management of Secure Corporate Networks 4 credits

This course covers strategies and plans for security architecture. Students gain the knowledge and skills to use technologies to detect and prevent network penetration and design cybersecurity countermeasures. Prerequisite: ITT-370 or ITT-375

ITT-430[♦]: Security Driven Systems Administration 4 credits

This course covers the design, management, and maintenance of virtual enterprise and datacenter infrastructure. Students learn to use appropriate tools such as request tracking, monitoring, configuration management, virtualization, and scripting to administer and defend systems using documented, repeatable processes. Emphasis will be placed on volume management, directory services, and network-based authentication and file systems. Students develop automatic procedures for installations and file distribution. Prerequisites: MAT-154 and ITT-307.

ITT-450: Cloud Technologies, Systems, and Applications Lecture & Lab 4 credits

This course builds upon knowledge acquired in ITT-200 and provides students with first-hand experience with the latest cloud-related concepts, systems, and tools. Students learn how to construct and secure a private cloud-computing environment using open source solutions, learn how to federate it with external clouds, learn how to configure SaaS servers, and learn how to enable cloud-based business applications. Students also learn to evaluate cloud-based solutions in terms of performance, security, cost, usability, and utility. Students are expected to learn and demonstrate practical elements. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on interaction, utilization, and configuration of cloud-based systems for a variety of business applications. Prerequisite: ITT-200.

ITT-450HN[‡]: Cloud Technologies, Systems, and Applications Lecture & Lab 4 credits

This course builds upon knowledge acquired in ITT-200 and provides students with first-hand experience with the latest cloud-related concepts, systems, and tools. Students learn how to construct and secure a private cloud-computing environment using open source solutions, learn how to federate it with external clouds, learn how to configure SaaS servers, and learn how to enable cloud-based business applications. Students also learn to evaluate cloud-based solutions in terms of performance, security, cost, usability, and utility. Students are expected to learn and demonstrate practical elements. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on interaction, utilization, and configuration of cloud-based systems for a variety of business applications. Prerequisite: ITT-200.

ITT-455^{ΔΩ}: IT Project 4 credits

This course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students implement and present the applied research project. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course. Prerequisite: ITT-415 or ITT-430.

Justice Studies (JUS)

JUS-104[♦]: Introduction to Justice Studies 4 credits

This course provides an introduction to the basic components of the criminal justice system in the United States today: corrections, courts, and law enforcement.

JUS-104XV: Introduction to Justice Studies 4 credits

This course provides an introduction to the basic components of the criminal justice system in the United States today: corrections, courts, and law enforcement.

JUS-110[♦]: Crime and Criminology 4 credits

This course provides an examination of classic and contemporary theories of crime causation, including psychological and social causes of crime and theories of punishment.

JUS-202[♦]: Professional Responsibility in Justice 4 credits

This course covers the many facets of what it means to be a responsible and effective public servant. It does this by examining the ethical principles that are required of those working as public servants, so they are prepared to make moral judgments in the execution of their duties. How to be culturally sensitive, maximize the public good, and appropriately use resources is covered. How to stand for principles and have courage to do what is right as a public servant, as well as proper communication is investigated.

JUS-202HN[‡]: Professional Responsibility in Justice 4 credits

This course covers the many facets of what it means to be a responsible and effective public servant. It does this by examining the ethical principles that are required of those working as public servants, so they are prepared to make moral judgments in the execution of their duties. How to be culturally sensitive, maximize the public good, and appropriately use resources is covered. How to stand for principles and have courage to do what is right as a public servant, as well as proper communication is investigated.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

JUS-212♦: Criminal Behavior and Victimology 4 credits

This course provides an examination of the basic theories of criminology including victimology. The course exposes students to the motivators of criminal behavior to better understand crime and those who commit crime.

JUS-212HN♦: Criminal Behavior and Victimology 4 credits

This course provides an examination of the basic theories of criminology including victimology. The course exposes students to the motivators of criminal behavior to better understand crime and those who commit crime.

JUS-212XV: Criminal Behavior and Victimology 4 credits

This course provides an examination of the basic theories of criminology including victimology. The course exposes students to the motivators of criminal behavior to better understand crime and those who commit crime.

JUS-230♦: Fundamentals of Criminal Law 4 credits

This course provides an introduction to the fundamentals of criminal liability with an emphasis on the elements of a crime and governmental sanctions of individual conduct as formulated by the legislature and the court system.

JUS-250♦: Critical Issues in Criminal Justice 4 credits

This writing intensive course provides an examination of issues relating to justice policies, perspectives, techniques, roles, institutional arrangement, management and administration, use of research, and innovative patterns. Prerequisites: JUS-104 and JUS-110.

JUS-265♦: Physical Evidence I 3 credits

Students explore the fundamental applications of forensic science essentials for recovering evidence at the crime scene, methods for analysis of evidence at the scene and in the crime laboratory, maintaining a chain of custody, and quality assurance with an emphasis on comparative analysis. Prerequisite: JUS-255. Co-Requisite: JUS-265L.

JUS-265L♦: Physical Evidence I Lab 1 credits

The laboratory section of JUS-265 reinforces and expands learning of principles introduced in the lecture course. The laboratory focuses on analysis of trace evidence, odontology, impressions, tool marks, firearms, toxicology evidence and fingerprints. Prerequisite: JUS-255L. Co-requisite: JUS-265.

JUS-275♦: Physical Evidence II 3 credits

This course continues the exploration of evidentiary recovery of materials at crime scenes, methods for analysis of evidence at the scene and in the crime laboratory, maintaining a chain of custody, and quality assurance with an emphasis on analytical analysis. Prerequisite: JUS-265. Co-requisite: JUS-275L.

JUS-275L♦: Physical Evidence II Lab 1 credits

The laboratory section of JUS-275 reinforces and expands learning of principles introduced in the lecture course. The laboratory exercise focuses on analysis of questioned documents, blood spatter, arson and explosive evidence, computers and electronic evidence, reconstruction and the use of dogs in evidence searching and collection. Prerequisite: JUS-265L. Co-requisite: JUS-275.

JUS-320♦: The Police Function 4 credits

This course provides an examination of the objectives, strategies, tactics, programs, roles, perspectives, public perception, and interagency relationships of the police.

JUS-320HN♦: The Police Function 4 credits

This course provides an examination of the objectives, strategies, tactics, programs, roles, perspectives, public perception, and interagency relationships of the police.

JUS-325♦: The Adjudication Function 4 credits

This is a writing intensive course emphasizing the objectives, strategies, programs, roles, perspectives, and interagency relationships of the courts.

JUS-325HN♦: The Adjudication Function 4 credits

This is a writing intensive course emphasizing the objectives, strategies, programs, roles, perspectives, and interagency relationships of the courts.

JUS-330♦: The Correctional Function 4 credits

This course provides an examination of the objectives, strategies, programs, roles, perspectives, and interagency relationships of correctional agencies.

JUS-430♦: Criminal Law 4 credits

This course provides an introduction to criminal liability with an emphasis on the elements of a crime and governmental sanctions of individual conduct as formulated by the legislature and the court system.

JUS-430HN♦: Criminal Law 4 credits

This course provides an introduction to criminal liability with an emphasis on the elements of a crime and governmental sanctions of individual conduct as formulated by the legislature and the court system.

JUS-435♦: Criminal Procedure 4 credits

This writing intensive course is a study of the procedural process from a constitutional perspective as it relates to due process in the context of crime control.

JUS-441♦: Criminal Procedure and Public Policy 4 credits

This writing-intensive course covers the criminal procedural process from a constitutional perspective as it relates to due process and crime control. It also covers the mechanics of how public policy guides the administration of justice.

JUS-445♦: Justice Problem Analysis 4 credits

This course examines the proper and effective use of research and data in the administration of justice. The course describes how to identify justice-related problems in the community, collect data on the problem, analyze the data, and apply criminological theories to the data to solve the problem. Other aspects of how to use justice research to improve communities are covered.

♦ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | Ω Non-Transferable

JUS-452^{▲♦}: Juvenile Delinquency and Justice 4 credits

This writing-intensive course is an exploration of causes and responses to juvenile crime viewed through the prism of evolving societal perspectives on the criminal culpability of youth. Prerequisite: JUS-250.

JUS-452HN^{▲♦}: Juvenile Delinquency and Justice 4 credits

This writing-intensive course is an exploration of causes and responses to juvenile crime viewed through the prism of evolving societal perspectives on the criminal culpability of youth. Prerequisite: JUS-250.

JUS-470[♦]: Threat Assessment and Behavioral Analysis 4 credits

This course covers how to analyze natural, man-made, and accidental threats that could possibly threaten a community. It analyzes the process of how to identify possible threats and prepare for or eliminate them. Behavioral analysis is covered to show how it can be used in assessing possible threats to communities and individuals. Prerequisite: JUS-445.

JUS-481[♦]: Community-Based Strategic Planning 4 credits

This course examines performance management policies, practices, and systems related to community policing needs. The course covers how to enhance and redesign existing performance management practices across the community through collaborative engagement and management of resources. It covers how to use data to create a strategic plan to address justice-related problems. Prerequisite: JUS-470.

JUS-499: Independent Study 1 credits

This involves research, seminars, or readings on a special topic to be selected by the student and the faculty advisor are appropriate. This course may be taken for one, two, three or four credits, depending on the amount of time and work involved and may be repeated for up to four credits total credit per subject area unless specified otherwise in requirements for a major.

JUS-505: Critical Issues in Criminal Justice 4 credits

This course expands the student's understanding of the scope of criminological theories focused through contemporary peer-reviewed resources.

JUS-506: Criminal Behavior Analysis 4 credits

This course provides an examination of the relationship between psychology and the criminal justice system. Students develop an understanding of crisis intervention, criminal profiling, psychopathology, personality assessment, and related research methods.

JUS-510: Research Methods 4 credits

This course provides a fundamental analysis of research and a methodological evaluation of criminal justice topics. This course familiarizes students with aspects of statistical analysis and research design relevant to today's justice environment using both quantitative and qualitative methods. The course focuses on the practical application of research rather than exclusively on the theoretical.

JUS-515: Organizational Behavior and Leadership 4 credits

This course explores contemporary law enforcement management by examining personality, values, groups, power dimensions, decision making, conflict management, change, and organization development.

JUS-520: Restorative Justice 4 credits

This course compares and contrasts traditional goals of punishment (rehabilitation, incapacitation, retribution, and deterrence) with the concepts of restorative justice. Topics include community service, victim assistance, victim-offender mediation, and restitution. Restorative justice seeks a balance between the need to rehabilitate offenders while executing a duty to protect the public.

JUS-521: Criminal Investigations 4 credits

This course enhances students' understanding of criminal investigative procedure, collection and preservation of evidence, chain of custody concerns, computer forensics, investigative jurisdiction, administration, and use of information gathering techniques.

JUS-522: Ethics and Decision Making 4 credits

This course explores ethics in the context of criminal justice settings and situations. Various ethical questions are engaged to improve students' decision-making skills. The responsibility of the individual to act ethically and legally when working in the criminal justice field is emphasized. Some attention is also given to the role of Christian Ethics in criminal justice.

JUS-524: Terrorism and Homeland Security 4 credits

This course provides insight into the historical causes, strategies, and tactics of terrorism, as well as counterterrorism planning and utilization of law enforcement assets to prevent, detect, and deter acts of terrorism. Also covered are constitutional issues regarding terrorism suspects, long-term detention, financial embargoes of private funds, and other issues pertinent to the modern political climate.

JUS-618: Ethics and Liability for Policing and Corrections 4 credits

This course explores the subcultures created by police and correctional officers. Topics include the need for building a subculture of mutual support and survival in a dangerous profession, dilemmas of new officers entering corrupt departments, and ways administrators can help police and correctional officers rediscover their community.

JUS-620: Exploration of Law and Public Policy 4 credits

This course explores the interrelatedness of law and socioeconomic concerns and attempts to generate a holistic perspective of society and social control for those charged with the administration of justice.

JUS-630: International Law 4 credits

This course addresses the issue of international law in an increasingly interconnected world. The course explores the procedural workings of various international and regional organizations regarding public international law.

[▲] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

JUS-631: Exploration of Constitutional Criminal Law 4 credits

This course is designed to provide an overview of our constitutional system of criminal jurisprudence. The course provides a comprehensive study of various constitutional amendments and case law as they relate to criminal law. The importance of constitutional rights for the citizens of the United States is also explored.

JUS-632: Crime Prevention and Public Relations 4 credits

This course provides a comprehensive examination of the relationship between the police and the public. The course exposes students to strategies law enforcement personnel and agencies can use to develop positive relationships with the public. The relationship between greater communication, positive interactions, and crime prevention is explored.

JUS-635: Legal Research 4 credits

This course teaches students how to do legal research using both hardcopy and electronic resources. Presented from the perspective of a law specialist working for a client, this course allows students to consider a client's legal issues and to discover how to locate resources that address the problem, including statutes, regulations, court orders, court decisions, and secondary sources.

JUS-636: Crime Analysis and Case Management 4 credits

This course covers various aspects of crime analysis and how analysis can be used in managing cases and reducing crime. Data collection techniques as well as interpreting data for different purposes are addressed. Prerequisite: JUS-510.

JUS-640: Advanced Crime Analysis 4 credits

This course provides an advanced study of crime analysis techniques, trends, and uses. Finding patterns in crime data as well as communicating those patterns and trends for specific purposes is covered. This is an application based course to build useful skills in crime analysis. Prerequisite: JUS-636.

JUS-641: Legal Communication 4 credits

This course explores a variety of legal correspondence methods used to communicate with different persons and agencies within the legal community. The course provides practical application in legal communication methods. Prerequisite: JUS-635.

JUS-650: Strategic Analysis and Organizational Planning 4 credits

This course provides an in-depth study of strategic analysis and organizational planning practices for law enforcement leaders. The course prepares students to assess needs, make decisions, create plans, and implement those plans to enhance agency performance.

JUS-652^Ω: Capstone 2 credits

This course is taken in the final term of the graduate program. It focuses on professional portfolio development and a final written proposal by the graduate. The portfolio will contain the graduate's curriculum vitae, exemplars of writing from graduate courses, a statement of criminal justice philosophy, a 5-year plan for professional goals, and a research topic paper/written proposal. A final written proposal must focus on how the graduate will use the totality of the learning experience to examine and improve the criminal justice system at the federal, state, county, or city level. The proposal must exhibit adequate research, coordination within the extant layers of justice policy, realistic consideration of available resources, and a reasonable timeline of benchmarks.

JUS-655: Strategies for Effective Consulting 4 credits

This course is designed to assist students in exploring the different ways consulting can be used to capitalize on the legal knowledge and skills they have obtained. Consulting opportunities in the legal field, as well as the process and procedures of consulting are addressed.

Leadership (LDR)

LDR-461: Professional Applications in Service Learning I 1 credits

Students participate in discipline-specific service-learning opportunities designed to promote critical reflection. By engaging in their chosen field through 10 hours of volunteer service, students develop leadership skills and a practical connection to their field of study.

LDR-462: Professional Applications in Service Learning II 2 credits

Students participate in discipline-specific service-learning opportunities designed to promote critical reflection. By engaging in their chosen field through 20 hours of volunteer service, students develop leadership skills and a practical connection to their field of study.

LDR-463: Professional Applications in Service Learning III 3 credits

Students participate in discipline-specific service-learning opportunities designed to promote critical reflection. By engaging in their chosen field through 30 hours of volunteer service, students develop leadership skills and a practical connection to their field of study.

LDR-600: Leadership Styles and Development 4 credits

This course explores the nature of business leadership models and theories, examines these models through a broad variety of insights and viewpoints, and provides a description and analysis of these approaches to leadership, giving special attention to how the models can improve leadership in real-world organizations.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

LDR-604: IT Management and Leadership 4 credits

This course introduces leadership and team management skills relevant to leading information technology teams and departments. Students examine various structures of IT organizations and consider strategies and tactics for leading virtual and co-located technology teams, encouraging high employee performance, and managing conflict within dynamic business environments. Ethical issues in leadership and management are also considered.

LDR-610: Power, Politics and Influence 4 credits

This course focuses on sources and types of power and specific tactics for becoming an empowering leader. Issues include organizational politics, influence tactics, and succession planning. Students learn how transactional leaders can become transformational leaders.

LDR-612: Coaching, Mentoring, and Leadership Development 4 credits

This course introduces essential influence, coaching, and mentoring techniques for effective leaders while focusing on the importance of leadership development and succession planning within organizations.

LDR-615: Organizational Development and Change 4 credits

This course is an exploration of the behavioral forces and relationships that influence organizational effectiveness and change. Topics include the study of intervention strategy and application skills.

LDR-620: Leading as a General Manager 4 credits

This course is designed to prepare leaders for the cross-functional complexities inherent in organizational life. Students develop an advanced skill set enabling effective leadership in each of the major organizational functions (marketing, finance, human resource management, information systems, and operations management). The course explores methods of evaluating alternatives to make effective decisions.

LDR-630: Servant Leadership 4 credits

This course focuses on servant leadership, how a servant leader is different from other leaders, and how focusing on the needs of others can create interdependency rather than dependency in organizations.

LDR-640: Leadership and Innovation 4 credits

This course provides students with an understanding of various models of problem solving and the ability to apply them, as well as knowledge of various techniques, strategies, and skills appropriate for creative and innovative thinking.

LDR-645: Cross-Cultural Communication 4 credits

This course examines leadership communication in a cross-cultural setting and seeks to increase participants' overall communication skills. The importance of understanding key audiences is analyzed, including connecting and communicating with important stakeholders, communicating change, communicating during a crisis, and framing a leadership message.

LDR-655: Leadership Capstone 4 credits

This course serves as the culminating capstone experience for Master of Leadership students. Students lead an organization or community-based project and create a professional portfolio to demonstrate their leadership skills. Prerequisite: MGT-605, LDR-600, LDR-630, LDR-640, LDR-612, LDR-615.

LDR-661: Professional Applications in Service Learning I 1 credits

Students participate in discipline-specific service-learning opportunities designed to promote critical reflection. By engaging in their chosen field through 10 hours of volunteer service, students develop leadership skills and a practical connection to their field of study.

LDR-662: Professional Applications in Service Learning II 2 credits

Students participate in discipline-specific service-learning opportunities designed to promote critical reflection. By engaging in their chosen field through 20 hours of volunteer service, students develop leadership skills and a practical connection to their field of study.

LDR-663: Professional Applications in Service Learning III 3 credits

Students participate in discipline-specific service-learning opportunities designed to promote critical reflection. By engaging in their chosen field through 30 hours of volunteer service, students develop leadership skills and a practical connection to their field of study.

LDR-665: Cybersecurity Leadership Capstone 4 credits

This course is an integrative, practical, cybersecurity leadership experience. It provides a holistic view of information assurance and cybersecurity through the practical application of leadership duties in the information security industry.

LDR-800: Ethical Dilemmas and Stewardship 3 credits

This course examines multiple ethical frameworks, principles, and theories as they apply to the study and practice of leadership. Corporate social responsibility will be addressed from the perspective of ethical decision making. Prerequisite: RES-811.

LDR-802: Progressions in Leadership Thought 3 credits

This course provides an overview of seminal leadership theories and models. Learners focus on understanding the development and evolution of leadership theories and the range and emphasis of leadership research. Prerequisite: RES-811.

LDR-804: Leading Across Cultures 3 credits

This course explores the opportunities and challenges facing leaders in the global environment. The course topics focus on aspects of leading global and diverse workforces, and on theories of leadership and leadership development in diverse and global cultures. Prerequisite: RES-861 or RES-866.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

LDR-805: Innovation: The Last Frontier of Competitive Advantage 3 credits

In the face of rapidly changing customer needs, the importance of innovation to the survival of businesses cannot be overemphasized. Innovation has become the fundamental source of competitive advantage and new value for companies facing the threat of extinction. The purpose of this course is to develop an understanding of the leadership skills and capabilities required to foster, lead, and sustain innovation in organizations operating under either the “steady state” or change environment. The fundamental role of leadership in the innovation process is explored by evaluating the relationship between key leadership and innovation theories.

LDR-825: Strategic Planning and Change 3 credits

This course provides an overview of the impact of leadership and the effects of behaviors on the formulation and execution of strategy within an organization. Topics include the increasing importance of resilience and change in today’s global and turbulent economy. Prerequisite: RES-861 or RES-866.

Music Applied Piano (MAP)

MAP-118♦: Private Piano Study I 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MAP-120♦: Private Piano Study Majors I 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: Music Department approval and placement audition.

MAP-128♦: Private Piano Study II 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors. Prerequisites: MAP-118 or Music Department approval and placement audition.

MAP-130♦: Private Piano Study Majors II 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MAP-120 or Music Department approval and placement audition.

MAP-218♦: Private Piano Study III 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MAP-220♦: Private Piano Study Majors III 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MAP-130 or Music Department approval and placement audition.

MAP-230♦: Private Piano Study Majors IV 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MAP-220 or Music Department approval and placement audition.

MAP-250♦: Private Piano Study IV 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MAP-318♦: Private Piano Study V 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MAP-320♦: Private Piano Study Majors V 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MAP-230 or Music Department approval and placement audition.

MAP-330♦: Private Piano Study Majors VI 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MAP-320 or Music Department approval and placement audition.

MAP-350♦: Private Piano Study VI 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MAP-390Ω♦: Junior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's junior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

MAP-420♦: Private Piano Study Majors VII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MAP-330 or Music Department approval and placement audition.

MAP-430♦: Private Piano Study Majors VIII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MAP-420 or Music Department approval and placement audition.

MAP-450♦: Private Piano Study VII 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MAP-451♦: Private Piano Study VIII 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors. Prerequisites: Music Department approval and placement audition.

Δ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | Ω Non-Transferable

MAP-490^Ω: Senior Recital **0 credits**

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's senior year. Student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: Student must concurrently be enrolled in the appropriate level of private instruction.

Mathematics (MAT)

MAT-110[♦]: Basics of Algebra **4 credits**

This course is designed to build students' understanding of, and skill in, basic algebraic practices and procedures. Students learn to manipulate mathematical operations involving real and complex numbers. Topics include solving and graphing equations and inequalities, solving systems of equations, operations on functions, use of real and complex number systems, solving rational functions, and solving exponential and logarithmic functions. Emphasis will be placed on algebraic processes and building a framework for future courses.

MAT-110XV: Basics of Algebra **4 credits**

This course is designed to build students' understanding of, and skill in, basic algebraic practices and procedures. Students learn to manipulate mathematical operations involving real and complex numbers. Topics include solving and graphing equations and inequalities, solving systems of equations, operations on functions, use of real and complex number systems, solving rational functions, and solving exponential and logarithmic functions. Emphasis will be placed on algebraic processes and building a framework for future courses.

MAT-144[♦]: College Mathematics **4 credits**

The course covers mathematics that matter in modern society. Key areas of focus include financial literacy, numerically-based decision making, growth, scale, and numerical applications. The course applies basic college-level mathematics to real-life problems and is appropriate for students whose majors do not require college algebra or higher.

MAT-144XV: College Mathematics **4 credits**

The course covers mathematics that matter in modern society. Key areas of focus include financial literacy, numerically-based decision making, growth, scale, and numerical applications. The course applies basic college-level mathematics to real-life problems and is appropriate for students whose majors do not require college algebra or higher.

MAT-150[♦]: Mathematics for Elementary Teachers I **4 credits**

This is the first in a two-course sequence designed for prospective elementary school teachers. Concepts include set theory, functions, numeration systems, number theory and properties of the natural numbers, integers, rational numbers, ratios, proportions, decimals, and percents, with an emphasis on problem solving and critical thinking.

MAT-151[♦]: Mathematics for Elementary Teachers II **4 credits**

This is the second in a two-course sequence designed for prospective elementary school teachers. Concepts include elementary probability, data analysis, descriptive statistics, geometry of shapes in two and three dimensions, congruence and similarity, measurement, and geometric transformations, with an emphasis on problem solving and critical thinking. Prerequisite: MAT-150.

MAT-154[♦]: Applications of College Algebra **4 credits**

This course is designed to prepare learners to integrate fundamental mathematical concepts with the critical and quantitative thinking needed to solve workplace-related problems. The course is founded upon a functional and technological approach to algebra. Topics include functions, algebraic and exponential equations, systems, matrices, probability, and statistics. Emphasis is placed on developing students' understanding of mathematical representation and logical reasoning to solve real-world problems. Prerequisite: Grade of C or better in MAT-110.

MAT-154XV: Applications of College Algebra **4 credits**

This course is designed to prepare learners to integrate fundamental mathematical concepts with the critical and quantitative thinking needed to solve workplace-related problems. The course is founded upon a functional and technological approach to algebra. Topics include functions, algebraic and exponential equations, systems, matrices, probability, and statistics. Emphasis is placed on developing students' understanding of mathematical representation and logical reasoning to solve real-world problems. Prerequisite: Grade of C or better in MAT-110.

MAT-215[♦]: Discrete Mathematics **4 credits**

This course examines how discrete mathematics can be applied to problem solving as well as mathematical reasoning and communication. Additionally, this course introduces how mathematics uses established methods to determine and validate new conclusions through the use of discrete mathematics. Prerequisites: MAT-252 and MAT-253.

MAT-225[♦]: Mathematics and Technology through Time **4 credits**

This course is an exploration of the history of humanity through the lens of mathematics and technology. Students study important thinkers and their tools and techniques with an emphasis on how their discoveries have impacted the modern world. Students are shown insights into how those thinkers solved problems and the critical analysis to apply those insights to modern issues in diverse areas of interest. The use of tools and techniques of mathematics and technology aids in applying those insights. Prerequisite: MAT-250 or MAT-261.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MAT-250[♦]: College Algebra and Trigonometry 4 credits

This course is a unified study of fundamental algebra and trigonometry concepts that provide the necessary background for the study of calculus. Topics include linear equations and inequalities in one and two variables; scatter diagrams and curve fitting; polynomial, rational, exponential, logarithmic, and trigonometric functions, their graphs, and their inverse functions; and systems of equations and inequalities. There is an emphasis on developing both a fundamental understanding of the concepts involved as well as their application to real-world problem solving. Prerequisite: Grade of C or better in MAT-134 or MAT-154.

MAT-250XV: College Algebra and Trigonometry 4 credits

This course is a unified study of fundamental algebra and trigonometry concepts that provide the necessary background for the study of calculus. Topics include linear equations and inequalities in one and two variables; scatter diagrams and curve fitting; polynomial, rational, exponential, logarithmic, and trigonometric functions, their graphs, and their inverse functions; and systems of equations and inequalities. There is an emphasis on developing both a fundamental understanding of the concepts involved as well as their application to real-world problem solving. Prerequisite: Grade of C or better in MAT-134 or MAT-154.

MAT-251[♦]: Brief Calculus 4 credits

This course develops the concepts of calculus through a wide variety of applications. Topics include limits, continuity, derivatives, antiderivatives, and integration. Prerequisite: MAT-154.

MAT-252[♦]: Calculus and Analytic Geometry I 4 credits

This course provides a rigorous treatment of the concepts and methods of elementary calculus and its application to real-world problems. Topics include a brief review of linear, exponential, logarithmic, trigonometric, and inverse functions; understanding and calculating limits, continuity, and derivatives as rates of change; differentiation rules including derivatives of polynomials, exponentials, trigonometric, and logarithmic functions; product and quotient rules, the chain rule, and implicit differentiation; related rates, curve sketching, maximum and minimum problems, mean value theorem, linear approximation, indeterminate forms, and L'Hospital's rule; and applied optimization problems, antiderivatives, and approximating areas under the curve. Prerequisite: Grade of C or better in MAT-250 or MAT-261.

MAT-252XV: Calculus and Analytic Geometry I 4 credits

This course provides a rigorous treatment of the concepts and methods of elementary calculus and its application to real-world problems. Topics include a brief review of linear, exponential, logarithmic, trigonometric, and inverse functions; understanding and calculating limits, continuity, and derivatives as rates of change; differentiation rules including derivatives of polynomials, exponentials, trigonometric, and logarithmic functions; product and quotient rules, the chain rule, and implicit differentiation; related rates, curve sketching, maximum and minimum problems, mean value theorem, linear approximation, indeterminate forms, and L'Hospital's rule; and applied optimization problems, antiderivatives, and approximating areas under the curve. Prerequisite: Grade of C or better in MAT-250 or MAT-261.

MAT-253[♦]: Calculus and Analytic Geometry II 4 credits

This course provides a rigorous treatment of the concepts, methods, and applications of integral calculus and is the second course in a three-course sequence. Topics include definite integrals, fundamental theorem of calculus, and integration rules; arc length, solids of revolution, and physical applications; techniques of integration including improper integrals and an introduction to differential equations; polar coordinates, parametric equations, infinite sequences, and series; power series and conic sections; and vector arithmetic, dot product, and projections. Prerequisite: Grade of C or better in MAT-252.

MAT-253XV: Calculus and Analytic Geometry II 4 credits

This course provides a rigorous treatment of the concepts, methods, and applications of integral calculus and is the second course in a three-course sequence. Topics include definite integrals, fundamental theorem of calculus, and integration rules; arc length, solids of revolution, and physical applications; techniques of integration including improper integrals and an introduction to differential equations; polar coordinates, parametric equations, infinite sequences, and series; power series and conic sections; and vector arithmetic, dot product, and projections. Prerequisite: Grade of C or better in MAT-252.

MAT-254[♦]: Calculus and Analytic Geometry III 4 credits

This course provides a rigorous treatment of the concepts, methods, and applications of multivariable calculus and is the final course in a three-course sequence. Topics include vector arithmetic, dot and cross product, projections, parametric curves and vector functions, velocity and acceleration, arc length and curvature; functions of several variables; partial differentiation; maximum and minimum problems; Lagrange multipliers; double and triple integrals in polar, rectangular, cylindrical, and spherical coordinates; vector fields and line integrals; and conservative vector fields and fundamental theorem for line integrals, Green's theorem, curl and divergence, parametric surfaces, surface integrals, Stokes' theorem, and divergence theorem. Prerequisite: Grade of C or better in MAT-253.

[♦] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MAT-261♦: Pre-Calculus 4 credits

This course presents the fundamentals of algebra and trigonometry with an applied emphasis; it provides the background and introduction for the study of calculus. Topics include review of linear equations and inequalities in one and multiple variables; functions and their graphs; polynomial, rational, exponential, logarithmic, and trigonometric functions; vectors and complex numbers. Slope and rate of change are introduced to set up the concepts of limits and derivatives. There is an emphasis on both an understanding of the mathematical concepts involved as well as their application to the principles and real-world problems encountered in science and engineering. Software is utilized to facilitate problem analysis and graphing. Prerequisite: MAT-134 or MAT-154.

MAT-262♦: Calculus for Science and Engineering I 4 credits

This course provides a rigorous treatment of the concepts and methods of elementary calculus and its application to real-world problems. Topics include differentiation, optimization, and integration. Software is utilized to facilitate problem analysis and graphing. Prerequisite: MAT-261.

MAT-264♦: Calculus for Science and Engineering II 4 credits

This course provides a rigorous treatment of the concepts and methods of integral, multivariable, and vector calculus and its application to real-world problems. Prerequisite: MAT-262.

MAT-274♦: Probability and Statistics 4 credits

This course provides an introduction to the study of basic probability, descriptive and inferential statistics, and decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control population parameter estimation, and hypothesis testing. Prerequisite: Grade of C or better in MAT-134, MAT-144 or MAT-154.

MAT-274XV: Probability and Statistics 4 credits

This course provides an introduction to the study of basic probability, descriptive and inferential statistics, and decision making. Emphasis is placed on measures of central tendency and dispersion, correlation, regression, discrete and continuous probability distributions, quality control population parameter estimation, and hypothesis testing. Prerequisite: Grade of C or better in MAT-134, MAT-144 or MAT-154.

MAT-312♦: Higher Geometry 4 credits

This course provides an axiomatic approach to geometry, including analysis of the parallel postulate and an introduction to non-Euclidean models. Other topics include planar transformations and isometry groups, analytic geometry, and the history of geometry. Prerequisites: MAT-252 and MAT-345.

MAT-312HN♦: Higher Geometry 4 credits

This course provides an axiomatic approach to geometry, including analysis of the parallel postulate and an introduction to non-Euclidean models. Other topics include planar transformations and isometry groups, analytic geometry, and the history of geometry. Prerequisites: MAT-252 and MAT-345.

MAT-345♦: Applied Linear Algebra I 4 credits

This course is intended primarily for mathematics, science, and engineering students. The goal of the course is to impart the concepts and techniques of modern linear algebra (over the real scalar field) with a significant level of rigor. Students write clearly about the concepts of linear algebra (definitions, counterexamples, simple proofs), and apply theory to examples. The course emphasizes the practical nature of solutions to linear algebra problems. Students implement some of these solutions, where appropriate, as computer programs. Prerequisite: MAT-264 or MAT-253

MAT-351♦: Calculus for Biomedical Science 4 credits

This course is intended for health science majors and develops the concepts of calculus through a wide variety of biological and medical applications. Topics include an in-depth study of limits, continuity, the derivative and its applications, and antiderivatives. These concepts are examined through algebraic and transcendental functions of a single variable. Application areas include mathematical physiology, pharmacology, cell biology, and population biology. Prerequisite: MAT-250 or MAT-261.

MAT-352♦: Calculus and Analytic Geometry I 4 credits

This course covers in depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, and derivatives of algebraic, transcendental, and inverse functions; applications of the derivative; and integrals of algebraic and transcendental functions of one variable, with applications. Prerequisite: MAT-250.

MAT-353♦: Calculus and Analytic Geometry II 4 credits

This course provides a rigorous treatment of integration and is the second calculus course in a three-course sequence. Topics include applications of definite integrals, further techniques of integration, indeterminate forms, L'Hopital's Rule, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Prerequisite: MAT-352.

MAT-364♦: Differential Equations for Science and Engineering 4 credits

This course focuses on solutions and qualitative study of linear systems of ordinary differential equations, and on the analysis of classical partial differential equations. Topics include first- and second-order equations; series solutions; Laplace transform solutions; higher order equations; Fourier series; second-order partial differential equations. Boundary value problems, electrostatics, and quantum mechanics provide the main context in this course. Prerequisite: MAT-253 or MAT-264.

MAT-374♦: Probability and Statistics - Calculus Based 4 credits

This course covers the role of statistics in engineering, probability, discrete random variables and probability distributions, continuous random variables and probability distributions, joint probability distributions, random sampling and data description, point estimation of parameters, statistical intervals for a single sample, and tests of hypotheses for a single sample. Prerequisite: MAT-253 or MAT-264.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MAT-380♦: Mathematics for the Secondary Educator 4 credits

This course examines the core concepts of algebra and geometry, with a focus on the individual and interrelated elements, for the purpose of understanding their meaning, expression, and interaction. Therefore, course activities require clearly demonstrating an understanding of the meaning of these concepts with regards to secondary education in both verbal and written form. Prerequisite: MAT-252.

MAT-470^♦: Mathematical Modeling 4 credits

This writing intensive course is an introduction to the construction and analysis of mathematical and statistical models in diverse areas of human endeavor. Students use tools and approaches to solve challenging problems. Prerequisites: MAT-252, MAT-253, MAT-345 and MAT-274.

MAT-470HN^♦: Mathematical Modeling 4 credits

This writing intensive course is an introduction to the construction and analysis of mathematical and statistical models in diverse areas of human endeavor. Students use tools and approaches to solve challenging problems. Prerequisites: MAT-252, MAT-253, MAT-345 and MAT-274.

MAT-480: Methods of Teaching Mathematics in Secondary Schools 4 credits

This course is designed to develop an understanding and ability to apply the methods and principles of effective instruction using mathematics in the secondary classroom. This course examines different learning modalities, instructional strategies, and the use of technology to help plan and teach effective mathematical lessons that increase student achievement and are aligned to the mathematics standards. Practicum/field experience hours: 15. Fingerprint clearance required.

MAT-505: Discrete Math: Data-Analysis 4 credits

This course looks at evidence-based data analysis from a discrete mathematics perspective. Emphasis is placed on fundamental understanding of statistical descriptors. The theoretical framework is developed through applications in cognition and instruction. Prerequisite: MAT-513.

MAT-513: Graduate Algebra 4 credits

This course covers essential topics in algebra to prepare learners in their profession and to succeed in fulfilling future programmatic requirements. Topics include: algebraic structures, matrices, linear transformations, and their numerical applications.

MAT-525: History of Mathematical Thought 4 credits

The student is asked to use techniques of mathematical proof to trace the development of important foundations of thought and advances in mathematical thinking. This course follows the evolution of mathematics through history in its attempt to represent and understand the world around us. Topics covered include induction, logic, discrete analysis, calculus, and linear programming. Emphasis is placed on how a mathematical topic originated within its historical context and the theory used to support it. Prerequisite: MAT-513.

MAT-550: Mathematical Modeling 4 credits

The student is introduced to the techniques and examination of graduate-level mathematical modeling, including formulation, application, and analysis of a mathematical model. Topics covered include differential equations, computational methods, regression, and stochastic models. Emphasis is placed on applications and computational methods. Prerequisite: MAT-513.

MAT-552: Applied Nonlinear Dynamics 4 credits

This course provides a brief overview of ordinary differential equations, geometric representation of ODE solutions, autonomous systems, flows on the line, linear systems and phase portraits, nonlinear systems, local and global behavior, linearization, stability, and bifurcations. Applications include models extracted from population biology, ecology, and neurophysiology. Prerequisites: MAT-513 and MAT-550.

MAT-571: Real Analysis 4 credits

This course is an introduction to the rigorous theory underlying calculus, covering the real number system and functions of one variable. It is based entirely on mathematical proofs. The student is expected to know how to read and, to some extent, construct proofs before taking this course. Topics typically include construction of the real number system, properties of the real number system, continuous functions, differential and integral calculus of functions of one variable, and sequences and series of functions. Prerequisite: MAT-513.

Brass Instruments (MBE)

MBE-113♦: Private Applied Instruction-Secondary I 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors. Prerequisites: Music Department approval and placement audition.

MBE-115♦: Private Applied Instruction I 2 credits

This course includes private instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MBE-123♦: Private Applied Instruction-Secondary II 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MBE-125♦: Private Applied Instruction II 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MBE-115 or Music Department approval and placement audition.

MBE-213♦: Private Applied Instruction-Secondary III 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | ^ Non-Transferable

MBE-215♦: Private Applied Instruction III 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MBE-125 or Music Department approval and placement audition.

MBE-223♦: Private Applied Instruction-Secondary IV 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MBE-225♦: Private Applied Instruction IV 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MBE-215 or Music Department approval and placement audition.

MBE-313♦: Private Applied Instruction-Secondary V 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MBE-315♦: Private Applied Instruction V 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MBE-225 or Music Department approval and placement audition.

MBE-323♦: Private Applied Instruction-Secondary VI 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MBE-325♦: Private Applied Instruction VI 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MBE-315 or Music Department approval and placement audition.

MBE-390^Ω♦: Junior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's junior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

MBE-413♦: Private Applied Instruction-Secondary VII 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MBE-415♦: Private Applied Instruction VII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MBE-325 or Music Department approval and placement audition.

MBE-423♦: Private Applied Instruction-Secondary VIII 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MBE-425♦: Private Applied Instruction VIII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MBE-415 or Music Department approval and placement audition.

MBE-490^Ω♦: Senior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's senior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

Music Education (MED)

MED-200♦: Instrumental Techniques: Low Brass 1 credits

This course is a practical study of low brass instruments in which students learn to play, care for, and teach each instrument.

MED-201♦: Instrumental Techniques: Strings 1 credits

This course is a practical study of the high and low string instruments in which students learn to play, care for, and teach each instrument.

MED-202♦: Instrumental Techniques: Brass 1 credits

This course is a practical study of the high and low brass instruments in which students learn to play, care for, and teach each instrument.

MED-203♦: Instrumental Techniques: Winds 1 credits

This course is a practical study of the wind instruments in which students learn to play, care for, and teach each instrument. Practicum/field experience hours: None. Fingerprint clearance not required.

MED-205♦: Instrumental Techniques: High Brass 1 credits

This course is a practical study of high brass instruments in which students learn to play, care for, and teach each instrument.

MED-210♦: Instrumental Techniques: Clarinet and Saxophone 1 credits

This course is a practical study of the clarinet and saxophone in which students learn to play, care for, and teach each instrument.

MED-215♦: Instrumental Techniques: Double Reeds and Flutes 1 credits

This course is a practical study of flute and double reed instruments in which students learn to play, care for, and teach each instrument.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MED-220♦: Marching Band Techniques 1 credits

This course is a practical study of organizing and training marching bands for high schools and at the collegiate level.

MED-225♦: Instrumental Techniques: Percussion 1 credits

This course is a practical study of percussion instruments in which students learn to play, care for, and teach each instrument.

MED-320: Technology for Music Educators 2 credits

Students will study and utilize a variety of music technologies such as computer software, hardware, networking, multimedia, interactive media, and the Internet in order to foster inquiry, collaboration, and interaction in classroom to meet the needs of a diverse student population.

MED-335: Fundamentals of Music and Culture for Diverse Learners 3 credits

Students study music as culture, and explore the historical, philosophical, and sociological influences that have shaped music, ethnomusicology, and music education. This course also examines the issues faced by educators today, as well as the challenges that await people now entering the teaching profession. The course covers the unique learning needs of exceptional students. Emphasis is placed on definitions, etiology, characteristics, and prevalence of various exceptionalities; laws and litigation protecting the rights of students with special needs and their families; current issues affecting persons with special needs; social perceptions, assessment, inclusion, transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the music classroom. Practicum/field experience hours: 15. Fingerprint clearance required.

MED-335N: Fundamentals of Music and Culture for Diverse Learners 3 credits

Students study music as culture, and explore the historical, philosophical, and sociological influences that have shaped music, ethnomusicology, and music education. This course also examines the issues faced by educators today, as well as the challenges that await people now entering the teaching profession. The course covers the unique learning needs of exceptional students. Emphasis is placed on definitions, etiology, characteristics, and prevalence of various exceptionalities; laws and litigation protecting the rights of students with special needs and their families; current issues affecting persons with special needs; social perceptions, assessment, inclusion, transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the music classroom. Practicum/field experience hours: 10.

MED-340: Teaching General Music in the Elementary and Secondary Schools 2 credits

An introductory course to music education, this course is a study and demonstration of methods, materials, topics and issues in teaching general music in the schools. The course will cover methods, approaches, and philosophies of teaching general music as they relate to current national and Arizona music education standards. A study is made of activities implemented with each grade level. Lesson plans are prepared. Students visit classrooms to observe teaching situations. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisites: MUS-351 and MUS-351L or Music Department approval.

MED-340N: Teaching General Music in the Elementary and Secondary Schools 2 credits

An introductory course to music education, this course is a study and demonstration of methods, materials, topics and issues in teaching general music in the schools. The course will cover methods, approaches, and philosophies of teaching general music as they relate to current national and Arizona music education standards. A study is made of activities implemented with each grade level. Lesson plans are prepared. Students visit classrooms to observe teaching situations. Practicum/field experience hours: 20. Fingerprint clearance required.

MED-355: Music Methods and Assessment in the Elementary School 2 credits

This course is a study and demonstration of methods and materials for the first six grades. Students will be introduced to a number of methodologies including Orff, Dalcroze, Kodaly, and Suzuki, and explore their conceptual pedagogical framework, methodology, application and assessment. A study is made of activities implemented with each grade level. Lesson plans are prepared. Students visit classrooms to observe teaching situations. Practicum/field experience hours: 25. Fingerprint clearance required.

MED-355N: Music Methods and Assessment in the Elementary School 2 credits

This course is a study and demonstration of methods and materials for the first six grades. Students will be introduced to a number of methodologies including Orff, Dalcroze, Kodaly, and Suzuki, and explore their conceptual pedagogical framework, methodology, application and assessment. A study is made of activities implemented with each grade level. Lesson plans are prepared. Students visit classrooms to observe teaching situations. Practicum/field experience hours: 20. Fingerprint clearance required.

MED-365: Music Methods and Assessment in the Secondary School 2 credits

This course is a study of methods for developing and conducting the music program in junior and senior high schools, focusing on general pedagogy, curriculum, and assessment. Methods, materials, topics, and issues in music education will be used to prepare music education majors to enter the teaching profession. Practicum/field experience hours: 25. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MED-365N: Music Methods and Assessment in the Secondary School 2 credits

This course is a study of methods for developing and conducting the music program in junior and senior high schools, focusing on general pedagogy, curriculum, and assessment. Methods, materials, topics, and issues in music education will be used to prepare music education majors to enter the teaching profession. Practicum/field experience hours: 20. Fingerprint clearance required.

MED-371: Teaching General Music in the Elementary and Secondary Schools 2 credits

An introductory course to music education, this course is a study and demonstration of methods, materials, topics and issues in teaching general music in the schools. The course will cover methods, approaches, and philosophies of teaching general music as they relate to current national and Arizona music education standards. A study is made of activities implemented with each grade level. Lesson plans are prepared. Students visit classrooms to observe teaching situations. Practicum/field experience hours: 35. Fingerprint clearance required.

MED-415♦: Band Methods and Pedagogy 2 credits

A study of advanced problems in rehearsing and conducting at the high school level. An examination and analysis of the prevailing band philosophies, including performance techniques, score preparation, rehearsal techniques, programming, and administration of the band program.

MED-430♦: Vocal Pedagogy for Music Educators 2 credits

This course is a study of skills for the teaching of voice to individuals or groups. The physical voice, vocal health, and potential vocal problems are analyzed as well as historical methods of correction.

MED-480A^Ω: Student Teaching: Elementary Music 6 credits

Teacher candidates are required to fulfill an 8-week internship experience in a classroom with a certified, experienced teacher. The semester includes the opportunity to improve skills in classroom management, assessment, and professional preparation, and to utilize applicable content standards and Interstate Teacher Assessment and Support Consortium (InTASC) standards within the classroom. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching. Prerequisites: for A: Fingerprint Clearance and one of the following combinations: 1) Successful completion of all courses in the Program of Study, a 2.8 GPA, and approval and placement by the Office of Field Experience and Certification; or 2) Successful completion of all courses in POS and content area; senior status; a 2.8 GPA; successful completion of state mandated basic skills and content area exams or Praxis I ® (Basic Skills) and Praxis II ® (Content Area); Arizona residents will be required to take the Arizona Educator Proficiency Assessments (AEPa).

MED-480B^Ω: Student Teaching: Secondary Music 6 credits

Teacher candidates are required to fulfill an 8-week internship experience in a classroom with a certified, experienced teacher. The semester includes the opportunity to improve skills in classroom management, assessment, and professional preparation, and to utilize applicable content standards and Interstate Teacher Assessment and Support Consortium (InTASC) standards within the classroom. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching. Prerequisites: for B: Fingerprint Clearance and one of the following combinations: 1) Successful completion of all courses in the Program of Study, a 2.8 GPA, and approval and placement by the Office of Field Experience and Certification; or 2) Successful completion of all courses in POS and content area; senior status; a 2.8 GPA; successful completion of state mandated basic skills and content area exams or Praxis I ® (Basic Skills) and Praxis II ® (Content Area); Arizona residents will be required to take the Arizona Educator Proficiency Assessments (AEPa).

Mechanical Engineering (MEE)

MEE-340: Structure and Property of Materials 3 credits

This course covers basic concepts in materials structure and its relation to properties. The course will provide students with a broad overview of materials science and engineering. The goal of this course is to understand the fundamental reasons that materials have the properties they do. Students examine properties of interesting materials and try to understand them in terms of their actual atomic or molecular structure. Prerequisite: CHM-115, CHM-115L, PHY-122, PHY-122L, MAT-364. Co-Requisite: MEE-340L.

MEE-340HN[‡]: Structure and Property of Materials 3 credits

This course covers basic concepts in materials structure and its relation to properties. The course will provide students with a broad overview of materials science and engineering. The goal of this course is to understand the fundamental reasons that materials have the properties they do. Students examine properties of interesting materials and try to understand them in terms of their actual atomic or molecular structure. Prerequisite: CHM-115, CHM-115L, PHY-122, PHY-122L, MAT-364. Co-Requisite: MEE-340LHN.

MEE-340L: Structure and Property of Materials Lab 1 credits

This is the lab section of MEE-340. The course reinforces theoretical concepts covered in lecture and with hands-on activities. Students conduct lab experiments to better understand how certain properties of materials manifest themselves. Prerequisite: CHM-115, CHM-115L, PHY-122, PHY-122L, MAT-364. Co-Requisite: MEE-340.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

MEE-340LHN^Δ:	Structure and Property of Materials Lab	1 credits
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This is the lab section of MEE-340. The course reinforces theoretical concepts covered in lecture and with hands-on activities. Students conduct lab experiments to better understand how certain properties of materials manifest themselves.

Prerequisite: CHM-115, CHM-115L, PHY-122, PHY-122L, MAT-364. Co-Requisite: MEE-340HN.

MEE-352:	Solid Mechanics & Lab	4 credits
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This course covers concepts and theories of internal force, stress, strain, and strength of structural elements under static loading conditions. The course also examines constitutive behavior for linear elastic structures and deflection and stress analysis procedures for bars, beams, and shafts. Students will examine and analyze various modes of failure of solid materials. Prerequisite: ESG-250, ESG-360, MAT-364.

MEE-460:	Mechanical Instrumentation and Devices & Lab	4 credits
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This course introduces standard mechanical tests and computer based data acquisition techniques, e.g., installing thermocouples, strain gages, positioning static and probes. ASME and ASTM test codes are studied, as are OSHA standards. The course examines how various physical property and system performance tests are set up, conducted, and analyzed. Prerequisites: ESG-202, ESG-202L, and MAT-364.

MEE-471[♦]:	Principles of Mechanical Design I	2 credits
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Machine elements are selected and designed based on theories and methods developed in statics, dynamics, and strength of materials. Individual components will also be analyzed using CAE methods. Prerequisite: MEE-460, ESG-360.

MEE-472:	Principles of Mechanical Design II	2 credits
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This course covers the integration of machine elements into a system and the verification that the resulting system performs as intended in its operational environment. Areas of study include technical planning, requirements management, integration, verification, validation, and production. Prerequisite: ESG-360.

Music Ensemble (MEN)

MEN-305[♦]:	Musical Theater Workshop	0 credits
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This course is a workshop in developing the techniques and skills of musical theater performance, including a fully staged production. Emphasis will be placed equally on singing and acting skills providing students with the opportunity to study, develop, and improve their dramatic skills outside of their voice studios and gain valuable stage experience through performances of fully staged musical theater works. This experience should also help students to better understand the development of performance practice as it relates to other historical, theoretical, and compositional music studies. Detailed musical coaching will include stylistic study, diction, ornamentation, and discussions of performance practice. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-306[♦]:	Canyon Choral Society	0 credits
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This large choral non-auditioned campus community ensemble performs masterworks of the choral-symphonic literature, with major presentations in the Fall and Spring. The Canyon Choral Society is open to the students, faculty, and staff of Grand Canyon University and to the Phoenix community at large. Members of the Canyon Chorale, Critical Mass, and Canyon Singers are required to participate in the Canyon Choral Society.

MEN-308[♦]:	Canyon Chorale	0 credits
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The Canyon Chorale is an auditioned ensemble presenting the best in choral literature from historic masterworks of all stylistic periods and different cultures. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. The chorale performs on campus, in the metropolitan Phoenix and Tucson areas, and in churches and schools throughout the region. All members of the Canyon Chorale are required to participate in the Canyon Choral Society. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-312[♦]:	Opera Workshop	0 credits
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This course is a workshop in developing the techniques and skills of operatic performance, including a fully staged opera production. Emphasis will be placed equally on singing and acting skills providing students with the opportunity to study, develop, and improve their dramatic skills outside of their voice studios and gain valuable stage experience through performances of fully staged operatic works. This experience should also help students to better understand the development of performance practice as it relates to other historical, theoretical, and compositional music studies. Detailed musical coaching will include stylistic study, diction, ornamentation, and discussions of performance practice. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MEN-314♦: Canyon Singers 0 credits

This auditioned chamber-sized ensemble is geared towards music majors and those with significant choral experience. Its repertoire includes a variety of music, from Renaissance madrigals to contemporary selections, and music from non-western traditions, performing on campus and in the community. All members of the Canyon Singers are required to participate in the Canyon Chorale and in the Canyon Choral Society. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-315: Critical Mass 0 credits

This is a traveling vocal ensemble with a strong emphasis on Christian character, student leadership, and music that promotes the espoused mission of the University and the vision of the music department. Preparation and availability for touring is required. The ensemble is on the road during the school year, spring break and summer break representing Grand Canyon University at churches, schools, special events, and other venues throughout the United States and abroad. Emphasis is placed on musical excellence and individual commitment. All members of Critical Mass are required to participate in the Canyon Choral Society and other ensembles as assigned by the department. Prerequisites: Music Department approval and placement audition.

MEN-318^Q♦: Collaborative Music Ensemble Majors 0 credits

Coached instruction in chamber and small ensemble settings. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission. Co-Requisite: Enrollment in Private Studio instruction.

MEN-334♦: Percussion Ensemble 0 credits

The Percussion Ensemble provides students with the opportunity to develop their musical skills through rehearsal and performance in a percussion ensemble. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-336♦: Pep Band 0 credits

The Pep Band provides students with the opportunity to develop their musical skills through rehearsal and performance in a band ensemble. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-338♦: Wind Ensemble 0 credits

The Wind Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an opportunity to increase their performance skills through an active and challenging involvement with the creative process. The Wind Ensemble also offers non-music majors an avenue in which to continue making music throughout their college careers. The literature performed is selected from the finest contemporary and traditional repertoire. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-338A♦: Woodwind Chamber Ensemble 0 credits

The Woodwind Chamber Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an opportunity to increase their performance skills through an active and challenging involvement with the creative process in a small ensemble setting concentrating in the chamber music repertoire. The Woodwind Chamber Ensemble also offers non-music majors an avenue in which to continue making music throughout their college careers. The literature performed is selected from the finest contemporary and traditional repertoire. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-338B♦: Brass Chamber Ensemble 0 credits

The Brass Chamber Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an opportunity to increase their performance skills through an active and challenging involvement with the creative process in a small ensemble setting concentrating in the chamber music repertoire. The Brass Chamber Ensemble also offers non-music majors an avenue in which to continue making music throughout their college careers. The literature performed is selected from the finest contemporary and traditional repertoire. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-340: String Ensemble 0 credits

The String Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an opportunity to increase their performance skills through an active and challenging involvement with the creative process. The String Ensemble also offers non-music majors an avenue in which to continue making music throughout their college careers. The literature performed is selected from the finest contemporary and traditional repertoire. Prerequisites: Music Department approval and placement audition.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MEN-340A: String Chamber Ensemble 0 credits

The String Chamber Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an opportunity to increase their performance skills through an active and challenging involvement with the creative process in a small ensemble setting concentrating in the chamber music repertoire. The String Chamber Ensemble also offers non-music majors an avenue in which to continue making music throughout their college careers. The literature performed is selected from the finest contemporary and traditional repertoire. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

MEN-340B: Guitar Ensemble 0 credits

The Guitar Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an opportunity to increase their performance skills through an active and challenging involvement with the creative process. The Guitar Ensemble also offers non-music majors an avenue in which to continue making music throughout their college careers. The literature performed is selected from the finest contemporary and traditional repertoire. Prerequisites: Music Department approval and placement audition.

MEN-340C: Piano Ensemble 0 credits

The Piano Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an opportunity to increase their performance skills through an active and challenging involvement with the creative process. The Piano Ensemble also offers non-music majors an avenue in which to continue making music throughout their college careers. The literature performed is selected from the finest contemporary and traditional repertoire. Prerequisites: Music Department approval and placement audition.

MEN-348♦: Jazz Band 0 credits

The Jazz Band is a performance ensemble designed to provide the student with experience performing jazz-oriented material. Members are selected through an annual audition open to both music and non-music majors at Grand Canyon University. Prerequisite: Admission into this ensemble by audition only or instructor's permission.

Mechanical Engineering Technology (MET)

MET-203♦: Strength of Materials & Lab 4 credits

This course covers concepts of the strength of materials. Principally, the strength characteristics of metals will be examined including their performance in bending, torsion, shear, and uniaxial loading conditions. Additional topics will include buckling and pressure vessel calculations. Prerequisites: PHY-111, PHY-111L, CHM-113, and CHM-113L

MET-212♦: Static Analysis of Mechanical Systems & Lab 4 credits

This course covers static loading conditions in mechanical systems. Topics in this course include resolution of forces in both trusses and frames. Prerequisites: PHY-111 and PHY-111L. Co-Requisite: ESG-250.

MET-213♦: Dynamic Analysis of Mechanical Systems & Lab 4 credits

This course will examine both kinetics and kinematics of components and systems including the examination of mechanisms in dynamics. Prerequisite: MET-212.

MET-275♦: Computerized Design and Manufacturing Tools in MET & Lab 4 credits

This course is an extension of Computer-Aided Engineering (CAE) for Mechanical Engineering Technology.. Tools for Computer-Aided Design (CAD), Computer-Aided Manufacturing (CAM), and CAE, in general will be used in a variety of industrial applications. Emphasis will be placed upon how these computerized tools can be used in design and manufacturing including the introduction of Computerized Numerical Control (CNC) systems for the generation of tools paths and tool design. Prerequisite: MAT-252 or MAT-261, ESG-250.

MET-302♦: Principles of Design I & Lab 4 credits

This course covers analytical and practical methods of design, analysis, and reliability of mechanical systems. Design component elements include gears, belts, pulleys, chains, brakes, and power screws. Basic stress calculations and material selection will also be discussed. Prerequisites: PHY-111, PHY-111L and MET-275

MET-308♦: Fluid/Thermal Transport & Lab 4 credits

This courses examines fluid mechanics and heat transfer. Topics include flow measurement, pressure drop, heat exchangers, and hydraulics and their subsequent industrial applications. Prerequisites: PHY-111, PHY-111L, CHM-113, CHM-113L, and MET-213

MET-312♦: Metrology and CNC Machining & Lab 4 credits

This course covers the use of Computerized Numerical Control (CNC) machine tools. Topics include Geometric Dimensioning and Tolerancing (GD&T) and CNC programming. The course emphasizes safety and process planning. Prerequisites: PHY-111, PHY-111L and MET-275.

MET-315♦: Material and Processes & Lab 4 credits

This course examines the different aspects of material use in manufacturing processes. Topics include mechanical properties of metals, composites, atomic structure, corrosion, creep, failure theories, and heat treatment. Prerequisites: PHY-111, PHY-111L, CHM-113, and CHM-113L

MET-402♦: Principles of Design II & Lab 4 credits

This course is an extension of Principles of Design I and furthers the understanding of the design of mechanical systems. Failure theories and overall design considerations such as engineering economics and ethics will be covered. Prerequisite: MET-302

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MET-418♦: Heat and Power Generation & Lab 4 credits

This course examines the fundamental laws which exist in thermodynamics. Topics include ideal gases, mixtures, power and refrigeration cycles. Emphasis will be placed on applying knowledge to heating, ventilating, and air conditioning (HVAC) and refrigeration systems. Prerequisite: MET-308.

Marriage and Family Therapy (MFT)

MFT-526: Advanced Family Systems Theory 3 credits

This course examines the dynamic processes of traditional and nontraditional family and couple relationships and the role, value, and benefits of family systems therapy. The biopsychosocial perspectives of family and family systems are evaluated along with the foundational development of marriage and family therapy. Assessment and treatment of couples and families are also addressed.

MFT-532: Family Systems and Addictive Disorders 3 credits

This course examines the impact of substance use and addictive disorders on family systems. Various treatment interventions are discussed. The treatment roles and responsibilities of addicted individuals and their families are also examined.

MFT-620: Diversity in Family Systems 3 credits

This course examines the dynamic processes of diverse family systems, including multicultural families, blended families, same-sex parents, grandparents as primary caregivers, single-parent families, adoptive, foster, transitional families, and separated families.

MFT-621: Couples and Family Dynamics: Systemic Perspectives 3 credits

This course examines the development of problems within the family of origin, and the historical and theoretical perspectives of couples and family system dynamics. It addresses the dynamics of the parent/child relationship, family of origin influences, partner selection, and premarital therapy. Family roles and interactional patterns are examined, as are parenting and changes in the parental relationships across the lifespan, resilience, and divorce. Skills and techniques relevant to couples, premarital counseling, family therapy, parenting, and lifestyle transitions are explored.

Management (MGT)

MGT-240: Introduction to Management 4 credits

This introductory course deals with management and the basic management processes and functions. It focuses on real-world management situations concerned with planning, organizing, leading, and controlling, the work of the organization.

MGT-325: Managing Business Communications and Change 4 credits

This course focuses on the interpersonal skills and communication strategies and techniques required for success in diverse, dispersed, and global organizations. Students examine various facets of effective workplace communication, including the use of contemporary channels and the challenges of technologically mediated communication, and focus on persuasive strategies for communicating and facilitating change in today's dynamic organizations.

MGT-410♦: Servant Leadership 4 credits

This course focuses on servant leadership and ethical leadership, explores how servant leadership is different from other styles of leadership, and examines how this connects to ethics, accountability, and being a responsible leader. Also PSC-410.

MGT-420: Organizational Behavior and Management 4 credits

Drawing upon real-world management situations, this course is a study of individual and group behavior in organizations through detailed coverage of the functions of management, individual differences/diversity, leadership, motivation, decision making, organizational design, and organizational change and development. Emphasis is placed on how an understanding of organizational behavior leads to effective management practice.

MGT-420HN[‡]: Organizational Behavior and Management 4 credits

Drawing upon real-world management situations, this course is a study of individual and group behavior in organizations through detailed coverage of the functions of management, individual differences/diversity, leadership, motivation, decision making, organizational design, and organizational change and development. Emphasis is placed on how an understanding of organizational behavior leads to effective management practice. Also PSC-420.

MGT-422HN[‡]: Honors for Organizational Behavior and Management 4 credits

Drawing upon real-world management situations, this course is a study of individual and group behavior in organizations through detailed coverage of the functions of management, individual differences/diversity, leadership, motivation, decision making, organizational design, and organizational change and development. Emphasis is placed on how an understanding of organizational behavior leads to effective management practice.

MGT-434: Human Resources 4 credits

This course is a study of the human resource management function in organizations, including detailed coverage of staffing, organizational development, compensation and benefits administration, and employee relations. Emphasis is placed on how human resource management as a whole enhances organizational performance and success. Prerequisite: HIM-425, MGT-420, or MGT-422HN. Equivalent to AMP-434.

[‡] Writing intensive course | ♦ Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

MGT-440: Project Management 4 credits

This course is a study of the challenges associated with managing projects within the context of the overarching management framework of planning, organizing, leading, and controlling. Emphasis is placed on balancing competing priorities related to human resources, time constraints, and physical resources/materials, as well as managing and controlling project scope.

MGT-455: Production/Operations Management 4 credits

This course provides an introduction to designing, planning, operating, and controlling production systems. Emphasis is on managerial concepts and strategies relating to the management of operations in both manufacturing and service environments. Quantitative and qualitative methods and tools are introduced and applied. Prerequisite: BUS-352 or MAT-274.

MGT-492: Organizational Change and Development 4 credits

This course provides an overview of approaches to organizational development with an emphasis on the practical aspects of changing organizations to improve effectiveness. Equivalent to AMP-492.

MGT-605: Leadership and Organizations 4 credits

The purpose of this course is to introduce students to the College of Business, key concepts of leadership, and an overview of how the science of organizational behavior contributes to effective leaders and managers.

MGT-615: Organizational Change 4 credits

Organizational leaders are, by default, change agents. As such, contemporary leaders must proactively lead change throughout their organizations to ensure long-term organizational development, viability, and success. This course involves detailed study of various change management and organizational development models, theories, and methodologies. Students explore applications of the various theories to case studies, as well as their current professional settings.

MGT-640: Fundamentals of Project Management 4 credits

This course covers fundamental aspects of traditional project management as delineated in the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK). This course is designed to help prepare students for the PMI Certified Associate in Project Management (CAPM) and Project Management Professional (PMP) exams. The course also covers the basic logistics of taking the CAPM and PMP certification exams.

MGT-641: Agile Project Management 4 credits

This course covers agile aspects of project management including agile principles, best practices, and tools and techniques across major agile methodologies. This course is designed to help prepare students for the PMI Agile Certified Practitioner (ACP) exam. The course also covers the basic logistics of taking the ACP certification exam. Prerequisite: MGT-640.

MGT-655: Operations Management 4 credits

Operations Management examines managerial concepts and strategies relating to the management of operations in both manufacturing and service environments. Emphasis is placed on methods to streamline and drive inefficiencies out of a firm's internal processes to build a highly efficient organization. The course also focuses on external processes by examining ways to achieve greater supply chain integration with suppliers and customers. Quantitative and qualitative methods and tools are introduced and applied. Prerequisite: SYM-506.

MGT-660: Strategic Management 4 credits

This course examines the definition, formulation, and execution of strategy within organizations. There is specific emphasis on the role of innovation and leadership in strategic management and an organization's ability to achieve and sustain competitive advantage. Prerequisites: MGT-605, MKT-607, ACC-650, and FIN-650.

MGT-665: IT Project Management 4 credits

This course introduces project management techniques essential to the success of IT-driven organizations, including management of virtual teams and outsourcing. Students apply best practices for managing complex, collaborative IT projects with the goal of increasing quality and efficiency and adding value to organizations. Prerequisites: LDR-604, MIS-640, and MIS-652. Prerequisites: LDR-604, MIS-640, and MIS-652.

MGT-670: Strategic Management of Information Technology Capstone 4 credits

This course presents principles for strategic management of information technology systems within organizations with emphasis on assessing the impact of emerging technologies; enterprise system solutions; and recommending, deploying, and evaluating solutions. Students have the opportunity to synthesize and practice what they have learned in the program by undertaking an applied project within the IT industry. Projects focus on IT and systems management solutions to contemporary business needs. Emphasis is on critical thinking and problem-solving skills applicable in contemporary, IT-driven business organizations. Prerequisites: MGT-665 and MIS-657. Prerequisites: MGT-665 and MIS-657.

MGT-805: Designing Organizational Structures 3 credits

This course examines the foundational considerations of organizational design and the relationship between design and structures. It presents the key considerations relevant in designing and structuring the optimal organization. The theoretical foundations for such decisions are also presented.

MGT-810: Intellectual Capital in a Learning Organization 3 credits

This course explores the need to leverage intellectual capital and the human relations movement. Students focus on ways to manage knowledge and intellectual capital.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MGT-815: Managing Stakeholder Relationships 3 credits

In this course, students explore the needs of internal and external stakeholders and their interdependence. They focus on balancing stakeholders' interests while cultivating a mindset that is sensitive to cultural, legal, and ethical differences as well as social responsibility.

MGT-820: Using Business Analytics for Competitive Advantage 3 credits

Students will research the emerging use of business analytics in organizations. Through exploration of the available tools and models, this course will explore how analytics can be used for competitive advantage

MGT-825: Contemporary Business Law 3 credits

Learners explore the legal aspects of business management in a global integrated enterprise. Emphasis is placed on ethically limiting organizational liability in a complex business environment by extending the perspective of business beyond profit.

MGT-830: Management of Business Complexity 3 credits

This course provides the doctoral learner the opportunity to manage a fictitious business entity in which they balance conflicting resource requests. The doctoral learner applies the management, financial, marketing, technology, and economic skills acquired during the program of study to recommend policy decisions with the intent to increase stakeholder value, competitive advantage, and long term sustainability.

Mental Health and Wellness (MHW)

MHW-501: Introduction to Mental Health and Wellness 4 credits

This course is an introductory course in mental health and wellness practices. The purpose of the course is to develop a basic understanding of mental health and wellness practices and wellness approaches. An overview of mental health disorders, basic overview of treatment practices, and the Dimensions of Wellness are covered.

MHW-510: Ethics and Cultural Diversity in Mental Health and Wellness 4 credits

This course covers ethics and cultural diversity as it relates to mental health and wellness. The history of ethics is addressed, including how early ethical models evolved into modern ethical codes in the mental health and wellness professions. How ethics relates to legal standards and issues such as records and billing are addressed. Cultural diversity, sensitivity, and competence are covered.

MHW-511: Mental Health, the Biblical Narrative, and Christian Theology 4 credits

This course explores relevant topics such as the nature of God and mankind, sin and psychopathology from a Christian worldview. A theology of pain and suffering from a biblical perspective is examined. A brief overview of mental health and social issues most likely to be seen in a ministry setting is explored.

MHW-512: Introduction to Family Dynamics & Systems 4 credits

This course introduces students to the dynamics of the family unit. The family is examined as an interactive system of individuals whose roles and boundaries constantly shift to accommodate the needs of the collective family unit. The influence of relationships, interactional patterns, and communication among family members is covered through a systemic lens. Considering the function of behaviors will determine how problems are formed, perpetuated, and resolved within families.

MHW-513: Grief and Bereavement Theory and Practice 4 credits

This course covers the history of grief theory research. It investigates common experiences of individuals experiencing a loss. The various forms of loss and the unique characteristics of grievers are examined. Resources for grief and bereavement are covered.

MHW-514: Introduction to Prevention Science 4 credits

This course covers a history of prevention science and prevention programs. It examines what has been effective in the prevention field. The course reviews existing evidence-based prevention programs and practices, including how cultural differences have shaped the prevention field.

MHW-520: Group Dynamics 4 credits

This course provides an examination of group dynamics, types of group process structures, and various strategies used for group facilitation. The course shows how group dynamics is applied to various participants in both therapeutic and organizational settings. The course explores the purpose of group interventions as a viable treatment approach and how the dynamics of a group impacts its participants.

MHW-521: Integrating Psychology and Christian Theology 4 credits

This course explores the historical intersection of faith and science and how they apply to a contemporary setting. Various models of integration of psychology and Christian theology are examined. Students formulate their own understanding of the reciprocal relationship between psychology and Christian theology and examine implications for a ministry setting. Prerequisite: MHW-511.

MHW-522: Family Development 4 credits

This course examines the family life cycle, the development of individuals within the family, and the family system as a whole. It includes a survey of how cognitive, moral, and psychosocial developmental theories relate to family development and the transitions between family life cycle stages.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MHW-523: Journey of the Bereaved 4 credits

This course reviews typical biopsychosocial responses to grief and loss. It identifies and eliminates myths surrounding the grief process and thoroughly examines healthy and unhealthy ways of coping with loss. The course looks at grief from the shared experience of family and community.

MHW-524: Prevention Throughout the Lifespan 4 credits

This course covers the different developmental stages and the application of prevention strategies throughout the lifespan. The course examines evidence-based programs utilized throughout the developmental stages.

MHW-630: Documentation, Research, & Information Literacy in Mental Health & Wellness 4 credits

This course provides a comprehensive overview of mental health and wellness practice in a community healthcare setting. The importance of documentation, including the maintenance, accuracy, and integrity of health care records, as well as the ethics and policies concerning documentation is covered. The basics of research in the mental health and wellness field, such as data collection, interpretation, and the ethical implications of research, are covered. Information literacy is also covered, to provide a basic framework of common terminology and communication in the integration of mental health and medicine.

MHW-631: Spiritual Formation, Identity, and Wellness 4 credits

This course examines the physical, emotional, and spiritual health of the Christian helper. Focus is on maintaining vitality in ministry through healthy practices such as boundaries, spiritual disciplines, stress management, and healthy lifestyle practices. In addition, this course examines concepts of burnout, compassion fatigue, and vicarious traumatization as it applies to ministry. Students explore the importance of self-care that entails a balanced approach to ministry.

MHW-632: Parenting 4 credits

In this course, students examine the many facets of parenting. The historical and theoretical influences of parenting in the United States are covered. How parenting changes throughout the life span as well as how parenting is different in various family contexts is investigated. Research and evidence-based parenting practices regarding character development and promoting positive behavior are covered as well as how various factors affect parenting such as drugs and alcohol, poverty, and medical and psychological diagnoses.

MHW-634: Specific Prevention Topics 4 credits

This course reviews community and social health topics and the involvement of prevention science as the first line of defense. The SAMSHA prevention initiative is examined as well as the environmental influences on the implementation of effective prevention programming.

MHW-640: Mental Health, Wellness, and Health Care Integration 4 credits

This course provides a comprehensive understanding of mental health, wellness, and health care, including the integration of these three fields. The course covers common mental health disorders, treatments, and supportive services, as well as an integrated focus on the mind and the body. The course examines the health challenges often faced by individuals with behavioral or mental health disorders, and it reviews appropriate services, interventions, preventative services, and treatments to achieve and maintain health and wellness.

MHW-641: Mental Health Issues in Ministry 4 credits

This course exposes the Christian worker to a wide variety of life stressors that are issues needing attention in a ministry context. Students develop a practical ministry plan to address these needs. Prerequisite: MHW-521.

MHW-642: Families in Contemporary Society 4 credits

This course takes a holistic look at the structure and function of the family in contemporary society as well as the many societal influences that affect the family. It examines how modern phenomena such as nontraditional family structures, changing moral norms, and the proliferation of technology have impacted today's families and the way they interact with other community systems. Modern governmental guidelines and ethical challenges are also addressed.

MHW-643: Death & Dying: the Influences of Cultural, Spiritual & Sociological Factors 4 credits

This course explores how culture, spirituality, and society shape our understanding and experience of death and dying. While grief and loss are universal, how they are conceptualized and practiced around the world are largely determined by the confluence of these factors. Students become aware of how each of these overlapping areas have influenced their own views of death and dying as well as grasp a deeper understanding of others who are grieving.

MHW-644: Community Program Development, Implementation, and Evaluation 4 credits

This course examines the design of effective community-based and other prevention programs. The strategies for implementing prevention programs and how to conduct effective evaluation of prevention programs is reviewed. The differences and interplay between intervention and prevention is covered, as well as the funding and administration of prevention programs.

MHW-649^Ω: Mental Health and Wellness Capstone 4 credits

This course provides a practical, real-world exploration of the mental health and wellness field. Special focus is given to careers in mental health and wellness. The common duties and tasks performed by workers in the mental health and wellness field are investigated. Concepts covered throughout the program are examined through practical application. This course is the last course in the program of study; all other course work must be completed before this course.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Percussion Instruments (MIE)

MIE-113♦: Private Applied Instruction-Secondary I 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors. Prerequisites: Music Department approval and placement audition.

MIE-115♦: Private Applied Instruction I 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: Music Department approval and placement audition.

MIE-123♦: Private Applied Instruction-Secondary II 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MIE-125♦: Private Applied Instruction II 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MIE-115 or Music Department approval and placement audition.

MIE-213♦: Private Applied Instruction-Secondary III 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MIE-215♦: Private Applied Instruction III 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MIE-125 or Music Department approval and placement audition.

MIE-223♦: Private Applied Instruction-Secondary IV 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MIE-225♦: Private Applied Instruction IV 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MIE-215 or Music Department approval and placement audition.

MIE-313♦: Private Applied Instruction-Secondary V 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MIE-315♦: Private Applied Instruction V 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MIE-225 or Music Department approval and placement audition.

MIE-323♦: Private Applied Instruction-Secondary VI 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MIE-325♦: Private Applied Instruction VI 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MIE-315 or Music Department approval and placement audition.

MIE-390♦: Junior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's junior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

MIE-413♦: Private Applied Instruction-Secondary VII 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MIE-415♦: Private Applied Instruction VII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MIE-325 or Music Department approval and placement audition.

MIE-423♦: Private Applied Instruction-Secondary VIII 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MIE-425♦: Private Applied Instruction VIII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MIE-415 or Music Department approval and placement audition.

MIE-490♦: Senior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's senior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

Christian Studies (MIN)

MIN-104: Pastoral Identity Lab 1 credits

This lab explores pastoral self-reflection, anchoring one's identity in Christ, and preserving one's identity as roles change and responsibilities increase in life and ministry.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MIN-114: Spiritual Formation Lab 1 credits

This Lab explores practical application of spiritual formation techniques necessary to maintain a vibrant relationship with Christ and others within the context of ministry.

MIN-204: Relational Skills Lab 1 credits

This lab explores the importance of relationships and associated skills, such as listening, conversation, hospitality, and conflict resolution for life and ministry.

MIN-214: Ministry Skills Lab 1 credits

This lab focuses on discovering, developing, and practicing skills for leading in ministry. Special attention is given to the shepherding aspects of pastoral ministry.

MIN-320♦: Christian Character Formation 4 credits

This course examines the biblical truths, spiritual disciplines, virtues, and habits that contribute to the process of discipleship, form Christian character, and result in Christ-likeness. Special attention is given to the doctrine of sanctification and teaching related to ministerial ethics and the cultivation of Christ-like character. Prerequisites: BIB-106 and BIB-107.

MIN-350▲♦: Spiritual Formation for Christian Leaders 4 credits

This writing intensive course is a study of the basic disciplines of Christian discipleship, focusing on the formation of character, values, disciplines, and habits, especially related to the inner development of spirituality. The study makes use of some of the Christian devotional classics. Beyond personal spiritual development, this course addresses students' preparation for being spiritual leaders, encouragers, and/or disciplers of others. Prerequisites: BIB-106 and BIB-107.

MIN-360♦: Communication in Ministry 4 credits

This course helps students gain skills in biblical exegesis and the teaching of biblical principles. Emphasis is placed upon developing students' ability to teach the Bible, use technology in communication, and apply effective interpersonal communication skills within various settings. Prerequisite: BIB-355.

MIN-430♦: Ministerial Communication 4 credits

This course is a study of the theory and methods of oral communication with emphasis on the development of speaking and listening skills for application in ministerial contexts such as preaching, teaching, small group discussion, and interpersonal communication. Prerequisites: BIB-106, BIB-107, and BIB-355.

MIN-430HN/♦: Ministerial Communication 4 credits

This course is a study of the theory and methods of oral communication with emphasis on the development of speaking and listening skills for application in ministerial contexts such as preaching, teaching, small group discussion, and interpersonal communication. Prerequisites: BIB-106, BIB-107, and BIB-355.

MIN-480: Pastoral Leadership 4 credits

This course examines pastoral leadership skills needed to effectively navigate ministry. Special attention is given to pastoral identity, life management, shepherding and discipling, and the biblical qualifications for pastoral/ministerial leadership.

MIN-494: Ministry Internship 4 credits

This course consists of an internship experience in an approved ministry setting. The course includes reinforcement of all program competencies, practical experiences, academic journaling, as well as a field experience log, and culminating reflection assignment. Students should begin the internship application process after completion of 80 credit hours in the program.

MIN-500: Enchiridion on Ministry: Purpose, Principles, and Practice 4 credits

This course orients students to the seminary experience by focusing on the principled practices essential to navigating faithfully the rigors of graduate theological study and ministry life.

MIN-505: Spiritual Formation and Mentoring 4 credits

This course is a study of spiritual growth focusing on students' own spiritual formation and application through mentoring of others.

MIN-509: Christian Character Formation 4 credits

This course examines the biblical truths of the gospel and the corresponding virtues and habits that contribute to the process of discipleship. Students study God's work in the formation of Christ-like character as they learn to keep in step with the Spirit in all aspects of life. Special attention is given to the doctrine of sanctification and teaching related to ministerial ethics and character in the Pastoral Epistles. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-510: Christian Character Formation 4 credits

This course examines the biblical truths of the gospel and the corresponding virtues and habits that contribute to the process of discipleship. Students study God's work in the formation of Christ-like character as they learn to keep in step with the Spirit in all aspects of life. Special attention is given to the doctrine of sanctification and teaching related to ministerial ethics and character in the Pastoral Epistles.

MIN-511: Foundations of Youth and Family Ministry 4 credits

This course provides a foundation for ministry to youth and families. Students consider biblical foundations for ministry to youth and families and how to apply and contextualize those foundations for today's changing world. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-515: Pastoral Care in a Ministry Context 4 credits

This course equips students to provide effective ministry leadership in the areas of pastoral care and counseling in the local church. Emphasis is placed on caring for individuals, families, and small groups by nurturing spiritual formation with biblical wisdom. In addition, this course seeks to equip ministry leaders with skills and tools for biblical counseling. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-520: The Work of the Pastor 4 credits

This course is a study of the daily practice of pastoral ministry and the ethical issues that arise in the context of leading in ministry.

▲ Writing intensive course | ♦ Fulfills General Education requirement | ♠ Honors Major Course | Ω Non-Transferable

MIN-524: Evangelism and Discipleship 4 credits

This course is a practically oriented study of biblical principles and practices for faithfully communicating the gospel of Jesus Christ to non-Christians and guiding them toward spiritual maturity in Christ. Emphasis is placed on understandings, disciplines, and habits that facilitate the process of discipleship. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-526: Ministerial Ethics 4 credits

This course examines the biblical and theological foundations of Christian ethics along with an analysis of the roles and responsibilities of gospel ministry. Significant attention is given to self-care, personal morality, and character formation as well as ethical concerns unique to ministers as they lead, equip, shepherd, and intercede for God's people.

MIN-530: Youth Issues in Crises 4 credits

This course provides a holistic approach to youth ministry within the larger context of families, schools, etc., including the ethical implications to be considered in youth ministry.

MIN-535: Communicating in a 21st Century Ministry Context 4 credits

This course prepares students to address various aspects of communication in a local church ministry setting. Emphasis is placed on the various opportunities and challenges to communicate the gospel in small groups, Bible study, and discipleship programs. In addition, the course addresses the need to develop communication skills for a contemporary ministry context. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-601^Ω: Christ-Centered Preaching 4 credits

This course is an integrative study of biblically sound principles and practices for rightly handling God's word for the purpose of developing skill in the preparation and delivery of expository sermons. Emphasis is placed on the Christological focus of the Old and New Testaments and the vital relationship between the character of the messenger and responsible exegesis. This course is offered in residency for non-traditional students. Prerequisites: BIB-610 or BIB-611 and BIB-620 or BIB-621.

MIN-620: Stages of Development and Faith Formation 4 credits

This course helps students examine stages of human development and their impact on faith formation. Special attention is given to developmentally appropriate communication of biblical and theological content. Students develop strategies for discipling individuals and families. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-630: Mentoring and Counseling Youth 4 credits

This course is a study of techniques used in mentoring and providing a pastoral counseling ministry among youth.

MIN-650: Conflict, Crisis, and Pastoral Care 4 credits

This course equips students with basic skills for pastoral care and conflict resolution, with special emphasis given to caring for the soul of the leader as he or she ministers to people during times of crisis. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-655: Leading and Organizing Ministries in the Church 4 credits

This course furnishes practical training for ministry leaders. Emphasis is placed on both the leader's personal life and the organizational dynamics of the local church. In addition, this course aims to equip church leaders to manage and lead ministries in a multicultural and multigenerational context. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-670: Homiletics 4 credits

This course is a study of the techniques involved in preaching, including techniques for appropriate contextualization of the Christian message and preparation and delivery of sermons. Prerequisite: BIB-650.

MIN-675: Biblical Leadership and Ministry 4 credits

This course introduces principles of biblical leadership and ministry through an examination of the roles and responsibilities of Christian leaders within churches and parachurch organizations. Coursework focuses on leadership, administration, ministry, and interpersonal relations within particular ministry contexts. Emphasis is placed on living a life that exemplifies the gospel while leading and organizing the church according to the biblical principle. This course requires supervised ministry hours. Practicum/field experience hours: 45.

MIN-690: Ministry Internship 4 credits

This course consists of an internship experience in an approved church or ministerial setting. The course includes reinforcement of all program competencies and practical experiences in a ministry environment under the guidance and direction of a ministry supervisor. Practicum/field experience hours: 180. Prerequisites: HTH-611 and HTH-640.

MIN-807: Disciple Making in the Leadership Context 3 credits

The course examines the role of leadership in the disciple-making process. The interrelationship of disciples and volunteers is discussed. Prerequisite: RES-850.

MIN-812: Theology of Leadership 3 credits

This course provides an overview of the theories, theorists, and theology of leadership. Change management in ministry is addressed through the lenses of these theories and theology. Prerequisite: RES-850.

MIN-817: Christian Ministry and Culture 3 credits

The intersection of Christian ministry and culture is the primary focus of this course. Contextualization is explored as a means for the Church to remain relevant to the culture and community in order to bring about enduring change. Prerequisite: RES-861.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MIN-822: Trends and Issues in Christian Ministry 3 credits

Contemporary Christian ministry faces a set of challenges that are often unique to postmodern culture. This course explores those challenges and the role of the Christian ministry leader in mitigating them. Prerequisite: RES-861.

MIN-827♦: Practical Considerations in Christian Ministry 3 credits

This course presents potential applications of topics in Christian ministry leadership. Learners connect these ideas to their research interests.

Management Information Systems (MIS)

MIS-600: Applied Analytics for Business 4 credits

This course introduces the role and value of data analytics in meeting the business needs of contemporary organizations. Students are introduced to central issues related to data storage and handling and the stages in the analytics process. Students also study the role of ethics and security in information management and learn skills for managing analytics projects.

MIS-602: Innovation in Information Technology and Data Management 4 credits

This course introduces key issues in managing information technology and data within contemporary organizations. Students examine the role of leveraging IT and data analytics to drive innovation and add value to organizations through addressing business and market needs. Challenges regarding technology adoption and best practices for utilizing data for organizational decision making are also addressed.

MIS-605: Introduction to Databases 4 credits

This course introduces the basic role and uses of databases within business enterprises. Students examine database design types, development, staging, production environments, and maintenance of a database structure. Emphasis is on appropriate application and implementation of database functions in relation to performing data analytics.

MIS-610: Intermediate Database Applications 4 credits

This course covers complex characteristics of databases and their practical application in a business environment. The course examines the main principles and relative advantages of object-oriented and object-relational databases. Students gain working knowledge of object-relational features as implemented in standard SQL database management systems within a practice environment. Prerequisite: MIS-605.

MIS-640: Financial Decision Making 4 credits

This course introduces financial management principles relevant to information technology departments. Emphasis is on budgeting for the development and execution of IT projects and ongoing IT processes. Students consider the concept of capitalization and the role of transparency, return on investment, and aligning IT efforts with an organization's strategic financial objectives within the IT budgeting process. Prerequisites: BUS-600 and MIS-602. Prerequisites: BUS-600 and MIS-602.

MIS-650: Performing Analytics Using a Statistical Language 4 credits

In this course students perform analytics using a statistical language. Key topics include working with data, charting data, and building statistical models within a business environment. Prerequisites: MIS-610, and SYM-506 or equivalent.

MIS-652: Business Process Analysis 4 credits

This course introduces the fundamentals of business process analysis and its role in driving efficient and innovative organizations. Students examine business process mapping, workflow, change initiatives, process improvements with particular emphasis on effective change initiatives, and adoption of IT solutions that solve specific business needs. Prerequisite: MIS-602. Prerequisite: MIS-602.

MIS-655: Data Mining 4 credits

This course introduces techniques for extracting patterns and knowledge from large data sets. Students utilize intelligent inferential techniques to interpret patterns in the collected information and translate them into actionable items intended to solve specific business problems. Prerequisite: MIS-650.

MIS-657: Information Security and Risk Management 4 credits

This course examines core issues related to information security within the framework of effective IT governance. Students evaluate security mechanisms, operational issues, and policies and plans related to cybersecurity within organizations. There is also emphasis on threat analysis, assessing system vulnerabilities, forensics, and recovery. Prerequisite: MIS-602. Prerequisite: MIS-602.

MIS-660: Descriptive and Predictive Analytics 4 credits

This course examines foundational analytics concepts with an emphasis on descriptive and predictive analytics. Students work with selected industry tools and methods for describing, summarizing, and presenting data and make predictions using statistical analysis. There is also emphasis on interpreting business requirements in the design of analytical models and effective communication of findings through data visualization. Prerequisite: MIS-655.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MIS-665: Prescriptive Analytics and Advanced Topics 4 credits

In this course students perform prescriptive analytics and other advanced analytics techniques to extract meaning from organizational data for the purpose of identifying and recommending solutions for specific business needs. Effective and persuasive communication of data and decision options to drive organizational change is also covered. Prerequisite: MIS-660.

MIS-690^Ω: Applied Capstone Project 4 credits

This course builds upon the techniques and tools presented in prior courses in the program. Students undertake an applied project focused on a specific area of analytics within an organization. Students use critical thinking skills to frame analytics problems, build and apply appropriate analytics models, and communicate relevant findings within a business setting. Prerequisite: MIS-665.

Marketing (MKT)

MKT-245: Principles of Marketing 4 credits

This course surveys the marketing mix and marketing concept; markets and buyer behavior; product, service, and relationship marketing for global competition; creating and keeping customers in an e-commerce world; branding and positioning; distribution strategies, integrated marketing communications, and pricing strategies.

MKT-315: Introduction to Marketing 4 credits

This course introduces models and practices used by contemporary marketers in fast-paced, dynamic domestic and global markets including the marketing concept and processes for developing, implementing, and assessing the effectiveness of marketing plans. Building from a foundational understanding of consumer behavior and marketing research, students examine the development and implementation of marketing mix strategies and tactics with emphasis on integrated marketing communications that effectively combine traditional advertising and promotion with digital marketing.

MKT-345[♦]: Buyer and Consumer Behavior 4 credits

This course focuses on a behavioral science approach for examining distinct buyer strategies and decision-making processes of purchase by organizational buyers and consumers. Students evaluate external and internal influences, cross-cultural variations, and purchase and postpurchase processes to improve customer satisfaction and customer loyalty. Prerequisite: MKT-245 or MKT-315.

MKT-373: Sports Marketing 4 credits

This course is a study of basic marketing concepts with applications to sports organizations, both amateur and professional. Topics include promotions and public relations, sports consumer behavior, strategic market planning, marketing information management, marketing communications, and sponsorship. Prerequisites: BUS-232 and MKT-245 or MKT-315.

MKT-415: Promotion and Advertising 4 credits

This course provides students with an integrated marketing communications perspective. Students develop objectives and create ethical communications campaigns that integrate advertising and promotional strategies, tactics, budgets, and timelines. Prerequisite: MKT-245 or MKT-315.

MKT-445: Marketing Research and Reporting 4 credits

This course introduces marketing research processes and tools that inform managerial decision making in global business environments. Students conduct ethical research by utilizing data sources and applying statistical tools and measurement techniques. Students engage in independent and collaborative research project designs, develop comprehensive marketing research plans, and deliver industry-relevant reports and presentations. Prerequisites: MKT-245 or MKT-315 and BUS-352.

MKT-450: Marketing Management 4 credits

This course focuses on applying critical thinking skills to analyze and apply marketing strategies and tactics and achieve marketing opportunities in the globalized world. Students determine environmental factors that affect marketing strategies and apply traditional and cutting-edge techniques in promotion, pricing, distribution, and product development. Students create and manage marketing plans and determine choices that maximize profit and increase customer satisfaction and loyalty. Prerequisite: MKT-245 or MKT-315.

MKT-462[♦]: Digital Marketing and Advertising 4 credits

This course provides an integrated marketing communications perspective for advertising and promotion using Internet and mobile technologies. In this fast-paced and constantly evolving environment, students develop objectives and create ethical communications campaigns that integrate knowledge of cross-channel and multi-channel consumer behavior with website and landing page strategies and tactics, search engine optimization and search advertising, social media marketing, and mobility marketing. Prerequisite: MKT-245 or MKT-315.

MKT-465: Sports Retail Management and Sales 4 credits

This course examines sports retail management, including sports merchandizing and sales operations. Essential quality management techniques that drive profitability and organizational success are also discussed. Students explore current industry trends to determine potential innovations and strategies for sustaining organizational viability. Prerequisites: BUS-232 and MKT-245 or MKT-315.

MKT-607: Marketing Management 4 credits

Management of the marketing function, market environmental analysis, and marketing planning, strategy, and control are fundamentals of marketing management. The course examines the marketing process, marketing research, product development innovation and diffusion, pricing strategy, distribution value drain, advertising and promotion, and strategic marketing issues. Emphasis is placed on case study analysis and current academic research with a marketing plan as a significant curriculum component.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MKT-650: Services Marketing 4 credits

This course introduces students to the state-of-the-art research and practice in services marketing, with an emphasis on discussion of the field's most current services marketing concepts, principles and theories, and application of services marketing concepts to actual practice through case analysis and outside projects. Prerequisite: MKT-607.

MKT-660: International Marketing 4 credits

This course provides an analysis of current trends and issues facing an international firm's efforts to manage the marketing mix. Comparisons of language, aesthetics, religions, business customs, and attitudes on the marketing concept and strategies are addressed. Prerequisite: MKT-607.

MKT-830: The History and Philosophy of Marketing 3 credits

The course explores the theoretical foundations and supporting research of marketing history and philosophy. Legal and ethical considerations and emerging marketing strategies are addressed in their historical and philosophical context.

MKT-832: Digital Technology and Consumer Behavior 3 credits

This course explores current practices in digital communications in the context of integrated marketing communications. Learners will interact with a multi-year integrated business case as a means of exploring applications of marketing.

MKT-834: Data-Driven Marketing Management 3 credits

The course discusses the importance of acquiring and harnessing data and information for decision making throughout the marketing management process. This discussion includes the ethical application of data to the creation and evaluation of marketing plans leading to competitive advantage.

MKT-836: Consumer Behaviors in Global Marketing 3 credits

This course develops a global approach to the ideas and practices of marketing and marketing research by considering factors that affect consumer behavior. Attention is given to addressing the research surrounding culture as a factor in consumer behavior.

MKT-838: Complexity of Marketing 3 credits

Business is routinely using marketing strategies to create competitive advantage. This course addresses the complexity of implementing marketing solutions and the related cultural considerations. Learners will interact with a multi-year integrated business case to experience the complex interactions associated with conducting marketing research and exploiting marketing strategies for competitive advantage.

Music Piano Class (MPC)

MPC-109♦: Class Piano (Majors) 1 credits

This course is designed as class instruction for students with limited or no previous piano training. Instruction includes the study of piano technique and literature designed to pass Part I of the Piano Proficiency Examination.

MPC-259♦: Class Piano II 1 credits

This course is a continuation of MPC-109. It includes passing Part II of the Piano Proficiency Examination. Prerequisite: MPC-109 or Music Department approval.

MPC-359♦: Class Piano III 1 credits

This course is a continuation of MPC-259. It includes passing Part III of the Piano Proficiency Examination. Prerequisite: MPC-259 or Music Department approval.

MPC-459♦: Class Piano IV 1 credits

This course is a continuation of MPC-359. It includes passing Part IV of the Piano Proficiency Examination. Prerequisite: MPC-359 or Music Department approval.

String Instruments (MSE)

MSE-113♦: Private Applied Instruction Secondary I 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors. Prerequisites: Music Department approval and placement audition.

MSE-115♦: Private Applied Instruction Major I 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: Music Department approval and placement audition.

MSE-123♦: Private Applied Instruction Secondary II 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MSE-125♦: Private Applied Instruction Major II 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MSE-115 or Music Department approval and placement audition.

MSE-213♦: Private Applied Instruction Secondary III 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MSE-215♦:	Private Applied Instruction Major III	2 credits
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This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MSE-125 or Music Department approval and placement audition.

MSE-223♦:	Private Applied Instruction Secondary IV	1 credits
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This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MSE-225♦:	Private Applied Instruction Major IV	2 credits
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This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MSE-215 or Music Department approval and placement audition.

MSE-313♦:	Private Applied Instruction Secondary V	1 credits
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This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MSE-315♦:	Private Applied Instruction Major V	2 credits
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This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MSE-225 or Music Department approval and placement audition.

MSE-323♦:	Private Applied Instruction Secondary VI	1 credits
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This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MSE-325♦:	Private Applied Instruction Major VI	2 credits
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This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MSE-315 or Music Department approval and placement audition.

MSE-390^Ω♦:	Junior Recital	0 credits
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A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's junior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

MSE-413♦:	Private Applied Instruction Secondary VII	1 credits
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This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MSE-415♦:	Private Applied Instruction Major VII	2 credits
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This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MSE-325 or Music Department approval and placement audition.

MSE-423♦:	Private Applied Instruction Secondary VIII	1 credits
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This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MSE-425♦:	Private Applied Instruction Major VIII	2 credits
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This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MSE-415 or Music Department approval and placement audition.

MSE-490♦:	Senior Recital	0 credits
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A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's senior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

Military Science Leadership (MSL)

MSL-101:	Introduction to Leadership and Personal Development	3 credits
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This course introduces students to the personal challenges and competencies that are critical for effective leadership. Students learn how the personal development of life skills such as critical thinking, goal setting, time management, physical fitness, and stress management relate to leadership, officership, and the Army profession. The focus is on developing basic knowledge and comprehension of Army leader attributes and core leader competencies while gaining a big-picture understanding of ROTC, its purpose in the Army, and its advantages for the student. The course includes 3 hours of lecture/conference, one 2-hour lab of practical application, and one 2-day field training exercise.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MSL-101N: Introduction to the Army 3 credits

The MSL-101N course produces a Cadet who accepts the Army as a values-based organization and embraces the scholar-athlete-warrior ethos; who is familiar with individual roles and responsibilities in support of team efforts and problem solving processes in military and nonmilitary situations; who demonstrates oral and written communication skills, understands resilience, and demonstrates a commitment to learning. Live Honorably & Build Trust and Communicate and Interact Effectively. MSL-101N introduces Cadets to the Army and the Profession of Arms. Students will examine the Army Profession and what it means to be a professional in the U.S. Army. The overall focus is on developing basic knowledge and comprehension of the Army Leadership Requirements Model while gaining a big picture understanding of the Reserve Officers' Training Corps (ROTC) program, its purpose in the Army, and its advantages for the student. Cadets also learn how resiliency and fitness support their development as Army leaders. As you become further acquainted with MSL-101N, you will learn the structure of the ROTC Basic Course program consisting of MSL-102N, MSL-201N, MSL-202N, Fall and Spring Leadership Labs, and Basic Camp (Case by Case basis). The focus is on developing basic knowledge and comprehension of Army leadership dimensions, attributes, and core leader competencies while gaining an understanding of the ROTC program, its purpose in the Army, and its advantages for the student.

MSL-102: Introduction to Tactical Leadership 3 credits

This course provides an overview of leadership fundamentals such as setting direction, problem solving, listening, presenting briefs, providing feedback, and using effective writing skills. Students explore dimensions of leadership values, attributes, and competencies in the context of practical, hands-on, and interactive exercises. The course includes 3 hours of lecture/conference, one 2-hour lab of practical application, and one 2-day field training exercise.

MSL-102N: Foundations of Agile and Adaptive Leadership 3 credits

The MSL I course produces a Cadet who accepts the Army as a values-based organization and embraces the scholar-athlete-warrior ethos; who is familiar with individual roles and responsibilities in support of team efforts and problem solving processes in military and non-military situations; who demonstrates oral and written communication skills, understands resilience, and demonstrates a commitment to learning. Live Honorably & Build Trust and Communicate and Interact Effectively. MSL102 introduces Cadets to the Army and the Profession of Arms. Students will examine the Army Profession and what it means to be a professional in the U.S. Army. The overall focus is on developing basic knowledge and comprehension of the Army Leadership Requirements Model while gaining a big picture understanding of the Reserve Officers' Training Corps (ROTC) program, its purpose in the Army, and its advantages for the student. Cadets also learn how resiliency and fitness supports their development as an Army leader. As you become further acquainted with MSL-102N, you will learn the structure of the ROTC Basic Course program consisting of MSL-101N, 102N, 201N, 202N, Fall and Spring Leadership Labs, and Basic Camp (Case by Case basis). The focus is on developing basic knowledge and comprehension of Army leadership dimensions, attributes and core leader competencies while gaining an understanding of the ROTC program, its purpose in the Army, and its advantages for the student.

MSL-201: Innovative Team Leadership 3 credits

Every Fall. This course explores the dimensions of creative and innovative tactical leadership strategies and styles by examining team dynamics and two historical leadership theories that form the basis of the Army Leadership Requirements Model (trait and behavior theories). Students practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs. Focus is on continued development of the knowledge of leadership values and attributes. The course includes 3 hours of lecture/conference, one 2-hour lab of practical application, and one 2-day field training exercise.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [£] Honors Major Course | ^Ω Non-Transferable

MSL-201N: Leadership and Decision Making 3 credits

The MSL-201N course produces a Cadet grounded in foundational leadership doctrine and skills by following and leading small units to achieve assigned missions; who applies critical thinking and problem solving using Troop Leading Procedures (TLP); who comprehends the value of diversity, understands the officer's role in leading change, and understands the fundamentals of the Army as a profession. MSL-201N adds depth to the Cadets understanding of the Adaptability Army Learning Area. The outcomes are demonstrated through Critical and Creative Thinking and the ability to apply Troop Leading Procedures (TLP) to apply Innovative Solutions to Problems. The Army Profession is also stressed through leadership forums and a leadership self-assessment. Students are then required to apply their knowledge outside the classroom in a hands-on, performance-oriented environment during Leadership LABs, team building exercises, and Field Training Exercises. Cadets will be evaluated and their progress managed throughout the course; in addition, student's understanding of the course content will be monitored, ensuring students comprehend the learning objectives and are retaining the lesson content.

MSL-202N: Army Doctrine and Team Development 3 credits

MSL-202N focuses on Army doctrine and team development. The course begins the journey to understand and demonstrate competencies as they relate to Army doctrine. Army Values, Teamwork, Warrior Ethos, and their relationship to the Law of Land Warfare and philosophy of military service are also stressed. The ability to lead and follow is also covered through Team Building exercises in small units up to squad level. Students are then required to apply their knowledge outside the classroom in a hands-on, performance-oriented environment during Leadership LABs (team building exercises, LTXs, VBS exercises). Includes a 1-hour lab per week taught by MS III Cadets. The Army Reserve Officer Training Course (ROTC) Basic Course is an academically rigorous 2-year college program comprised of four semester courses of instruction, Leadership Labs (two sets, Fall/Spring), and the Cadet Basic Camp (Case by Case basis) conducted at Fort Knox, KY.: 1. MSL-101N, Introduction to the Army 2. MSL-102N, Foundations of Agile and Adaptive Leadership 3. MSL-201N, Leadership and Decision Making 4. MSL-202N, Army Doctrine and Team Development 5. Fall Leadership Lab 6. Spring Leadership Lab 7. Basic Camp (Case by Case basis) The focus is on developing basic knowledge and comprehension of Army leadership attributes and core leader competencies while gaining an understanding of the ROTC program, its purpose in the Army, and its advantages for the student.

MSL-301: Adaptive Team Leadership 3 credits

This course involves the study, practice, and evaluation of adaptive leadership skills as students are presented with the demands of preparing for the summer Leader Development and Assessment Course (LDAC). Challenging scenarios related to small-unit tactical operations are used to develop self-awareness and critical-thinking skills. Students receive systematic and specific feedback on their leadership values, attributes, skills, and actions. The course includes 3 hours of lecture/conference, one 2-hour lab of practical application, and one 2-day field training exercise. Prerequisites: MSL- 101, MSL- 102, MSL-201, and MSL- 202; MSL- 205; or prior military service and commitment to accept a commission and serve as an officer in the U.S. Army on active duty or in a reserve component.

MSL-301N: Training Management and the Warfighting Functions 3 credits

MSL-301N is an academically challenging course where you will study, practice, and apply the fundamentals of Army Leadership, Officership, Army Values and Ethics, Personal Development, and small unit tactics at the platoon level. At the conclusion of this course, you will be capable of planning, coordinating, navigating, motivating, and leading a squad and platoon in the execution of a mission during a classroom PE, a Leadership Lab, or during a Field Training Exercise (FTX). You will be required to write peer evaluations and receive feedback on your abilities as a leader and how to improve those leadership skills that can further develop you in to a successful officer. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a mid-term exam, and a final exam. You will receive systematic and specific feedback on your leader attributes, values, and core leader competencies from your instructor, other ROTC cadre, and MSL IV Cadets who will evaluate you using the Cadet Officer Evaluation System (COER). Successful completion of this course will help prepare you for the SROTC Advanced Camp, which you will attend in the summer at Fort Knox, KY.

MSL-302N: Applied Leadership in Small Unit Operations 3 credits

MSL-302N is an academically challenging course where you will study, practice, and apply the fundamentals of Army Leadership, Army Values and Ethics, Personal Development, and small unit tactics at the platoon level. At the conclusion of this course, you will be capable of planning, coordinating, navigating, motivating, and leading a squad and platoon in the execution of a mission during a classroom PE, a Leadership Lab, or during a Field Training Exercise (FTX). You will be required to write peer evaluations and receive feedback on your abilities as a leader and how to improve those leadership skills that can further develop you in to a successful officer. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a mid-term exam, and a final exam. You will receive systematic and specific feedback on your leader attributes, values, and core leader competencies from your instructor, other ROTC cadre, and MSL IV Cadets who will evaluate you using the Cadet Officer Evaluation Report (COER). Successful completion of this course will help prepare you for the SROTC Advanced Camp, which you will attend in the summer at Fort Knox, KY.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MSL-401: Adaptive Leadership 3 credits

Develop proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing leadership-performance feedback to subordinates. Students are given situational opportunities to assess risk, make sound ethical decisions, and provide coaching and mentoring to fellow students. Students are measured by their ability to give and receive systematic and specific feedback on leadership abilities using the Socratic model of reflective learning. Students analyze and evaluate the leadership values, attributes, skills, and actions of subordinate students while simultaneously considering their own leadership skills. The course includes 3 hours of lecture/conference, one 2-hour lab of practical application, and one 2-day field training exercise. Prerequisites: MSL-301, MSL-302, and commitment to accept a commission and serve as an officer in the U.S. Army on active duty or in a reserve component.

MSL-401N: The Army Officer 3 credits

This is an academically challenging course where you will study, practice, develop, and apply critical thinking skills pertaining to Army leadership, officer skills, Army Values and ethics, personal development, and small unit tactics at platoon level. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, a mid-term exam, and final exam. You will be assessed on the execution of missions during a classroom PE, Leadership Lab, or during a Field Training Exercise (FTX). You will receive systematic and specific feedback on your leader attributes, values, and core leadership competencies from your cadre, PMS, and other MSL IV Cadets who will evaluate you using the Cadet Officer Evaluation Report (COER). You will be required to write peer evaluations and receive feedback on your abilities as a leader and how to improve those leader skills. At the conclusion of this course, you will be able to plan, coordinate, navigate, motivate, and lead a platoon in future operational environments. Successful completion of this course will assist in preparing you for your BOLC B course and is a mandatory requirement for commissioning.

MSL-402: Leadership in a Complex World 3 credits

A continuation of MSL-401, this course explores the dynamics of leading in the complex situations of current military operations in the contemporary operating environment (COE). Students complete exercises to prepare them for the complex ethical and practical demands of leading as a commissioned officer in the United States Army. The course includes 3 hours of lecture/conference, one 2-hour lab of practical application, and one 2-day field training exercise. Prerequisites: MSL-301, MSL-302, MSL-401 (or instructor approval), and commitment to accept a commission and serve as an officer in the U.S. Army on active duty or in a reserve component.

MSL-402N: Company Grade Leadership 3 credits

This is an academically challenging course where you will study, practice, develop, and apply critical thinking skills pertaining to Army leadership, officer skills, Army Values and ethics, personal development, and small unit tactics at platoon level. This course includes reading assignments, homework assignments, small group assignments, briefings, case studies, practical exercises, mid-term exam, and a Capstone Exercise in place of the final exam. For the Capstone Exercise, you will be required to complete an Oral Practicum that will be evaluated on your knowledge of the 20 Army Warfighting Challenges (AWFC) covered throughout MSL-401N and MSL-402N coursework. In addition, you could be assessed on leadership abilities during classroom PE, Leadership Labs, or during a Field Training Exercise (FTX). You will receive systematic and specific feedback on your leader attributes, values, and core leader competencies from your cadre, PMS, and other MSL IV Cadets who will evaluate you using the Cadet Officer Evaluation Report (COER). You will be required to write peer evaluations and receive feedback on your abilities as a leader and how to improve those leadership skills. At the conclusion of this course, you will be able to plan, coordinate, navigate, motivate, and lead a platoon in future operational environments. Successful completion of this course will assist in preparing you for your BOLC B course and is a mandatory requirement for commissioning.

MSL-499: Independent Study 1 credits

Students in this course work closely with the Professor of Military Science on a special topic. Work may include research, readings, and presentations. This course may be repeated once. Prerequisite: Instructor approval.

Music (MUS)

MUS-111[♦]: Diction: Italian 1 credits

A study of Italian song transliteration, utilizing the International Phonetic Alphabet and emphasizing the broad skills of correct choice, correct performance of sounds, and performance practice of sung Italian. (Preferred default course)

MUS-112[♦]: Diction: French 1 credits

A study of French song transliteration, utilizing the International Phonetic Alphabet and emphasizing the broad skills of correct choice, correct performance of sounds, and performance practice of sung French. Prerequisite: MUS-111 or Music Department approval. (Preferred default course)

MUS-130[♦]: Music Theory 3 credits

Study is devoted to the structure of music, which includes harmony, melody, form, and rhythm. Skill development in analysis and composition is emphasized. The music of the "common practice period" will be studied. Co-requisite: MUS-130L.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MUS-130L♦: Music Theory I Lab (Aural Skills and Musicianship) 1 credits

This course is a study in rhythmic, melodic, and harmonic dictation; basic keyboard performance; and sight singing. Computer-assisted ear training is utilized. Study is devoted to the structure of music, which includes: harmony, melody, form, and rhythm. Skill development in analysis and composition is emphasized. The music of the “common practice period” will be studied. Co-requisite: MUS-130.

MUS-160♦: Music Theory II 3 credits

A continuation of MUS-130, this course emphasizes skill development through analysis and composition. Prerequisites: MUS-130 and MUS-130L or Music Department approval. Co-requisite: MUS-160L.

MUS-160L♦: Music Theory II Lab (Aural Skills and Musicianship) 1 credits

A continuation of MUS-130L, this course emphasizes aural skill development through practical study in rhythmic, melodic, and harmonic dictation; basic keyboard performance; and sight singing. Computer-assisted ear training is utilized. Prerequisites: MUS-130 and MUS-130L or Music Department approval. Co-requisite: MUS-160.

MUS-210♦: Music Appreciation 4 credits

This course introduces the study of the intellectual, emotional, and aesthetic nature of music, its history, theory, and literature. It explores the major works of great composers and explores the elements that contribute to their longevity. Students learn to appreciate and critique live performances.

MUS-210XV: Music Appreciation 4 credits

This course introduces the study of the intellectual, emotional, and aesthetic nature of music, its history, theory, and literature. It explores the major works of great composers and explores the elements that contribute to their longevity. Students learn to appreciate and critique live performances.

MUS-211♦: Diction: German 1 credits

A study of German song transliteration, utilizing the International Phonetic Alphabet and emphasizing the broad skills of correct choice, correct performance of sounds, and performance practice of sung German. Prerequisite: MUS-111 or Music Department approval.

MUS-215♦: Lyric Diction for Music Educators 1 credits

This course is an introductory study of the enunciation and International Phonetic Alphabet (IPA) transcription of the Italian, German, French, and Latin languages for music educators. Students are introduced to a rich vocabulary of texts commonly used within the repertoire.

MUS-218♦: Popular Music in American Society 4 credits

This course will survey the history of American popular music genres. Through understanding styles and forms within the context of their origins, popular music is understood in the relationship of its functions in society.

MUS-223♦: Conducting 2 credits

This course is a study of the fundamentals and techniques of conducting. Emphasis is placed on basic conducting skills, fundamentals of baton technique, left hand technique, non-verbal communication, leadership, conducting terminology, transpositions, and score reading.

MUS-223HN[†]♦: Conducting 2 credits

This course is a study of the fundamentals and techniques of conducting. Emphasis is placed on basic conducting skills, fundamentals of baton technique, left hand technique, non-verbal communication, leadership, conducting terminology, transpositions, and score reading.

MUS-227♦: Music in World Culture 4 credits

This course is an introduction to the music of the world as a means to express different elements of culture, civilization, and worldview.

MUS-262♦: Music Theory III 3 credits

A continuation of MUS-160, this course emphasizes skill development through analysis and composition. Music examples are selected from Bach through Wagner. It also includes an advanced study in analysis and part writing utilizing modulation and chromatic harmony. Prerequisites: MUS-160 and MUS-160L or Music Department approval. Co-requisite: MUS-262L.

MUS-262L♦: Music Theory III Lab (Aural Skills and Musicianship) 1 credits

A continuation of MUS-160L, this course is a study in rhythmic, melodic, and harmonic dictation; basic keyboard performance; and sight singing. Computer-assisted ear training will be utilized. Prerequisites: MUS-160 and MUS-160L or Music Department approval. Co-requisite: MUS-262.

MUS-310^Δ♦: Choral Literature for Music Educators 2 credits

This course is a survey study of the composers and choral literature appropriate for elementary and secondary school ensembles. Major literature; publishers; composers, arrangers, and their styles; and common performance and teaching problems will be considered.

MUS-326♦: Orchestration and Arranging 2 credits

This course is a study and application in techniques of scoring and arranging music for various combinations of musical mediums. Includes scoring for strings, woodwinds, brasses, percussion, and voices.

MUS-327♦: Band Literature for Music Educators 2 credits

This course is a survey study of the composers and band literature appropriate for elementary and secondary school ensembles. This course will consider major literature, publishers, composers, arrangers, and their styles, as well as common performance and teaching problems.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MUS-331♦: Choral Methods and Pedagogy 4 credits

A study of advanced problems in rehearsing and conducting at the high school level. An examination and analysis of the prevailing choral philosophies, including performance techniques, score preparation, rehearsal techniques, programming, and administration of the choral program.

MUS-335♦: Survey of Jazz 4 credits

This course will survey the development of jazz music from its genesis, transformation, and growth to current postmodern practices. The styles are explored through the social identity of the music and musicians.

MUS-351♦: Music Theory IV 3 credits

A continuation of MUS-262, this course emphasizes skill development through analysis and composition. This course includes analysis and composition methods of music of the late 19th through the 20th century. Prerequisites: MUS-262 and MUS-262L or Music Department approval. Co-requisite: MUS-351L.

MUS-351L♦: Music Theory IV Lab (Aural Skills and Musicianship) 1 credits

A continuation of MUS-262L, this course is a study in rhythmic, melodic, and harmonic dictation; basic keyboard performance; and sight singing. Computer-assisted ear training will be utilized. Prerequisites: MUS-262 and MUS-262L or Music Department approval. Co-requisite: MUS-351.

MUS-357♦: Music Composition Seminar 2 credits

This course introduces students to the creative processes in music composition, building on the study of music theory as a foundation for composing original music. Students explore the parameters of music and sound by composing original works in various styles. Prerequisites: MUS-160 and MUS-160L.

MUS-359♦: Composition Using Music Technology 2 credits

This course will explore the use of music technology as a foundation for composing original works in various styles. Prerequisites: MUS-160 and MUS-160L.

MUS-360♦: Music History I 3 credits

This writing intensive course is a survey of music from primitive times to the mid-18th century. It presents the growth of music in the Middle Ages and Renaissance through the contrapuntal schools, culminating in the work of J. S. Bach and the development of opera and oratorio during the baroque period.

MUS-360HN^Δ♦: Music History I 3 credits

This writing intensive course is a survey of music from primitive times to the mid-18th century. It presents the growth of music in the Middle Ages and Renaissance through the contrapuntal schools, culminating in the work of J. S. Bach and the development of opera and oratorio during the baroque period.

MUS-369^Δ♦: Music History II 3 credits

This writing intensive course is a survey of music from the mid-18th century to modern times. Study is devoted to the rise of homophonic music, the art song, the nationalistic schools, and the principal composers of the classical, romantic, and contemporary periods. Prerequisite: MUS-360 or Music Department approval.

MUS-369HN^Δ♦: Music History II 3 credits

This writing intensive course is a survey of music from the mid-18th century to modern times. Study is devoted to the rise of homophonic music, the art song, the nationalistic schools, and the principal composers of the classical, romantic, and contemporary periods. Prerequisite: MUS-360 or Music Department approval.

MUS-370^Δ♦: Piano Literature I 2 credits

This course is a survey of baroque and classical periods. Emphasis is on learning the standard piano repertoire through reading and listening assignments.

MUS-375^Δ♦: Song Literature I 2 credits

This course is a survey study of the composers, their styles, and literature from the beginning of solo song through the early romantic period.

MUS-376^Δ♦: Song Literature II 2 credits

This course is a survey study of the composers, their styles, and literature from the middle romantic period of solo song through the contemporary period. It is a continuation of MUS-375.

MUS-377^Δ♦: Piano Literature II 2 credits

This course is a survey of romantic and contemporary periods. Emphasis is on learning the standard piano repertoire through reading and listening assignments.

MUS-378^Δ♦: Chamber Music Literature 2 credits

This course is a survey of chamber music literature. Emphasis is on learning the standard repertoire through reading and listening assignments.

MUS-379♦: Symphonic Literature 2 credits

This course is a survey of symphonic literature. Emphasis is on learning the standard repertoire through reading and listening assignments.

MUS-393♦: Form and Analysis 3 credits

This course is a study of the various organizational structures in music, from motive, phrase, and period, through binary and ternary forms to the most complex, such as the variation, rondo, and sonata. Works of the masters are analyzed from the standpoint of form. Prerequisites: MUS-351 and MUS-351L, or MUS-275 or Music Department approval.

MUS-393HN^Δ♦: Form and Analysis 3 credits

This course is a study of the various organizational structures in music, from motive, phrase, and period, through binary and ternary forms to the most complex, such as the variation, rondo, and sonata. Works of the masters are analyzed from the standpoint of form. Prerequisites: MUS-351 and MUS-351L, or MUS-275 or Music Department approval.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

MUS-394♦: Counterpoint 3 credits

This course is a survey of contrapuntal practice from the 18th century. Background reference is made to early polyphonic music. Emphasis is given to 16th century species counterpoint and to analyzing and writing inventions and fugues in the 18th century style of J. S. Bach. An introduction is provided for the use of counterpoint in 20th century composition. Prerequisites: MUS-351 and MUS-351L, or MUS-275.

MUS-406♦: Jazz Techniques 1 credits

This course is a study of major jazz techniques and styles, including repertoire, instrumentation, improvisation, innovations, and major jazz ensembles.

MUS-417♦: Collaborative Piano I 2 credits

This course is an introduction to collaborative and accompanying techniques and repertoire. Emphasis is placed on effective personal practice and preparation methods and ensemble rehearsal techniques. Collaborative skills of shared musical leadership, ensemble balance, and other performance issues are addressed through master class and private coaching of repertoire prepared as part of required assignments in vocal and/or instrumental studios. Score study, sight-reading, as well as techniques for dealing with orchestral piano reductions are also covered. Prerequisite: Advanced Standing or Music Department approval.

MUS-418♦: Collaborative Piano II 2 credits

This course is a continuation to Collaborative Piano I. Collaborative and accompanying techniques and repertoire continue to be developed; collaborative skills of shared musical leadership, ensemble balance, and other performance issues are addressed through master class and private coaching of repertoire prepared as part of required assignments in vocal and/or instrumental studios. Score study, sight-reading, as well as techniques for dealing with orchestral piano reductions are also covered. Prerequisite: MUS-417 or Music Department approval.

MUS-427♦: Piano Pedagogy I 2 credits

This course is a study of beginner fundamentals of piano teaching. It includes survey, analysis, classification, and evaluation of beginning piano methods. Principles of studio management and planning are introduced. This course includes observation and supervised teaching in the Piano Laboratory Program, and both individual and group lesson settings. Prerequisite: MUS-377 or Music Department approval.

MUS-428♦: Piano Pedagogy II 2 credits

This course is a study of intermediate/early advanced fundamentals of piano teaching. It includes survey of, analysis, classification, and evaluation of beginning piano methods. Emphasis is also placed on studio management and planning. This course includes observation and supervised teaching in the Piano Laboratory Program, and both individual and group lesson settings. Prerequisite: MUS-427 or Music Department approval.

MUS-451♦: Advanced Choral Conducting 2 credits

This course is a study of advanced techniques of choral conducting. Rehearsal techniques, score reading, artistic interpretation, baton technique, and rehearsal techniques will be explored. Prerequisite: MUS-223.

MUS-451HN♦: Advanced Choral Conducting 2 credits

This course is a study of advanced techniques of choral conducting. Rehearsal techniques, score reading, artistic interpretation, baton technique, and rehearsal techniques will be explored. Prerequisite: MUS-223.

MUS-452♦: Advanced Instrumental Conducting 2 credits

This course is a study of advanced techniques of instrumental conducting. Rehearsal techniques, score reading, artistic interpretation, baton technique, and rehearsal techniques will be explored. Prerequisite: MUS-223 or Music Department approval.

MUS-452HN♦: Advanced Instrumental Conducting 2 credits

This course is a study of advanced techniques of instrumental conducting. Rehearsal techniques, score reading, artistic interpretation, baton technique, and rehearsal techniques will be explored. Prerequisite: MUS-223 or Music Department approval.

MUS-453♦: Advanced Conducting 2 credits

This course is a study of advanced techniques of conducting. Rehearsal techniques, score reading, artistic interpretation, baton technique, and programming will be explored. Prerequisite: MUS-223.

MUS-455♦: Vocal Pedagogy 2 credits

This course is a multimedia exploration of voice science and pedagogy for voice instruction. Students will be required to demonstrate pedagogical application. Prerequisite: MVA-230.

MUS-457♦: Instrumental Pedagogy 2 credits

This course is a study of teaching instrumental music in the private music studio. The instruction is generally at the beginner level. This course includes observation in both individual and group lesson settings. Prerequisite: Advanced Standing or Music Department approval. Prerequisite: Advanced Standing or Music Department approval.

MUS-490♦: Senior Seminar 2 credits

This capstone course provides students an opportunity to develop their skills in an area of interest. Students will complete an independent project under faculty supervision.

Music Applied Voice (MVA)

MVA-119♦: Private Voice Study I 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors. Prerequisites: Music Department approval and placement audition.

MVA-120♦: Private Voice Study Majors I 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: Music Department approval and placement audition.

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | ^ Non-Transferable

MVA-129♦: Private Voice Study II 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MVA-130♦: Private Voice Study Majors II 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MVA-120 or Music Department approval and placement audition.

MVA-219♦: Private Voice Study III 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MVA-220♦: Private Voice Study Majors III 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MVA-130 or Music Department approval and placement audition.

MVA-229♦: Private Voice Study IV 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MVA-230♦: Private Voice Study Majors IV 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MVA-220 or Music Department approval and placement audition.

MVA-319♦: Private Voice Study V 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MVA-320♦: Private Voice Study Majors V 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MVA-230 or Music Department approval and placement audition.

MVA-329♦: Private Voice Study VI 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MVA-330♦: Private Voice Study Majors VI 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MVA-320 or Music Department approval and placement audition.

MVA-390^Ω♦: Junior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's junior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

MVA-419♦: Private Voice Study VII 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MVA-420♦: Private Voice Study Majors VII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MVA-330 or Music Department approval and placement audition.

MVA-429♦: Private Voice Study VIII 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for non-music majors.

MVA-430♦: Private Voice Study Majors VIII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MVA-420 or Music Department approval and placement audition.

MVA-490^Ω♦: Senior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's senior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

Music Voice Class (MVC)

MVC-109♦: Class Voice (Majors) 1 credits

This course is class instruction for students with limited or no previous voice training. Instruction includes the study of vocal technique and is designed to pass Part I of the Vocal Proficiency Examination. The voice proficiency requirements are identified in the music handbook.

MVC-259♦: Class Voice II 1 credits

This course is a continuation of MVC-109. It includes passing Part II of the Voice Proficiency Examination. Prerequisite: MVC-109.

MVC-359♦: Class Voice III 1 credits

This course is a continuation of MVC-259. It includes passing Part III of the Voice Proficiency Examination. Prerequisite: MVC-259.

MVC-459♦: Class Voice IV 1 credits

This course is a continuation of MVC-359. It includes passing Part IV of the Voice Proficiency Examination. Prerequisite: MVC-359.

Woodwind Instruments (MWE)

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

MWE-113♦: Private Applied Instruction-Secondary I 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors. Prerequisites: Music Department approval and placement audition.

MWE-115♦: Private Applied Instruction I 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: Music Department approval and placement audition.

MWE-123♦: Private Applied Instruction-Secondary II 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MWE-125♦: Private Applied Instruction II 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MWE-115 or Music Department approval and placement audition.

MWE-213♦: Private Applied Instruction-Secondary III 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MWE-215♦: Private Applied Instruction III 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MWE-125 or Music Department approval and placement audition.

MWE-223♦: Private Applied Instruction-Secondary IV 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MWE-225♦: Private Applied Instruction IV 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MWE-215 or Music Department approval and placement audition.

MWE-313♦: Private Applied Instruction-Secondary V 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MWE-315♦: Private Applied Instruction V 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MWE-225 or Music Department approval and placement audition.

MWE-323♦: Private Applied Instruction-Secondary VI 1 credits

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for nonmusic majors.

MWE-325♦: Private Applied Instruction VI 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MWE-315 or Music Department approval and placement audition.

MWE-390^Ω♦: Junior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's junior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

MWE-413♦: Private Applied Instruction-Secondary VII 1 credits

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature.

MWE-415♦: Private Applied Instruction VII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MWE-325 or Music Department approval and placement audition.

MWE-423♦: Private Applied Instruction-Secondary VIII 1 credits

This course is the private applied study for music majors in their secondary instrument or area, and/or private applied study for non-music majors.

MWE-425♦: Private Applied Instruction VIII 2 credits

This course is the private applied study required for music majors in their major instrument or area. Prerequisites: MWE-415 or Music Department approval and placement audition.

MWE-490♦: Senior Recital 0 credits

A formal, public recital, sponsored by the music department, in which the student presents a solo recital of a length appropriate to the major. The recital is to be given in the student's senior year. The student must concurrently be enrolled in the appropriate level of private instruction. Co-Requisite: The student must concurrently be enrolled in the appropriate level of private instruction.

Nursing (NRS)

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

NRS-410V♦: Pathophysiology and Nursing Management of Clients' Health 3 credits

This course is designed to enhance the working RN's existing understanding of the pathophysiological processes of disease as they affect clients across the lifespan. The interrelationship of structural and functional reactions of cells and tissues to genetic alterations and injurious agents provide the foundation for comprehending clinical manifestations and treatment protocols. Critical thinking and nursing management are enhanced through the use of case studies that integrate nutritional and pharmacological concepts. The understanding of environmental and biological risk factors provides the nurse with the knowledge to provide health promotion and prevention education.

NRS-427V♦: Concepts in Community and Public Health 3 credits

This course focuses on the community as a large system of people of varying cultures, spiritual values, geographic norms, and economic conditions, all influenced by social-legal-political variables that impact individual and community health. Particular attention is paid to vulnerable subgroups in the community. Emphasis is placed on critical analysis, using epidemiological data and functional health pattern assessments to plan and intervene in areas of health promotion and disease prevention.

NRS-427VN♦: Concepts in Community and Public Health 3 credits

This course focuses on the community as a large system of people of varying cultures, spiritual values, geographic norms, and economic conditions, all influenced by social-legal-political variables that impact individual and community health. Particular attention is paid to vulnerable subgroups in the community. Emphasis is placed on critical analysis, using epidemiological data and functional health pattern assessments to plan and intervene in areas of health promotion and disease prevention.

NRS-428VN: Concepts in Community and Public Health 3 credits

This course focuses on the community as a large system of people of varying cultures, spiritual values, geographic norms, and economic conditions, all influenced by social-legal-political variables that impact individual and community health. Particular attention is paid to vulnerable subgroups in the community. Emphasis is placed on critical analysis, using epidemiological data and functional health pattern assessments to plan and intervene in areas of health promotion and disease prevention.

NRS-429V♦: Family-Centered Health Promotion 3 credits

This course focuses on family theories, health promotion models, cultural diversity, and teaching learning principles. The course emphasizes the family as the client, family FHP health assessments, screenings across the lifespan, communication, community resources, and family education. Appropriate health promotion education is evaluated against evidence-based research and practice.

NRS-429VN♦: Family-Centered Health Promotion 3 credits

This course focuses on family theories, health promotion models, cultural diversity, and teaching learning principles. The course emphasizes the family as the client, family FHP health assessments, screenings across the lifespan, communication, community resources, and family education. Appropriate health promotion education is evaluated against evidence-based research and practice.

NRS-430VΩ: Professional Dynamics 3 credits

This course is a bridge course for the RN who is returning to formal education for the baccalaureate degree in nursing. The course focuses on differentiated nursing practice competencies, nursing conceptual models, professional accountability, integrating spirituality into practice, group dynamics, and critical thinking. The course also emphasizes writing and oral presentation skills.

NRS-433V^: Introduction to Nursing Research 3 credits

This writing intensive course promotes the use of research findings as a basis for improving clinical practice. Quantitative and qualitative research methodologies are presented. Emphasis is on the critical review of research studies and their applications to clinical practice. An overview of evidence-based practice is provided. Prerequisite: HLT-362V.

NRS-434VN♦: Health Assessment 3 credits

This course focuses on methods of health history taking, physical examination skills, documentation, and health promotion strategies. The course emphasizes the individual as the client, health patterns across the lifespan, community resources, and the teaching learning process.

NRS-440V♦: Trends and Issues in Today's Health Care 3 credits

This course explores the impact of numerous professional and societal forces on health care policy and practice. Content includes an analysis of current studies; nursing care policy and position statements; political, environmental, and cultural issues; and changing nursing roles. The study of these issues examines the impact on health care delivery systems in today's society.

NRS-440VN♦: Trends and Issues in Today's Health Care 3 credits

This course explores the impact of numerous professional and societal forces on health care policy and practice. Content includes an analysis of current studies; nursing care policy and position statements; political, environmental, and cultural issues; and changing nursing roles. The study of these issues examines the impact on health care delivery systems in today's society.

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | Ω Non-Transferable

NRS-441V^Ω: Professional Research Project 3 credits

The capstone project is a culmination of the learning experiences while a student in the nursing program. The student will prepare a written proposal for a project whose focus is the resolution of an issue or problem significant to professional nursing practice. The proposal includes a problem description, resolution, implementation, plans, evaluation plans, and proposed dissemination of findings. The professional capstone project proposal needs to reflect synthesis and integration of course content and professional practice. The capstone project is guided by the baccalaureate program student learner outcomes.

NRS-451VN: Nursing Leadership and Management 3 credits

Registered nurses with current licensure have a basic understanding of the role of the professional nurse. This course emphasizes further development of the professional nurse role. Critical management and leadership values, styles, and skills are a major focus. Particular attention is given to the identification of personal leadership styles and values. Importance is placed on development of effective management and leadership skills, with emphasis on effective communication.

NRS-490^{ΔΩ}: Professional Capstone and Practicum 6 credits

This is a writing intensive course. The professional capstone practicum project offers students the opportunity to propose a resolution to an issue or problem significant to nursing practice within a clinical environment. Students identify, design, and propose an evidence-based solution within a health care organization with guidance from faculty and a preceptor in the field. The proposal must reflect synthesis and integration of course content and professional practice. Development of the capstone project is guided by the baccalaureate program student learning outcomes. Practicum/field experience hours: 100. Prerequisites: NRS-430V, NRS-429VN, NRS-434VN, NRS-427VN, NRS-433V, PHI-413V, NRS-451VN, NRS-410V, and NRS-440VN.

NRS-491^Δ: Professional Capstone and Practicum 6 credits

This is a writing intensive course. The professional capstone practicum project offers students the opportunity to propose a resolution to an issue or problem significant to nursing practice within a clinical environment. Students identify, design, and propose an evidence-based solution within a health care organization with guidance from faculty and a preceptor in the field. The proposal must reflect synthesis and integration of course content and professional practice. Development of the capstone project is guided by the baccalaureate program student learning outcomes. Practicum/field experience hours: 100. Prerequisites: NRS-430V, NRS-429VN, NRS-434VN, NRS-427VN, NRS-433V, PHI-413V, NRS-451VN, NRS-410V, and NRS-440VN.

NRS-493^Δ: Professional Capstone and Practicum 6 credits

This is a writing-intensive course. The course combines scholarly activities with clinical practice experiences designed to synthesize learning into the practice environment and impact health outcomes. Students participate in planned, clinical experiences that refine professional competencies at the baccalaureate level and enable students to integrate new knowledge and higher level skills to advance nursing practice. Clinical practice hours will be dedicated to learning objectives in leadership and in community health. The professional capstone project offers students the opportunity to propose a resolution to an issue or problem significant to nursing practice within a clinical environment. Students identify, design, and propose an evidence-based solution within a health care organization with guidance from faculty and a preceptor in the field. The proposal must reflect synthesis and integration of course content and professional practice. Development of the capstone project is guided by the baccalaureate program student learning outcomes. Clinical hours: 100. Combined ; 50 hours in leadership and 50 hours in community health. Prerequisites: NRS-430V, NRS-429VN, NRS-434VN, NRS-428VN, HLT-362V, NRS-433V, PHI-413V, NRS-451VN, NRS-410V, and NRS-440VN.

Nutritional Sciences (NSC)

NSC-150[♦]: Nutrition and Wellness 4 credits

This is an introductory course in general nutrition and wellness, including the definitions of fitness and health, and review of fundamental nutritional principles. This course provides for a basic understanding of nutritional science and applications to food selection and overall health and wellness.

NSC-305: Nutrition across the Lifespan 4 credits

This course examines nutritional requirements and applies the principles of basic nutrition to each stage of the life cycle, with a special emphasis on how growth, development and health status relate to nutrition. It also introduces the role of beliefs, culture, and other factors in nutrition. Prerequisite: NSC-150.

NSC-305HN^Δ: Nutrition across the Lifespan 4 credits

This course examines nutritional requirements and applies the principles of basic nutrition to each stage of the life cycle, with a special emphasis on how growth, development and health status relate to nutrition. It also introduces the role of beliefs, culture, and other factors in nutrition. Prerequisite: NSC-150.

NSC-350: Food Sciences 3 credits

This course explores the scientific principles of food preparation, processing, and preservation; attention to food safety; and ingredient interactions in meal preparation. Prerequisites: CHM-350 and CHM-350L.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

NSC-350L: Food Sciences Lab 1 credits

This course introduces food preparation with a focus on ingredient interactions and the impact of different food preparation methods. The laboratory complements the lecture course and covers food safety, meal planning, and purchasing. Prerequisites: CHM-350 and CHM-350L. Co-Requisite: NSC-350.

NSC-419: Advanced Nutrition 4 credits

This course applies concepts learned in earlier nutrition courses in a comprehensive and practical manner. Examples of covered topics include advanced meal planning, the nutritional needs of special populations, sports nutrition, and advanced applications of nutritional principles and research to solve nutrition-related problems. Prerequisite: NSC-305.

NSC-490^A: Nutrition Research 4 credits

This writing intensive course introduces basic research designs and their applications to nutrition. Examples of possible topics include applied epidemiology, nutrition-related health problems, food production and dissemination, and the issues of sustainability that surround these. Prerequisite: BIO-319.

NSC-495^A: Capstone in Nutrition 4 credits

This writing intensive capstone course requires students to integrate and apply what they have learned in the Nutrition program, as well as understand the ethics of nutritional sciences. For example, to demonstrate understanding of nutritional principles, students in this course develop client plans for individuals of different health statuses. Prerequisites: NSC-419 and NSC-490.

NSC-495HN^{A,†}: Capstone in Nutrition 4 credits

This writing intensive capstone course requires students to integrate and apply what they have learned in the Nutrition program, as well as understand the ethics of nutritional sciences. For example, to demonstrate understanding of nutritional principles, students in this course develop client plans for individuals of different health statuses. Prerequisites: NSC-419 and NSC-490.

Nursing (NSG)

NSG-300: Foundations of Nursing 4 credits

This course introduces the nursing process and focuses on the development of critical thinking and clinical reasoning skills in the application of the nursing process in planning safe, culturally sensitive, client-centered care. Students are introduced to concepts of health and physiologic and psychosocial alterations. The underlying theoretical concepts related to fundamental nursing skills are introduced. Prerequisite: Admission into the nursing program. Co-Requisite: NSG-300C.

NSG-300C: Foundations of Nursing Clinical 2 credits

In this clinical course, students use the nursing process to identify clinical data and assessment findings to plan, prioritize, and implement direct client care in assigned health care settings related to the care of the adult population. Students are expected to integrate principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care. Fundamental nursing skills necessary for providing care are introduced and practiced in laboratory and simulated settings. Clinical hours: 56. Prerequisite: Admission into the nursing program. Co-Requisite: NSG-300.

NSG-300CC: FN Clinical Rotation 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisite: Admission into the nursing program. Co-Requisite: NSG-300.

NSG-300CI: FN Immersive Simulation 0 credits

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisite: Admission into the nursing program. Co-Requisite: NSG-300.

NSG-300HN[‡]: Foundations of Nursing 4 credits

This course introduces the nursing process and focuses on the development of critical thinking and clinical reasoning skills in the application of the nursing process in planning safe, culturally sensitive, client-centered care. Students are introduced to concepts of health and physiologic and psychosocial alterations. The underlying theoretical concepts related to fundamental nursing skills are introduced. Prerequisite: Admission into the nursing program. Co-Requisite: NSG-300C.

NSG-310[♦]: Introduction to Professional Nursing 3 credits

This course introduces the professional standards, regulations, and ethical code that inform the field of nursing. Students learn about scope and standards of practice with particular emphasis on the nurse's role in providing client-centered care as a member of an interdisciplinary health care team. Students also learn skills in therapeutic, interpersonal, and interprofessional communication and examine the relationship of communication and technology to safety and positive client outcomes. Prerequisite: Admission into the nursing program.

^A Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

NSG-310HN^Δ: Introduction to Professional Nursing **3 credits**

This course introduces the professional standards, regulations, and ethical code that inform the field of nursing. Students learn about scope and standards of practice with particular emphasis on the nurse's role in providing client-centered care as a member of an interdisciplinary health care team. Students also learn skills in therapeutic, interpersonal, and interprofessional communication and examine the relationship of communication and technology to safety and positive client outcomes. Prerequisite: Admission into the nursing program.

NSG-316: Health Assessment **4 credits**

In this course, students use the nursing process to systematically collect, validate, and communicate the physiological, psychological, sociocultural, spiritual, lifestyle, and functional assessment data for diverse adult clients. Students demonstrate client-centered interviewing skills and obtaining a health history, along with hands-on assessment techniques through supervised laboratory practice. Prerequisite: Admission into the nursing program.

NSG-318: Introduction to Pharmacology **3 credits**

This course introduces basic principles of pharmacotherapy used in health promotion/maintenance and disease prevention for diverse populations across the life span. Students learn principles of pharmacokinetics, pharmacodynamics, and pharmacogenetics/genomics, and study drug classifications and corresponding mechanisms of action, including pathophysiological effects. Use of the nursing process in developing a comprehensive approach to the clinical application of drug therapy is also discussed. Prerequisite: Admission into the nursing program.

NSG-320: Adult Health Nursing I **5 credits**

This course focuses on nursing care of adult clients. Students demonstrate competency in the advancing role of the professional registered nurse and clinical reasoning to improve client outcomes. Students begin to integrate knowledge of clinical data, pharmacologic concepts, and assessment findings to plan, prioritize, and implement nursing care. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-320C.

NSG-320C: Adult Health Nursing I Clinical **3 credits**

In this clinical course, through use of the nursing process, students begin to integrate knowledge of clinical data, pharmacologic concepts, and assessment findings to plan, prioritize, and implement direct care for adults experiencing acute and chronic health disruptions in a variety of health care settings. Students are expected to integrate the principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care. Medical-surgical nursing skills necessary to providing care are introduced and practiced in laboratory and simulated settings. Clinical hours: 132. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-320.

NSG-320CC: AHN I Clinical Rotation **0 credits**

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-320.

NSG-320CI: AHN I Immersive Simulation **0 credits**

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-320.

NSG-322: Behavioral Health Nursing **3 credits**

In this course, students utilize the nursing process to provide behavioral health care in community and acute inpatient settings for individuals, families, and community groups. Emphasis is placed on primary, secondary, and tertiary levels of behavioral health care, including pharmacotherapy and nursing interventions for clients in crisis and clients with serious and persistent mental illness. Concepts including therapeutic communication, interdisciplinary collaboration, client-centered coping-skills, and affective skills of critical thinking are integrated with biopsychosocial, spiritual, and cultural aspects of behavioral health nursing practice. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-322C.

NSG-322C: Behavioral Health Nursing Clinical **1 credits**

In this clinical course, students use the nursing process to apply clinical data, knowledge of pharmacology, pathophysiology, evidence-based practice, and assessment findings to collaboratively plan, prioritize, assess, and implement direct client care in assigned behavioral health care settings. Students have the opportunity to practice therapeutic communication skills. Students are expected to integrate the principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care. Clinical hours: 36. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-322.

NSG-322CC: BHN Clinical Rotation **0 credits**

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-322.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

NSG-322CI: BHN Immersive Simulation 0 credits

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-322.

NSG-322HN^Δ: Behavioral Health Nursing 3 credits

In this course, students utilize the nursing process to provide behavioral health care in community and acute inpatient settings for individuals, families, and community groups. Emphasis is placed on primary, secondary, and tertiary levels of behavioral health care, including pharmacotherapy and nursing interventions for clients in crisis and clients with serious and persistent mental illness. Concepts including therapeutic communication, interdisciplinary collaboration, client-centered coping-skills, and affective skills of critical thinking are integrated with biopsychosocial, spiritual, and cultural aspects of behavioral health nursing practice. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318. Co-Requisite: NSG-322C.

NSG-324^Δ: Research and Evidence-Based Practice 3 credits

In this writing-intensive course, students are introduced to the research process and methodologies using qualitative and quantitative data. Students examine the processes required to integrate evidence into nursing practice. Emphasis is on evaluation and application of scientific evidence affecting nurse-sensitive quality indicators. Students differentiate types and levels of evidence and identify appropriate sources that inform nursing practice. Strategies for implementation, methods of evaluation, and dissemination of research findings are discussed. This course also expands on informatics technology used to support data, information, and knowledge needs in the delivery of nursing and health care. Prerequisites: NSG-300, NSG-300C, NSG-310, NSG-316, and NSG-318.

NSG-430: Adult Health Nursing II 5 credits

In this course, students synthesize advanced medical-surgical and pharmacologic concepts. Students use the nursing process to manage clients with higher levels of acuity and complex health needs. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-430C.

NSG-430C: Adult Health Nursing Clinical II 2 credits

In this clinical course, students utilize the nursing process to independently plan, prioritize, implement, and evaluate direct client care for adults with complex health needs. Students are expected to integrate the principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care. Advanced medical-surgical nursing skills necessary for providing care are introduced and practiced in laboratory and simulated settings. Clinical hours: 60. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-430.

NSG-430CC: AHN II Clinical Rotation 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-430.

NSG-430CI: AHN II Immersive Simulation 0 credits

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-430.

NSG-432: Nursing Care of the Childbearing Family 3 credits

This course introduces nursing concepts related to women's health, pregnancy, and newborn care. Focus is on health promotion and disease prevention, pharmacologic concepts, ethical and legal aspects, and decision making for childbearing families. Nursing care of the normal and high-risk childbearing family from preconception through the postpartum period is addressed. Emphasis is on promoting positive outcomes during the childbearing phase of family development. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-432C.

NSG-432C: Nursing Care of the Childbearing Family Clinical 1 credits

In this clinical course, students use the nursing process to analyze clinical data, knowledge of pharmacology, pathophysiology, evidence-based practice, and assessment findings to collaboratively plan, prioritize, and implement client care in assigned health care settings related to the childbearing family. Students are expected to integrate the principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care. Obstetric nursing skills necessary for providing care are introduced and practiced in laboratory and simulated settings. Clinical hours: 36. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-432.

NSG-432CC: OB Clinical Rotation 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-432.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

NSG-432CI: NCCF Immersive Simulation 0 credits

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-432.

NSG-434: Nursing Care of the Childrearing Family 3 credits

This course focuses on theories and concepts of growth and development, cultural influences, ethical issues, and physiological responses related to the nursing care of both the sick and well child. Emphasis is placed on teaching and community resources related to the childrearing family from infancy through adolescence. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-434C.

NSG-434C: Nursing Care of the Childrearing Family Clinical 1 credits

In this clinical course, students use the nursing process to analyze clinical data, knowledge of pharmacology, pathophysiology, evidence-based practice, and assessment findings to collaboratively plan, prioritize, and implement client care in assigned health care settings related to the childrearing family. Students are expected to integrate the principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care. Pediatric nursing skills necessary for providing care are introduced and practiced in laboratory and simulated settings. Clinical hours: 48. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-434.

NSG-434CC: Peds Clinical Rotation 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-434.

NSG-434CI: Peds Immersive Simulation 0 credits

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324. Co-Requisite: NSG-434.

NSG-436: Leadership, Ethics, and Policy in Health Care 3 credits

This course explores nursing leadership, nursing's role in policy advocacy and development, and ethical and legal principles that impact nursing and the provision of health care within a complex health care delivery system. Students examine the influence of the nursing profession on policy and regulation, the financial structure of health care systems, and issues related to improving quality and client outcomes within health care organizations using leadership and management concepts. Students apply ethical and legal principles while evaluating the relationship between law and ethics and its impact on diverse individuals, families, and communities. Prerequisites: NSG-320, NSG-320C, NSG-322, NSG-322C, and NSG-324.

NSG-440: Population Health 3 credits

This course focuses on the role of the nurse in population-focused health, examining population-based systems, and community, individual, and family-focused population health practice. Emphasis is on addressing issues of overall health improvement, the broad determinants of health, and the elimination of health disparities among vulnerable populations. Students apply epidemiologic concepts and evidence-based research to the study of disease and develop strategies to promote health and prevent disease in diverse communities and populations with an emphasis on community-based assessment and partnership as well as broader population-focused interventions. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-440C.

NSG-440C: Population Health Clinical 1 credits

In this clinical course, students apply nursing principles in public and population health related to health promotion and disease prevention for diverse populations in a variety of community settings. Students are expected to integrate the principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care for diverse populations. Clinical hours: 40. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-440.

NSG-440CC: PH Clinical Rotation 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-440.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

NSG-440CI: PH Immersive Simulation 0 credits

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-440.

NSG-440HN^Δ: Population Health 3 credits

This course focuses on the role of the nurse in population-focused health, examining population-based systems, and community, individual, and family-focused population health practice. Emphasis is on addressing issues of overall health improvement, the broad determinants of health, and the elimination of health disparities among vulnerable populations. Students apply epidemiologic concepts and evidence-based research to the study of disease and develop strategies to promote health and prevent disease in diverse communities and populations with an emphasis on community-based assessment and partnership as well as broader population-focused interventions. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-440C.

NSG-444: Transition to Practice 4 credits

This course focuses on the reinforcement of medical-surgical concepts and career readiness preparation to support students as they transition into the role of the professional registered nurse. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444C.

NSG-444C: Transition to Practice Group or Residency Clinical 3 credits

In this clinical course, students delegate care and integrate the principles of cultural awareness, quality and safety, and evidence-based practice in providing holistic, client-centered care for multiple clients. Advanced medical-surgical nursing skills necessary for providing care are reinforced and practiced in simulated settings. Clinical hours: 120. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CD1: TTP Group Rotation: Medical/Surgical 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CD2: TTP Group Rotation: Behavioral Health 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CD3: TTP Group Rotation: OB 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CD4: TTP Group Rotation: Pediatrics 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CD5: TTP Group Rotation: Population Health 0 credits

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

NSG-444CD6: TTP Group Rotation: Complex Care **0 credits**

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CD7: TTP Group Rotation: Long-Term Care **0 credits**

This clinical rotation provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CE8: TTP Residency **0 credits**

This residency provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in direct client-care settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice in various clinical environments. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-444CI: TTP Immersive Simulation **0 credits**

This immersive simulation experience provides students with hands-on learning allowing for the integration of skills and knowledge in the care of clients from various social and cultural backgrounds in simulated settings. Students are provided the opportunity to display competencies necessary to provide holistic and safe client-centered care. Students apply knowledge, skills, and attitudes based on current standards of nursing practice. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436. Co-Requisite: NSG-444.

NSG-448^A: Evidence-Based Project Capstone **3 credits**

This writing-intensive capstone provides students a culminating professional experience synthesizing a clinical change project as a means of improving clinical practice and quality of care. This course assists students as they develop into effective change agents and advocates for improvements and quality care. Theories and concepts from liberal arts education, nursing practice, and PICOT principles are included as students progress through the final development and presentation of a clinical change project. Emphasis is placed on applying evidence-based practice in the clinical setting. Prerequisites: NSG-430, NSG-430C, NSG-432, NSG-432C, NSG-434, NSG-434C, and NSG-436.

Nursing (NUR)

NUR-300NH^F: Foundations of Nursing Practice **4 credits**

This course introduces students to the foundations of professional nursing practice and focuses on the development of critical thinking and clinical reasoning skills in the application of the nursing process in planning safe, culturally sensitive, client-centered care. Students are introduced to concepts of health and physiologic and psychosocial alterations. Fundamental nursing skills necessary to providing care are introduced and practiced in the laboratory and simulated settings. Prerequisite: Admission into the nursing program. Co-Requisite: NUR-300CN.

NUR-324^A: Research and Evidence-Based Practice **4 credits**

In this writing-intensive course, students are introduced to the research process and methodologies using qualitative and quantitative data. Students examine the processes required to translate and integrate evidence into nursing practice. Emphasis is on evaluation and application of scientific evidence affecting nurse-sensitive quality indicators. Students differentiate types and levels of evidence and identify appropriate sources that inform nursing practice. Strategies for implementation, methods of evaluation, and dissemination of research findings are discussed. This course also expands on informatics technology used to support data, information, and knowledge needs in the provision and delivery of nursing and health care. Prerequisites: NUR-300, NUR-300C, NUR-315, NUR-316, and NUR-318.

NUR-438HN^F: Population Health **3 credits**

This course focuses on the professional registered nurse's role and responsibilities in public and population health in a variety of community settings. Students gain a broader understanding of wellness promotion and disease prevention, client education, advocacy, ethical issues, epidemiological principles, and global health. Students examine social determinants of health for vulnerable populations along with disaster management and environmental health. Prerequisites: NUR-320, NUR-320C, NUR-322, NUR-322C, and NUR-324. Co-Requisite: NUR-438C.

^A Writing intensive course | [♦] Fulfills General Education requirement | ^F Honors Major Course | ^Ω Non-Transferable

NUR-440HN[‡]: Leadership, Ethics, and Policy in Health Care **4 credits**

This course examines the foundations of health care policy, the financial structure of health care systems, and the regulatory environments that impact nursing practice and client care. Students explore the influence of the nursing profession on policy and regulation and address issues within health care organizations using leadership and management concepts. Emphasis is on integrating qualities of safety, accountability, advocacy, integrity, lifelong learning, clinical reasoning, competence, caring, and compassion towards building confidence as a professional registered nurse. Students also incorporate ethical and legal principles in exploring the relationship between law and ethics and its impact on diverse individuals, families, communities, and populations. Prerequisites: NUR-320, NUR-320C, NUR-322, NUR-322C, and NUR-324.

NUR-502^Ω: Theoretical Foundations for Nursing Roles And Practice **4 credits**

This course examines nursing as a profession and a discipline and the individual nurse's role as a member of the profession. The theoretical foundations for nursing practice and roles are explored and applied. Emphasis is placed on developing scholarly writing and presentation skills. Critical thinking skills are refined as students discuss and synthesize the literature that guides nursing practice with a special emphasis on caring, diversity, and spirituality.

NUR-504: Health Care Research Analysis and Utilization **4 credits**

This course focuses on the critical analysis of nursing and health care research and its application to nursing education, nursing practice, and the delivery of health care services. Emphasis is placed on strategies to access current and relevant data, synthesize the information, and translate new knowledge to practice. Ethical issues in the design and conduct of research are addressed. Prerequisite: NUR-502.

NUR-508: Ethics, Policy, and Finance in the Health Care System **4 credits**

This course utilizes health care policy as a framework to analyze how health is defined and health care is designed and delivered in the United States and around the world. Emphasis is placed on issues of cost, quality, access, disparities, and finance. The various roles of the master's prepared nurse in the health care system are explored. Prerequisite: NUR-504.

NUR-513^Ω: Introduction to Advanced Registered Nursing **4 credits**

This course examines nursing theory and the role of ethics for advanced registered nurses within the Christian worldview and through a leadership perspective focused on improving health care outcomes. Students explore the moral/ethical responsibilities and legal and regulatory obligations of advanced registered nurses in health promotion and disease prevention. Students also review evidence-based practice (EBP) literature and the research process with application to their program of study and learn to navigate scholarly EBP literature, resources, and guidelines.

NUR-514: Organizational Leadership and Informatics **4 credits**

This course examines the role of leadership, organizational science, policy, and informatics in supporting safe, high quality, cost-effective patient care within interprofessional, dynamic health care environments. Students explore various organizational relationships within health care systems and prepare to participate in the design of cost-effective, innovative models of care delivery and practice change proposals. Professional leadership theories and how they shape the nurse leader in such things as collaboration, conflict resolution, decision making, and negotiation are introduced. Students discuss change management theories and evaluate the ethical, social, legal, economic, and political implications of practice change and health care informatics along with strategies for managing human, fiscal, and health care resources in a variety of organizational systems. Students also examine the uses of patient care, information system, and communication technologies and discuss the design, implementation, and evaluation of electronic health record systems and clinical decision support systems.

NUR-550: Translational Research and Population Health Management **4 credits**

In this course, students examine the process of scientific inquiry, knowledge generation, utilization, and dissemination of evidence into advanced nursing practice in order to propose quality improvement initiatives that advance the delivery of safe, high-quality care for patient populations. Students critically evaluate evidence, including scientific findings from the biopsychosocial fields, epidemiology, biostatistics, genetics, and genomics, and apply levels of evidence and theoretical frameworks to design culturally appropriate clinical prevention interventions and population-based care that reduce risks, prevent disease, and promote health and well-being. Students also consider strategies to evaluate health policy and advocacy issues, the state of health care delivery, patient-centered care, and ethical principles related to health beliefs, health promotion, and risk reduction for diverse populations. Students apply these strategies to work towards recognizing gaps in nursing and health care knowledge, identifying potential solutions or innovations for those gaps, planning and implementing practice changes, and evaluating the outcomes in order to improve practice. Prerequisite: NUR-513.

NUR-590^Ω: Evidence-Based Practice Project **4 credits**

This course provides an opportunity for students to complete their evidence-based practice (EBP) project proposal addressing a problem, issue, or concern in their specialty area of professional practice. Students previously identified a problem amenable to a research-based intervention and searched the literature. In this course, students propose a solution, explore implementation considerations and various evaluation methodologies, complete the project proposal by developing a plan to implement the solution into the intended practice area, and design an evaluation plan that assesses the EBP project proposal's intended outcome(s). Prerequisite: NUR-550.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω Non-Transferable

NUR-621: Principles of Health Care Financial Management 4 credits

In this course, students study principles of health care financial management and the role of fiscal responsibility within health care organizations. Along with an overview of operational budgets, students delve into the key aspects of the economic drivers and financial requirements impacting organizations, including the financial demands and implications of specific health care delivery models, efficient staffing models, and the management of operational expenses. Students examine the challenges of aligning key financial performance indicators with safety and quality measures as required in the evolving health care industry.

NUR-630: Performance Improvement and Quality in Health Care 4 credits

This course examines models of performance and quality improvement in health care. Students differentiate measures of quality and learn to apply industry standard tools and process improvement methodology to enhance safety and positively impact patient outcomes and financial performance.

NUR-631: Advanced Physiology and Pathophysiology 4 credits

This course focuses on advanced physiology and pathophysiology principles. This course is used to guide the advanced nursing practice student in understanding normal function and interpreting changes in normal function that result in symptoms and diagnostic markers indicative of illness. Emphasis is placed on the following systems: cellular environment and inflammatory changes; fluids, electrolytes and acid-base balance; genetics, genetic diseases, and the role of the environment; stress, disease, and the development of neoplasms; hematology and alterations in immunity. In addition, the physiology and pathophysiology of the endocrine, pulmonary, renal, digestive and integumentary, cardiovascular and lymphatic, musculoskeletal, reproductive, and neurological systems, including mood disorders, are addressed. Prerequisite: Admission to the graduate nursing program or college approval.

NUR-634: Advanced Health Assessment and Diagnostic Reasoning With Skills Lab 4 credits

This course builds upon the student's undergraduate and clinical assessment skills, offering advanced health assessment content to provide the foundation for the advanced practice nursing role. This course addresses the completion and interpretation of a head-to-toe assessment in addition to focused assessments for chief complaints that include physical, psychosocial, spiritual, risk, and functional assessments in diverse populations and across age groups. Students learn a systematic method of diagnostic reasoning and clinical decision making to establish differential diagnoses. Prerequisites: NUR-631, and either NUR-632, NUR-633, or NUR-635.

NUR-635: Advanced Pharmacology 4 credits

This course focuses on the basic concepts and principles of pharmacokinetics and pharmacodynamics and their practical implication in clinical practice. This course also places an emphasis on the strong influence of physiological variables (age, ethnicity, or pregnancy) and pathological conditions (hepatic or renal insufficiency, cardiac dysfunction) on drugs' pharmacological response. An in-depth understanding of the relationship between patient's physiological/pathological variables and pharmacodynamics/pharmacokinetics can provide additional insight for practitioners in predicting potential drug interactions, and thus will provide additional guidance in prescribing strategies. This course also includes clinical pharmacokinetics and pharmacodynamics; clinical toxicology; and pathology and pharmacotherapy of cardiovascular, psychiatric, endocrine, respiratory, gastrointestinal, bone and joint, infectious, reproductive, and dermatological disorders. Prerequisite: NUR-631.

NUR-636^Q: ACNP-AG Practicum I 4 credits

This course focuses on integration of adult-gerontology acute care nurse practitioner didactic learning competencies with application to clinical competencies for adult-gerontology populations seen in acute care settings. Clinical hours: 150. Prerequisites: NUR-631, NUR-633, and NUR-634. Co-requisite: NUR-636.

NUR-636CA: ACNP-AG Practicum I: Skills Lab 0 credits

This skills lab provides students with the opportunity to learn, review, practice, and integrate the competencies necessary for the care of adult-gerontology populations within acute care settings. Prerequisites: NUR-631, NUR-633, and NUR-634.

NUR-637^Q: ACNP-AG Practicum II 4 credits

This preceptored practicum experience provides comprehensive health care to complex, acute, and critically ill adult-gerontology and frail elderly patients. This course builds upon prior learning. Clinical practice affords students the opportunity to refine their clinical decision-making skills in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of acute and chronically ill adult-gerontology patients. Clinical experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community, and prepare the adult-gerontology acute care nurse practitioner (ACNP-AG) in the diagnosis and management of acute and life-threatening health problems. Clinical hours: 200. Prerequisites: NUR-636 and NUR-636C. Co-requisite: NUR-637.

NUR-638^Q: ACNP-AG Didactic III 4 credits

This course continues the focus on evidenced-based theory and research related to care during acute, chronic, and exacerbated illnesses. Students continue to build on prior knowledge and synthesize data from a variety of health resources related to the care of the acutely ill patient. Utilizing a systems-framework, students continue developing appropriate clinical judgment and decision-making skills regarding appropriate recommendations and treatments related to alterations in different systems as they develop an evidence-based plan of care for adult-gerontology patients. Prerequisites: NUR-637 and NUR-637C. Co-requisite: NUR-638C.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Q Non-Transferable

NUR-638C^Ω: ACNP-AG Practicum III 4 credits

This culminating, preceptored, practicum experience continues the development of knowledge, skills, and abilities in the provision of health care to complex, acute, and critically ill adult-gerontology and frail elderly patients. This course builds upon prior learning. Clinical practice affords students the opportunity to refine their clinical decision-making skills in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of acute and chronically ill adult-gerontology patients. Clinical experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community, and prepare the adult-gerontology acute care nurse practitioner (ACNP-AG) in the diagnosis and management of chronic, exacerbated, acute, and life-threatening health problems. Clinical hours: 200. Prerequisites: NUR-637 and NUR-637C. Co-Requisite: NUR-638.

NUR-641E: Advanced Pathophysiology and Pharmacology for Nurse Educators 4 credits

This course focuses on advanced physiology, pathophysiology, and pharmacologic principles. This course will guide the Nursing Education student in interpreting changes in normal function that result in symptoms indicative of illness and the effects of select pharmacologic substances on that process. Evidence-based research provides the basis for determining the safe and appropriate utilization of medications and herbal therapies on human function. Appropriate education for various prescribed pharmacologic agents is incorporated.

NUR-643E: Advanced Health Assessment for Nurse Educators 4 credits

This course builds upon students' previous health assessment knowledge offering advanced health assessment content to provide the foundation for the advanced professional nursing role of the nurse educator. This course emphasizes knowledge of health assessment, including physical, psychosocial, and spiritual health assessment; risk assessment; and functional assessment in diverse populations in the promotion of health and prevention of disease. Topics, such as effective communication and client teaching/counseling to elicit patients' interpretation of their health status and perceived barriers, are incorporated throughout the course to maintain a nursing focus on patient responses to illness or the threat of illness. This course incorporates the completion and interpretation of a head-to-toe assessment along with emphasis on effective documentation and health recordkeeping. Prerequisite: NUR-641E.

NUR-645E: Advanced Health Assessment for Nurse Educators 4 credits

This course builds upon the student's previous health assessment knowledge offering more advanced health assessment content to provide the foundation for the advanced-professional nursing role of the nurse educator. This course emphasizes knowledge of health assessment, including physical, psychosocial, spiritual health assessment, risk assessment, and functional assessment in diverse populations in the promotion of health and prevention of disease. To maintain a nursing focus on patient responses to health, illness, or the threat of illness the nurse must exhibit effective communication and client teaching, which is incorporated throughout the course. The importance of effective documentation and health recordkeeping is included. Prerequisite: NUR-641E.

NUR-646E: Nursing Education Seminar I 4 credits

This course prepares nurse educators to deliver instruction within clinical, professional, and academic settings with specific emphasis on effective methods of facilitating learning and fostering critical thinking skills in diverse student populations. Students apply instructional strategies and methods grounded in evidence-based practice and learning theory and engage in the selection of appropriate strategies to facilitate learning. Students also consider the effective integration of technology and simulation into teaching practice. Students complete 50 direct care practicum hours to integrate advanced nursing knowledge and skills into practice. Practicum/field experience hours: 50. Prerequisite: NUR-643E.

NUR-647E: Nursing Education Seminar I 4 credits

This course examines professional standards as a foundation for curriculum design in nursing education in all settings. It explores the nature of traditional academic education and nontraditional academic education, as well as continuing nursing education. This course also focuses on theories of teaching/learning, traditional and alternative instructional strategies, and nursing education in the classroom and clinical setting. The course incorporates the development of curriculum frameworks and learning activities for adult learners from diverse backgrounds. Strategies to enhance critical thinking are included.

NUR-648E: Nursing Education Seminar II 4 credits

In this course, students learn to contribute to the development of nursing curricula, focusing on different phases of the curriculum creation and improvement processes. Students examine methods of curriculum design, assessment of learning outcomes, and best practices for curriculum development, including aligning curriculum to professional standards, writing learning objectives, creating formative and summative assessments, and using data to improve student learning outcomes. Prerequisite: NUR-646E.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

NUR-649E: Nursing Education Seminar II 4 credits

This course incorporates technology into the educational process from the use of personal technology to institutional technology. Students have the opportunity to develop (or convert) educational programs to be delivered in an online format. Principles of curriculum development, teaching/learning theories, and implementation of evaluation strategies will be modified to the online learning environment. This course also examines professional regulatory and accreditation standards as an evaluation framework for curriculum design in nursing education in all settings. Strategies to assess learning are included from the assignment evaluation to the program evaluation based on outcomes. Prerequisite: NUR-647E.

NUR-665E^Δ: Nursing Education Practicum 4 credits

This is a culminating practicum experience completed with a nurse educator preceptor in a selected setting. This clinical practicum affords students the opportunity to refine educational expertise in their selected areas of interest (e.g., assessment of learning needs, program/curriculum planning, implementation, and assessment/evaluation in either a traditional or nontraditional setting). This course offers opportunities for students to begin integrating the role of the nurse educator into their professional behaviors. Practicum/field experience hours: 150. Prerequisite: NUR-648E or NUR-649E. This course may be taken concurrently with NUR-699.

NUR-670^Δ: Leadership Health Care Organizations Practicum 4 credits

This course provides students the opportunity to integrate what they have learned in the program in a practicum experience related to nursing leadership. Students are expected to integrate nursing knowledge and advanced critical-thinking and problem-solving skills in the development of a comprehensive project grounded in contemporary nursing leadership theory and practice. Students develop projects based on their interests and practicum placement that can incorporate a range of leadership issues, such as quality and performance improvement, mentorship and coaching, interdisciplinary relationships and collaboration, and staff development. Practicum/field experience hours: 150. Prerequisite: Successful completion of all previous coursework in the program.

NUR-674: Leadership in Health Care Systems Practicum 4 credits

This course provides students the opportunity to integrate what they have learned in the program in a practicum experience related to nursing leadership. Students are expected to integrate nursing knowledge and advanced critical-thinking and problem-solving skills in the development of a comprehensive project grounded in contemporary nursing leadership theory and practice. Students develop projects based on their interests and practicum placement that can incorporate a range of leadership issues, such as quality and performance improvement, mentorship and coaching, interdisciplinary relationships and collaboration, and staff development. Practicum/field experience hours: 150. Prerequisite: Successful completion of all previous coursework in the program.

NUR-690: Nursing Informatics Practicum 4 credits

This course provides students the opportunity to integrate what they have learned in the program in a practicum experience related to nursing informatics. Students are expected to integrate nursing knowledge, leadership, and advanced critical-thinking and problem-solving skills in the development of a comprehensive and professional project plan and solution that are grounded in current health care informatics research and methods. Practicum/field experience hours: 200. Prerequisite: Successful completion of all courses in the program of study.

NUR-699^Δ: Evidence-Based Practice Project 4 credits

This course provides an opportunity for students to develop an evidence-based practice project proposal that addresses a problem, issue, or concern in professional practice. Students identify a problem amenable to research-based intervention; search literature; propose a solution; and develop a plan to implement the solution, evaluate its outcome(s), and disseminate the findings. Problems identified are those that are appropriate to students' specialty tracks: nursing leadership, nursing education, nursing public health, adult clinical nurse specialist, acute care nurse practitioner, and family nurse practitioner. Prerequisite: NUR-508.

Organizational Growth and Sales (OGS)

OGS-600: Business Model Development 4 credits

This course introduces a business model development framework for identifying opportunities for organizational growth through innovation development and sales. Students are introduced to needs assessment techniques and marketing and sales analytics in order to apply problem solving strategies to identify, analyze, and solve problems via commercialization of innovative products, services, or business processes.

OGS-605: Customer Segmentation and Analysis 4 credits

Students will collect and analyze consumer data to identify customer segments for the commercialization of innovations. Students will use methods of consumer behavior and market analysis to establish the viability of an innovation and competitive advantage within a target market. Prerequisite: OGS-600.

OGS-610: Finance and Revenue 4 credits

Students will assess the financial viability of a business model through identifying revenue streams generated via commercialization of products, services, or business processes. There is specific emphasis on pricing, costs of product development and distribution, and business model cost structure. Prerequisites: FIN-504 and OGS-605.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

OGS-615: Marketing and Sales Management 4 credits

This course focuses on identifying, analyzing, and managing marketing and sales channels to drive product sales or service delivery. Students examine customer needs analysis, sales analytics, the sales cycle, and web-based marketing and sales strategies. Prerequisites: SYM-506 and OGS-605.

OGS-620: Funding Organizational Growth 4 credits

This course is an overview of how to fund ventures, innovations, and organizational growth strategies. Students research internal and external sources of funding and learn strategies for pitching proposals for raising capital to various stakeholders. Prerequisites: OGS-605 and OGS-610.

OGS-625: Infrastructure and Operations 4 credits

This course focuses on scaling up operations and infrastructure to support the growth of sales and services. Students examine legal and licensing issues related to marketing and sales, managing staffing and resources, and key partnerships. Prerequisites: ACC-502, FIN-504, SYM-506, and OGS-605.

OGS-630: Sustaining Organizational Growth 4 credits

This course focuses on establishing an organizational culture that fosters the creativity and innovation necessary to drive continual product and service development and sales in today's fast-changing business market. Students are provided with skills to lead organizational growth with an emphasis on collaboration, sales force design, business model management, and ethics. Prerequisite: OGS-605.

OGS-635: Launching Growth and Sales Models 4 credits

This capstone course requires students to complete and implement their business models and finalize their pitch to selected stakeholders. Students validate their business plans using sales and marketing analytics to prove the viability of their business models. Prerequisites: OGS-600, OGS-605, OGS-610, OGS-615, OGS-620, OGS-625 and OGS-630.

Organizational Development (ORG)

ORG-805: The Nature and Dynamics of Organizations 3 credits

This course provides a broad overview of the major theoretical frameworks of organizational theory and organizational behavior. Topics include organizational structure, culture, organizational design and effectiveness, learning organizations, motivation, communication, and decision making.

ORG-807: Stakeholders: Roles in Organizations 3 credits

This course examines the roles of stakeholders in a variety of organizational structures and discusses how the type of organization may affect the role of the stakeholder. Learners explore the stakeholder's role in sustaining organizational effectiveness. Prerequisite: RES-850.

ORG-810: Leading the New Organization 3 credits

Leadership styles and organizational challenges faced by 21st century leaders are largely unparalleled and radically different from what we have known. A major contributory factor is the rate of change in the environment, and there are no signs of abating. Leadership styles and organizational methods developed for use under stable conditions are no longer as effective; hence, there have emerged different and newer ways of organizing, and a resultant revolution and redefinition of the competencies, skills, and abilities needed for successful leadership in the new era.

ORG-812: Organizational Theory, Structure, and Process 3 credits

This course examines organizational structure and its influence on organizational effectiveness and success. Learners evaluate organizational structure and explore methods for modifying structures. Open-systems theory is discussed. Research skills from RES-850 and ethical considerations are applied in the context of the course topics. Prerequisite: RES-850.

ORG-815: Understanding Toxic Leadership 3 credits

This course analyzes why we are attracted to leaders who do not have the best interests of their followers (or organizations) at heart. These leaders often display a charisma and style that mask their real intentions, which are ultimately about creating dependency and promoting their own careers and agendas. The consequences of this dysfunctional leadership style can be devastating to both the organization and its stakeholders.

ORG-817: Systems Thinking: Building Organizations That Last 3 credits

This course examines the shift from a traditional organizational structure to a learning organization. It looks at the unintended consequences of leadership decisions in the context of leading innovation. Prerequisite: RES-861.

ORG-820: Organization Governance and Accountability 3 credits

This course analyses the reasons for the growing importance of organizational governance and accountability in both for-profit and not-for-profit organizations. Technology (Web 2.0), recent ethical scandals, financial debacles, and globalization have shifted the paradigm of governance. This course covers the new ways to build organizational governance and accountability.

ORG-822: Individual Differences and Organizational Outcomes 3 credits

This course explores the use of aggregated data to study the relationship between individual differences and organizational outcomes. Role differences in decision-making teams are examined to determine how to best leverage these differences for overall organizational effectiveness. Prerequisite: RES-861.

ORG-825: Leading Value-Driven Organizations 3 credits

This course examines the rise of the value-driven organization, where the workplace is defined as something more than just a business contract between employer and employee. The phenomena of putting meaning into work and how this can support a responsive and adaptive organizational culture while driving competitive advantage is explored.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

ORG-827: Strategic Decision Making 3 credits

The course analyzes decision-making paradigms and strategies through the lens of critical incident analysis, cross-cultural decision making, and collective leadership. Alignment of strategy, vision, and decisions is discussed.

Counselor Education and Supervision (PCE)

PCE-801: Ethics, Laws, and Multicultural Issues 3 credits

Learners in this course explore ethics and morality with targeted focus on the relationship of ethics to morality, values, folkways, norms, cultures, worldview, and theoretical orientation. Learners also explore the differentiation of classroom and advocacy ethics from treatment ethics.

PCE-802: Pedagogy of Counselor Education and Models of Supervision 3 credits

Beginning from a foundation of educational theory and philosophy, the course then explores philosophy, models, and strategies of supervision. Specific concepts related to technology and consultation are also addressed.

PCE-803: Advanced Integrated Theories and Practices 3 credits

In this course, learners employ both traditional and culturally derived theories to explore how their personal worldviews affect and integrate with their theoretical orientations and the manners in which they interact with clientele and structure interventions.

PCE-804: Leadership and Social Justice 3 credits

This course provides counselor educators with the knowledge to be effective in their roles as leaders and advocates. This course addresses the social justice concerns with which counselor educators may become involved while fulfilling the advocacy role.

PCE-830: Advanced Family Dynamics and Systems 3 credits

The course enhances learners' previous experience with counseling in the area of family dynamics and systems by exploring associated theories and considering relevant applications. Contemporary issues in this field are also addressed.

PCE-832: Advanced Group Dynamics and Processes 3 credits

The course explores the theoretical and practical aspects of group dynamics and processes. Also considered are the related ethical concerns of group counseling.

PCE-834: Special Topics in Counseling Education and Supervision 3 credits

In practice, those serving in the roles of counselor educators must address a wide variety of issues. This course, then, addresses topics of contemporary significance in professional counseling.

PCE-836: Integrated Models of Assessment, Diagnosis, and Treatment 3 credits

This course will instruct future counselor educators in the principles of psychometric theory and the standards of assessment. The course will also address the teaching and supervision of the use of psychological testing instruments and their relationship in the best practice flow from assessment through treatment planning.

PCE-885: Developing the Research Proposal 3 credits

In this course, learners formalize their research proposal specific to their topic. Emphasis is placed on fully developing Chapter 1 and incorporating Chapters 2 and 3 (drafts) from previous research courses. This proposal becomes the first three chapters of the dissertation upon approval of the final draft by the College of Doctoral Studies.

PCE-905: Counselor Education and Supervision Practicum 2 credits

This advanced Practicum course provides opportunities for learners to engage in the supervised practical application of previously studied theory. It allows for the demonstration of their counseling/consulting skills under close supervision in a laboratory setting. The nature of the doctoral-level practicum experience is to be determined in consultation with program faculty and/or doctoral committee. Documentation of a minimum requirement of 100 hours of counseling-related activities, which include 40 direct contact hours, is submitted directly to the college's office of field experience. Practicum/field experience hours: 100. Prerequisites: PCE-801, PCE-802, PCE-803, and PCE-804.

PCE-910: Counselor Education and Supervision Internship I 3 credits

Learners are required to complete doctoral-level counseling internships that total a minimum of 600 clock hours. The 600 hours must include supervised experiences in at least three of the five doctoral core areas (counseling, teaching, supervision, research and scholarship, leadership and advocacy). If doctoral students have had limited clinical counseling experiences prior to beginning their doctoral work, they may also be required to complete hours in a clinical setting to gain more counseling experience. The 600 credit hours will be assigned at the discretion of the doctoral committee and the student based on experience and training. Practicum/field experience hours: 300. Prerequisite: PCE-905.

PCE-911: Counselor Education and Supervision Internship 2 3 credits

Learners are required to complete doctoral-level counseling internships that total a minimum of 600 clock hours. The 600 hours must include supervised experiences in at least three of the five doctoral core areas (counseling, teaching, supervision, research and scholarship, leadership and advocacy). If doctoral students have had limited clinical counseling experiences prior to beginning their doctoral work, they may also be required to complete hours in a clinical setting to gain more counseling experience. The 600 credit hours will be assigned at the discretion of the doctoral committee and the student based on experience and training. Practicum/field experience hours: 300. Prerequisite: PCE-910.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCE-912: Internship Continuation I 1 credits

This course emphasizes the completion of the required internship hours. Learners continue to work directly at their approved internship site. Prerequisite: PCE-911.

PCE-913: Internship Continuation II 1 credits

This course emphasizes the completion of the required internship hours. Learners continue to work directly at their approved internship site. Prerequisite: PCE-912.

PCE-955: Dissertation I 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design independent research under the guidance of the dissertation committee. Prerequisite: PCE-885.

PCE-960: Dissertation II 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: PCE-955.

PCE-965: Dissertation III 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: PCE-960.

PCE-966: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PCE-965.

PCE-967: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PCE-966.

PCE-968: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PCE-967.

PCE-969: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PCE-968.

PCE-970: Research Continuation V 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PCE-969.

PCE-975: Dissertation Research Continuation 0 credits

This course emphasizes the finalization of the dissertation and provides learners guidance for finding the appropriate venues and approaches in publishing their research findings. This will include the final steps necessary in pulling together what might have been earlier versions of chapters 1, 2, and 3, as well as the proofing and dissertation editing strategies that are required and the steps scholars can take to make sure their results are, in fact, shared with other scholars. This includes an exploration of writing research articles, preparing to present scholarly papers, as well as other publication venues. Prerequisite: PCE-970.

Professional Counseling (PCN)

PCN-100: Foundations of Addiction and Substance Use Disorders 4 credits

This course provides foundational knowledge regarding addiction and substance use disorders. Topics studied include biopsychosocial dynamics; stages, processes, and impact of addiction and substance use; and the role of the addiction professional in prevention, intervention, relapse prevention, and aftercare. In addition, the course provides overviews of the substance abuse counselor's code of ethics, HIPAA, and legal issues involved in counseling.

PCN-100XV: Foundations of Addiction and Substance Use Disorders 4 credits

This course provides foundational knowledge regarding addiction and substance use disorders. Topics studied include biopsychosocial dynamics; stages, processes, and impact of addiction and substance use; and the role of the addiction professional in prevention, intervention, relapse prevention, and aftercare. In addition, the course provides overviews of the substance abuse counselor's code of ethics, HIPAA, and legal issues involved in counseling.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-107: Introduction to Counseling Theories 4 credits

This course provides foundational knowledge in theoretical approaches to counseling. Theoretical models studied include psychodynamic, existential, Gestalt, person-centered, cognitive and behavioral therapy, family systems, and narrative- and solution-focused therapies.

PCN-107XV: Introduction to Counseling Theories 4 credits

This course provides foundational knowledge in theoretical approaches to counseling. Theoretical models studied include psychodynamic, existential, Gestalt, person-centered, cognitive and behavioral therapy, family systems, and narrative- and solution-focused therapies.

PCN-150: Psychopharmacology in Treatment of Addiction and Substance Use Disorders 4 credits

This course provides a foundational understanding of the biological and psychological components of substance use disorders, addiction and treatment, and application to the client with co-occurring disorders. Students gain foundational knowledge in the principles of pharmacology, anatomy, and physiology as they apply to the major classes of medications. The course also focuses on current drugs used in the treatment of addiction and substance use disorders. Prerequisites: PCN-100 and PCN-107.

PCN-153: Co-Occurring Disorders and HIV/AIDS 4 credits

This course provides foundational knowledge regarding the treatment of addiction/substance use disorders and a comorbid psychiatric disorder. Students learn about origins of, methods of transmission for, and myths regarding HIV/AIDS, and treatment issues and prevention strategies for the HIV-positive or AIDS client. Prerequisites: PCN-100 and PCN-107.

PCN-158: Multicultural Counseling in a Diverse Society 4 credits

This course focuses on cultural sensitivity and cultural competence as they relate to the development and use of treatment plans designed for clients from diverse populations. Students learn the importance of being knowledgeable of the values and belief systems of diverse populations as well as issues of social justice when examining incidences of drug use among these groups and implementing individual treatment plans. Prerequisites: PCN-100 and PCN-107.

PCN-162: Grp Interventions & Comm Resources for Addiction & Substance Use Disorders 4 credits

This course provides foundational knowledge in the study of group dynamics, stages, and processes. Students learn the importance of screening, intervention, and leadership styles in effective group interventions. Self-help groups and community resources are explored. Prerequisites: PCN-100 and PCN-107.

PCN-255: Case Management and Crisis Intervention Skills for Addiction and Substance Use Disorders 4 credits

This course provides foundational knowledge on stages of change, interviewing techniques, screening and assessment, report writing, record keeping, treatment planning, and case management. In addition, students develop knowledge and skill in crisis intervention in preparation for working with clients and families with addiction or substance use disorders. Prerequisites: PCN-100 and PCN-107.

PCN-265: Relapse Prevention in the Treatment of Addiction and Substance Use Disorders 4 credits

This course focuses on relapse prevention. Identifying potential triggers for relapse and developing relapse prevention plans are explored. Students are provided with strategies for connecting their clients with community resources. Prerequisites: PCN-100 and PCN-107.

PCN-275: Family Dynamics & Comm Ed- Treatment of Addiction & Substance Use Disorders 4 credits

This course focuses on understanding the family dynamics of addiction. In addition, students learn the importance of working with community and prevention programs in addressing addiction and substance use disorders on a broader level. Skill in presenting educational topics pertaining to addiction and substance use disorders are developed. Prerequisites: PCN-100 and PCN-107.

PCN-303: Professional Readiness: Legal, Ethical, Personal and Professional Responsibilities in Counseling 4 credits

This course investigates legal practice and regulations, ethical reasoning, and ethical frameworks as they are applied to the professional practice of counseling. An awareness of one's own values and performance measures related to counseling standards, professional development, personal well-being, professional practice, educational advancement, and professional codes of ethics is explored.

PCN-306: Culture and Diversity in Counseling Service and Practice 4 credits

This course examines the impact of cultural diversity on counseling, encourages the acknowledgement of diverse biases and beliefs, and provides an opportunity for students to demonstrate an appreciation of the contributions of diverse populations. Special attention is given to the treatment of diverse populations, including the poor, the mentally ill, the developmentally disabled, the traumatized or abused, the elderly, and persons with HIV/AIDS. Prerequisite: PCN-303.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-308: Group Counseling and Community Education 4 credits

This course is an introduction to the theory and dynamics of group interaction, including psycho-educational, support, and therapeutic context. The various stages and processes of group development are studied using both a conceptual and experimental approach. The course is intended to assist persons who will function as leaders in a variety of small group situations. Support and self-help groups are covered along with the ethical issues unique to group settings.

PCN-309: Case Management and Interventions in Counseling 4 credits

This course presents models and theories of case management, intake assessment, service planning and coordination, monitoring, documentation and use of technology, and termination of services. A continuum of interventions (i.e., prevention, treatment, maintenance, and aftercare) is addressed within the context of a spectrum of service settings and ethical and culturally appropriate responses. The course also presents a comprehensive introduction to crisis intervention. Models for assessing and responding to crises are presented. Topics such as medical and psychological traumas, post-traumatic stress disorder, and professional burnout are part of the curriculum. Special emphasis is given to disaster psychology, natural disasters, terrorism, school violence, and suicidology.

PCN-315: Medical and Physiological Aspects of Chemical Dependence and Substance Abuse for Counselors 4 credits

This course introduces the student to the relative aspects of anatomy, physiology, pharmacology, and diseases related to substance abuse and chemical dependency. Topics include examination of the major classes of psychoactive drugs, including those commonly subject to abuse, differences between psychoactive and psychotropic drugs, and identification of mental disorders that necessitate the need for psychotropics. The course also covers side effects of psychotropics; the mechanisms of antidepressants, neuroleptics, and antimanic drugs; and the pros and cons of adjunctive psychotherapies, including the addictive properties of some classes of prescribed medications.

PCN-360: Dom. Violence, Child, Elder Abuse- Fam w/Addiction & Substance Use Disorders 4 credits

This course focuses on the legal and ethical responsibilities involved when child abuse, abuse of the elderly, and domestic or family violence has been reported. Understanding the dynamics of working with cases of family violence and domestic partner abuse are explored.

PCN-365: Advanced Counseling Theories- Addiction & Substance Use Disorder Counselors 4 credits

This course provides advanced study in the application of cognitive and behavioral theory, rational emotive behavioral theory, family systems theory, solution-focused therapy, and postmodern theories. Newly developed research-based theories are also discussed. In addition, this course provides advanced application of motivational interviewing techniques. Prerequisites: PCN-100 and PCN-107.

PCN-365HN⁴: Advanced Counseling Theories for Addiction and Substance Use Disorder Couns 4 credits

This course provides advanced study in the application of cognitive and behavioral theory, rational emotive behavioral theory, family systems theory, solution-focused therapy, and EMDR. Newly developed research-based theories are also discussed. In addition, this course provides advanced application of motivational interviewing techniques. Prerequisites: PCN-100 and PCN-107.

PCN-370^A: Psychopathology and Advanced Treatment Issues for Special Populations With Addiction and Substance Use Disorders 4 credits

This writing-intensive course focuses on substance use disorders, diagnosis, assessment, and treatment as they apply to mental health disorders and special populations. Prerequisites: PCN-100 and PCN-107.

PCN-370HN^A: Psychopath & Adv. Treatment-Spec Pop w/Addiction & Substance Use Disorders 4 credits

This writing-intensive course focuses on substance use disorders, diagnosis, assessment, and treatment as they apply to mental health disorders and special populations. Prerequisites: PCN-100 and PCN-107.

PCN-373: Spirituality and Addiction 4 credits

This course focuses on the relationship between spirituality and the development and treatment of addictions. It also covers legal, ethical, and spiritual aspects of death, dying, and end of life issues. The course addresses grief and loss as it relates to addiction, death, and dying. Prerequisites: PCN-100 and PCN-107.

PCN-404^A: Professional, Legal, and Ethical Issues for Addiction and Substance Use Disorder Counselors 4 credits

This writing intensive course provides an advanced study in the application of ethical guidelines, legal standards, HIPAA, and professional responsibilities in the treatment of addiction and substance use disorders. Topics include attitudes, skills, and behaviors of addiction and substance use disorder counselors; prevention of burnout and compassion fatigue; the importance of obtaining supervision and consultation; and licensure and certification. Prerequisites: PCN-100 and PCN-107.

PCN-404HN⁴: Professional, Legal, and Ethical Issues for Addiction and Substance Use Dis 4 credits

This writing intensive course provides an advanced study in the application of ethical guidelines, legal standards, HIPAA, and professional responsibilities in the treatment of addiction and substance use disorders. Topics include attitudes, skills, and behaviors of addiction and substance use disorder counselors; prevention of burnout and compassion fatigue; the importance of obtaining supervision and consultation; and licensure and certification. Prerequisites: PCN-100 and PCN-107.

^A Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-430: Chemical Dependency and Substance Abuse: Evaluation, Documentation, and Comprehensive Treatment Planning 4 credits

This course addresses the methodologies associated with comprehensive screening, assessing, and documentation procedures along with the development and implementation of a comprehensive treatment plan that includes any necessary referrals or consultation for individuals with chemical dependency and substance use disorders. In addition to the processes described, students develop interpersonal communication skills necessary to address and discuss sensitive and confidential issues with the client, family members, and other service personnel required to fill any service gaps.

PCN-435: Chemical Dependency and Substance Abuse: Psychopathology and Psychotherapy Models 4 credits

This course addresses the methodologies associated with comprehensive screening, assessing, and documentation procedures along with the development and implementation of a comprehensive treatment plan that includes any necessary referrals or consultation for individuals with chemical dependency and substance abuse disorders. In addition to the processes described, students develop interpersonal communication skills necessary to address and discuss sensitive and confidential issues with the client, family members, and other service personnel required to fill any service gaps.

PCN-438: Addiction Counseling: Psychopathology, Evaluation, Counseling and Treatment Planning 4 credits

The origins and trends of addictive behavior are covered, including substances, gambling, Internet, relationship addiction, and others. Understanding the origins of addictions, treatment options, and barriers to treatment is explored. Students also learn about addiction co-morbidity with mental health issues, as well as addictive patterns in minority and culturally diverse communities.

PCN-440: Family Therapy and Education in Addiction, Chemical Dependency, and Substance Abuse Counseling 4 credits

This course provides an overview of the field of family therapy with specific focus on the major models of family intervention, counseling skills and theoretical techniques, and application of counseling principles to the family setting. In addition to the various theories of family structure and process, guiding principles and strategies for assessing are presented, as are other techniques for engaging, connecting with, and educating families.

PCN-445: Psychopathology, Co-Occurring Disorders, and Dual Diagnoses in Counseling 4 credits

The course introduces the biological, psychosocial, and sociocultural etiological perspectives of psychopathology. Topics range from phobic disorder in children to psychological care for cancer patients to eating disorders in athletes. This course also explores concepts, definitions, and features of co-occurring mental disorders and substance-related disorders and addresses the intake process, diagnosis, counseling, and treatment planning as part of a team providing services to dual-diagnosed clients.

PCN-475: Treatment of Addiction & Substance Use Disorders - Children and Adolescents 4 credits

This course focuses specifically on the special issues involved in treating children and adolescents struggling with addiction or substance use disorders and how that treatment compares to treatment of adults. Students demonstrate and apply assessment, diagnosis, and treatment methods, as well as understanding of risk factors, social influences, prevention strategies, intervention, treatment planning, and relapse prevention. The importance of family involvement, family education, and legal issues involved in treating children is also discussed. Prerequisites: PCN-100 and PCN-107.

PCN-481: Process Addictions 4 credits

This course provides advanced study in the treatment of process addictions, such as compulsive gambling, sexual addiction, work addiction, spending addiction, and eating disorders. Students learn the special issues involved in screening, assessment, prevention, treatment, and relapse prevention related to process addictions. Prerequisites: PCN-100 and PCN-107.

PCN-481HN^Δ: Process Addictions 4 credits

This course provides advanced study in the treatment of process addictions, such as compulsive gambling, sexual addiction, work addiction, spending addiction, and eating disorders. Students learn the special issues involved in screening, assessment, prevention, treatment, and relapse prevention related to process addictions. Prerequisites: PCN-100 and PCN-107.

PCN-485: Advanced Case Management for Addiction and Substance Use Disorders 4 credits

This course provides advanced study in case management. Students examine case studies on addiction and substance use disorders to develop knowledge and skill in screening, intake, assessment, treatment planning, record keeping, report writing, referral, and case management. Prerequisite: PCN-255.

PCN-488: Trauma, Addiction, and Substance Use Disorders 4 credits

This course provides clinical knowledge of the effects of trauma on clients struggling with addiction and substance use disorders. Students develop knowledge and skill in assessing for anxiety disorders, including trauma, and learn to facilitate a critical incident stress management debriefing. Prerequisites: PCN-100 and PCN-107.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-490^Ω: Practicum 4 credits

This course provides an opportunity for students to develop their counseling skills and to perform all the activities that a regularly employed professional counselor would be expected to perform in a supervised setting. The practicum/internship involves 150 contact hours performed under the supervision of a faculty member and by an on-site supervisor approved by the college or university. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's requirements. Practicum/field experience hours: 150. Prerequisites: GPA of 2.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-491^Ω: Practicum II 4 credits

This course provides an opportunity for students to develop their counseling skills and to perform all the activities that a regularly employed professional counselor would be expected to perform in a supervised setting. The practicum/internship involves 150 contact hours performed under the supervision of a faculty member and by an on-site supervisor approved by the college or university. Practicum/field experience hours: 150. Prerequisites: PCN-490, GPA of 2.0 or better, and maintenance of student professional liability insurance in the amount of \$1 million and \$3 million.

PCN-491A^Ω: Practicum Continuation I 1 credits

This is a continuation of the counseling Practicum/Internship. Prerequisites: PCN-490 or PCN-491, a GPA of 2.0 or better, and maintenance of student professional liability insurance in the amount of \$1 million and \$3 million.

PCN-491B^Ω: Practicum Continuation II 1 credits

This is a continuation of the counseling Practicum/Internship. Prerequisites: PCN-491A, a GPA of 2.0 or better, and maintenance of student professional liability insurance in the amount of \$1 million and \$3 million.

PCN-491C^Ω: Practicum Continuation III 1 credits

This is a continuation of the counseling Practicum/Internship. Prerequisites: PCN-491B, a GPA of 2.0 or better, and maintenance of student professional liability insurance in the amount of \$1 million and \$3 million.

PCN-500: Counseling Theories 3 credits

This course provides a comprehensive survey of the major counseling theories and principles. Coursework includes the following theories: psychoanalytic, Adlerian, existential psychotherapy, behavioral, cognitive behavioral, person-centered, reality therapy/choice theory, and rational emotive behavioral therapy (REBT).

PCN-501: Introduction to Addictions and Substance Use Disorders 3 credits

This course provides a broad understanding of the stages, processes, and effects of substance use disorders, social and psychological dynamics of substance use disorders, and the professional's role in prevention, intervention, and aftercare, including recovery and relapse prevention. This course explores theories and models of treatment of substance use disorders, drug classification, and assessment. It also continues building foundational knowledge, utilization of professional resources, and exploration of standards to help students prepare for licensure/certification within the counseling industry.

PCN-505: Professional Counseling Orientation and Ethics 3 credits

This course provides a broad understanding of counseling ethics, legal standards, and responsibilities, including professional identity, report writing, record keeping, and service reimbursement for professional and substance-use-disorder counselors. Also covered are the history of and current trends in counseling. Important goals of this course are to help students develop a strong personal and professional ethic, as well as an appreciation for the value of professional collaboration and identity.

PCN-509: Social and Cultural Diversity Issues in Counseling 3 credits

This course provides a broad understanding of issues and trends in a multicultural and diverse society. Studies in this area include the following: attitudes and behaviors based on such factors as age, race, religious preference, physical disability, sexual orientation, ethnicity and culture, family patterns, gender, socioeconomic status and intellectual ability; individual, family, group, and community strategies for working with diverse populations; theories of multicultural counseling and identity development; and multicultural competencies. Students examine a variety of cultural populations in multiple regions of the United States, exploring issues and trends that are associated with each population. Cultural considerations for immigrants, refugees, and undocumented immigrants are also addressed.

PCN-515: Counseling Skills in the Helping Relationships 3 credits

This course provides a broad understanding of counseling processes, including characteristics and behaviors that influence the helping processes. Included are age, gender, ethnic differences, verbal and nonverbal behaviors, personal characteristics, and orientations. The development of counseling techniques is emphasized, including establishing and maintaining the counseling relationship; diagnosing and identifying the problem; formulating a preventative, treatment, or rehabilitative plan; facilitating appropriate interventions; and successfully terminating the counseling relationship.

PCN-518: Human Growth and Development 3 credits

This course provides an understanding of the nature, needs, and differing abilities of individuals at all developmental levels. Theories of individual and family development, transitions across the life span, theories of learning, theories of personality development, and ethical and cultural strategies for facilitating optimum development over the life span are addressed.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-520: Group Counseling Theory and Practice 3 credits

This course provides a broad understanding of group development, group dynamics, group counseling theories, and ethical standards with reference to professional and substance use disorders counseling. The course also addresses group process components, appropriate selection criteria, developmental stage theories, group members' roles and behaviors, and group leadership styles and approaches. The course includes didactic and experiential group learning. Required synchronous group experience: 12 hours.

PCN-521: Marriage and Family Therapy 3 credits

This course provides a broad understanding of the structure and dynamics of the family, which may include assessment and methods of marital and family intervention and counseling.

PCN-523: Tests and Appraisal in Counseling 3 credits

This course provides an introduction to basic tests and appraisal in counseling. Individual and group approaches to testing, assessment, evaluation, behavioral observations, computer-managed and computer-assisted methods are addressed. The following statistical concepts are also addressed: scales of measurement, measures of central tendency, and indices of variability, shapes and types of distributions, correlations, reliability, and validity.

PCN-525: Career Development and Counseling 3 credits

This course provides a broad understanding of career development and related life factors including psychotherapy, career counseling techniques and processes, career development theories, decision-making models, issues of diversity, and interrelationships between work and family.

PCN-527: Psychopharmacology and Addictions 3 credits

This course introduces students to the basic principles of psychopharmacology and the effects of psychoactive substances. Students examine the behavioral, psychological, physiological and social effects of psychoactive substance use, and learn to recognize symptoms of intoxication, withdrawal, and toxicity. The class covers various screening options, limitations, legal implications, and the utilization of pharmacotherapy as part of substance addiction treatment.

PCN-529: Co-Occurring Disorders 3 credits

This course introduces students to co-occurring disorders. Students examine screening and assessment tools to reveal and evaluate the presence and severity of co-occurring disorders. This course also explores the treatment needs of persons with co-occurring disorders. Strategies for risk management associated with treating individuals with co-occurring disorders are presented.

PCN-530: Human Sexuality, Aging, and Long-Term Care 3 credits

This course is divided into two distinct and separate sections. The first part of the course examines human sexuality and systems of sexual therapy. Psychological, biological, social, and moral perspectives on sexual development and functioning are also examined. The last part of the course provides an understanding of the nature of aging and the elderly. Theories and strategies for facilitating optimum care of the elderly are addressed. Elder abuse, dependent adult abuse, and neglect of the aging and elderly are explored. Sexuality, mental health, physical health, the role of substance use disorders, and family issues are also addressed.

PCN-531: Family Issues and Addictive Disorders 3 credits

This course examines the impact of substance use disorders in family systems. Various treatment interventions are discussed. The treatment roles and responsibilities of addicted individuals and their families are also examined.

PCN-535: Counseling Chemical Dependency Adolescents 3 credits

This course provides an introduction to adolescent substance use disorders prevention and treatment techniques and interventions. Signs, symptoms, and patterns of adolescent substance use are examined. Students also explore adolescent screening methods and assessment tools.

PCN-540: Research Methods 3 credits

This course introduces research methods and basic statistical analysis, including the following: importance of research, opportunities, and difficulties in conducting research. Research methods such as qualitative, quantitative, single-case designs, action research, and outcome-based research are addressed.

PCN-545: Spousal and Child Abuse, Crisis, and Trauma Counseling 3 credits

This eight-topic course is divided into three distinct and separate sections. The first three topics examine crisis intervention and trauma counseling; Theories and strategies of trauma counseling and facilitating crisis interventions are also addressed. The second three topics examine spousal or partner abuse assessment, detection, and intervention strategies. The legal and ethical issues, the role of substance use disorders, and children in families where domestic violence and abuse occur are also addressed. The last two topics examine child abuse assessment and reporting. Legal and ethical issues and specific California child abuse assessment and reporting codes are also examined.

PCN-605: Psychopathology and Counseling 3 credits

This course introduces the study of mental illnesses and the science of psychopathology. The goal is to provide counseling students a conceptual understanding of psychological and behavioral dysfunction that occurs in mental illnesses. The course includes a survey of major psychiatric disorders and their causes.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-610: Diagnostics, Assessment, and 3 credits
Treatment

This course provides a conceptual framework for the use of assessment and diagnostic tools for the development of appropriate treatment interventions for a variety of behavioral health and substance use disorders. Included is an introduction to the use of the diagnostic tools, including the DSM, and the integration of diagnostic and assessment information, in the development of treatment plans.

PCN-615^Ω: Pre-Practicum 3 credits

This is a pre-practicum or supervised field work experience under the supervision of a faculty member, which includes 100 total hours of pre-practicum activities, of which a minimum of 40 hours are direct client contact hours. Prerequisites: Completion of all didactic coursework in the program; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-622^Ω: Pre-Practicum 2 credits

This is a supervised fieldwork experience under the supervision of a faculty member and an on-site clinical supervisor approved by the college or university. Documentation of a minimum requirement of 100 hours of counseling-related activities, which include 40 direct contact hours, is submitted to Typhon and monitored by the office of field experience. Students may not progress to PCN-662A without the required amount of hours submitted to Typhon and proper approval. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Practicum/field experience hours: 100. Prerequisites: Completion of all didactic coursework in the program; a GPA of 3.0 or better; and maintenance of student professional liability insurance in the amount of \$1 million, \$3 million.

PCN-622B^Ω: Pre-Practicum II 1 credits

This is a continuation of the pre-practicum or supervised field work experience under the supervision of a faculty member. Prerequisites: PCN-622; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-640: Specialization in Professional 3 credits
Counseling

This survey course provides an introduction to the graduate certificate programs in childhood and adolescence disorders, marriage and family therapy, substance use disorders and addiction, and trauma. Students are introduced to the University policies and procedures, the learning management system, the library, and proper APA formatting for academic writing. In addition, students are introduced to the current DSM and how the information relates to the field of counseling. Students also learn about researching and utilizing community resources, and becoming certified in specializations.

PCN-643: Counseling in Community Settings 3 credits

This course provides an overview of the theories and practices of community counseling. Various counseling settings, such as inpatient, outpatient, partial treatment, and aftercare, are examined. The course provides information about theories and techniques of community needs assessments to design, implement, and evaluate mental health care programs and systems. Students explore the manner in which community settings in their local area receive referrals as well as funding. The need for future program development is also discussed.

PCN-644: Evaluation of Mental and 2 credits
Emotional Status

Students in this course are introduced to a variety of testing instruments used to determine a client's emotional or mental status. Assessment procedures are explored within the context of diagnosis and treatment planning. This course focuses on the administration and interpretation of individual and group standardized tests of mental ability, personality, and measurement.

PCN-645: History, Trends, and the 1 credits
Development of Identity in
Professional Counseling

This course is divided into two distinct sections. The first section of the course examines the history of and current trends in professional counseling. The second section addresses the development of a strong personal and professional identity as a counselor. An understanding of the value of professional collaboration and membership in professional counseling associations is also provided.

PCN-660E^Ω: Practicum/Internship V 1 credits

This is a supervised internship that provides students with the opportunity to complete practicum hours not previously fulfilled in PCN-660 sections. The practicum hours are performed under the supervision of a faculty member and an onsite supervisor approved by the college or university. Prerequisites: Completion of PCN-660A, PCN-660B, PCN-660C, and PCN-660D for Professional Counseling students; completion of PCN-660A for Addiction Counseling students; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval. Prerequisites: Completion of PCN-660A, PCN-660B, PCN-660C, and PCN-660D for Professional Counseling students; completion of PCN-660A for Addiction Counseling students; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-662A^Ω: Practicum/ Internship I 2 credits

Students use this supervised practicum/internship experience to develop their counseling skills and to perform all the activities that a regularly employed professional counselor would be expected to perform in a supervised setting. The practicum/internship is performed under the supervision of a faculty member and an on-site clinical supervisor approved by the college or university. Documentation of 150 hours of counseling-related activities, which include 50 direct contact hours, is submitted directly to the college's office of field experience for verification and tracking. Practicum hours: Addiction Counseling students, 150 total hours; Professional Counseling students, 600 total hours. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Practicum/field experience hours: 150. Prerequisites: PCN-622; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-662B^Ω: Practicum/Internship II 2 credits

Students use this supervised practicum/internship experience to develop their counseling skills and to perform all the activities that a regularly employed professional counselor would be expected to perform in a supervised setting. The practicum/internship is performed under the supervision of a faculty member and an on-site clinical supervisor approved by the college or university. Documentation of 150 hours of counseling-related activities, which include 50 direct contact hours, is submitted directly to the college's office of field experience for verification and tracking. Practicum hours: Addiction Counseling students, 150 total hours; Professional Counseling students, 600 total hours. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Practicum/field experience hours: 150. Prerequisites: PCN-622; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-662C^Ω: Practicum/Internship III 2 credits

Students use this supervised practicum/internship experience to develop their counseling skills and to perform all the activities that a regularly employed professional counselor would be expected to perform in a supervised setting. The practicum/internship is performed under the supervision of a faculty member and an on-site clinical supervisor approved by the college or university. Documentation of 150 hours of counseling-related activities, which include 50 direct contact hours, is submitted directly to the college's office of field experience for verification and tracking. Practicum hours: Addiction Counseling students, 150 total hours; Professional Counseling students, 600 total hours. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Practicum/field experience hours: 150. Prerequisites: PCN-622; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-662D^Ω: Practicum/Internship IV 2 credits

Students use this supervised practicum/internship experience to develop their counseling skills and to perform all the activities that a regularly employed professional counselor would be expected to perform in a supervised setting. The practicum/internship is performed under the supervision of a faculty member and an on-site clinical supervisor approved by the college or university. Documentation of 150 hours of counseling-related activities, which include 50 direct contact hours, is submitted directly to the college's office of field experience for verification and tracking. Practicum hours: Addiction Counseling students, 150 total hours; Professional Counseling students, 600 total hours. State licensure requirements may mandate additional hours. Students must review and adhere to their state board's additional requirements. Practicum/field experience hours: 150. Prerequisites: PCN-622; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-662E^Ω: Practicum/Internship V 1 credits

This is a continuation of the counseling Practicum/Internship. A minimum of 45 practicum/internship hours are required. Practicum/field experience hours: 45. Prerequisites: PCN-662A for Addiction Counseling students; PCN-662D for Professional Counseling students; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-662F^Ω: Practicum/Internship VI 1 credits

This is a continuation of the counseling Practicum/Internship. Prerequisites: PCN-662E; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-662G^Ω: Practicum/Internship VII 1 credits

This is a continuation of the counseling Practicum/Internship. Prerequisites: PCN-662F; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-662H^Ω: Practicum/Internship VIII 1 credits

This is a continuation of the counseling Practicum/Internship. Prerequisites: PCN-662G; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

PCN-670: Development through Childhood and Adolescence 3 credits

This course provides a broad understanding of the theories related to child and adolescent development. Also covered are the variables that directly impact children and adolescents throughout their personal development. Students gain the knowledge to advance understanding of childhood and adolescent disorders.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-671: Psychopathology and Treatment of Children and Adolescence 3 credits

This course provides students with an in-depth understanding of common disorders among children and adolescents, as defined in the DSM. Studies in this area include the following: disruptive, impulse control and conduct disorders, ADHD, autism spectrum disorders, separation anxiety and selective mutism, trauma and stressor related disorders, PTSD, and adjustment disorders. Students also gain the required knowledge and skills needed for treating these disorders.

PCN-672: Childhood and Adolescent Trauma 3 credits

This course provides a broad understanding of trauma related issues during childhood and adolescence. Students examine the various types of trauma, including neglect; physical, mental, emotional, and sexual abuse; family trauma; parental substance use; and domestic violence. Students learn assessment and treatment approaches designed for trauma occurring during childhood and adolescence.

PCN-673: Developmental Disabilities 3 credits

This course provides students with an in-depth understanding of the developmental disabilities occurring in children and adolescents, as defined in the DSM. Students examine the following disorders and disabilities: specific language and learning disorders, intellectual disabilities, autism spectrum disorders, attention deficit hyperactivity disorder, sensory processing, and physiological developmental disorders, while learning assessments and measurements used in diagnosing. Students receive an overview of the neurological and cultural perspectives of developmental disabilities, and the unique needs of the families.

PCN-680: Theoretical Foundations of Trauma Assessment, Diagnosis, and Treatment 3 credits

This course teaches students the basics of diagnosing and treating post-traumatic stress disorder, acute stress disorder, and other anxiety cluster disorders. This course also provides a historical context for treatment of trauma-related disorders as well as current best practices in the treatment of trauma.

PCN-681: Community and Global Disaster Response 3 credits

This course investigates community and global crisis. This course also reviews best practices of working with communities in crisis.

PCN-682: Relational Trauma: History and Treatment Issues 3 credits

This course helps students develop a comprehensive understanding of interpersonal violence. Students analyze the contributing factors of interpersonal violence, treatment implications, and best practices within the context of the helping professions.

PCN-683: Working with Developmental Trauma 3 credits

This course outlines the short-term and longitudinal impacts of childhood trauma. This course pays special attention to the effects of trauma on attachment in the child and the family.

PCN-805: Consultation for Behavioral Health Professionals 3 credits

This course provides an overview of collaboration, consultation models, and problem-solving strategies in various behavioral health settings. The focus is on the application of professional consultation services with diverse populations.

PCN-807: Psychopathology, Behavioral Assessment, and Interventions 3 credits

This course provides a broad understanding of psychopathology and clinical pathophysiology, behavioral assessment, common medical treatments, evidence-based interventions, and best practices. The integration of medical psychology and behavioral medicine is discussed. Prerequisite: RES-850.

PCN-810: Organizational Psychology 3 credits

This course provides an overview of the effects of human behaviors, personalities, and group dynamics on relationships in various organizational settings. The focus will be on the application of organizational psychology strategies and interventions to resolve organizational issues and/or problems.

PCN-812: Behavioral Health Management 3 credits

This course proposes application of behavioral health theories to such areas as epidemiology, disease management, assessment and treatment planning, outcome management, and patient retention. Emphasis is placed on improving the quality of patient care. Prerequisite: RES-850.

PCN-815: Psychology of Motivation 3 credits

This course provides a broad understanding of theories of human motivation, including the motivations that underlie both maladaptive and adaptive behaviors. The focus will be on the understanding and application of motivation strategies and intervention with diverse populations.

PCN-820: Behavioral Health Clinical Supervision 3 credits

This course provides a broad understanding of clinical supervision in a variety of behavioral health settings. Clinical supervisory relationships, models of supervision, supervisory assessment instruments, supervisory methods, interventions, and current research are addressed. Prerequisite: RES-861.

PCN-822: Behavioral Health Entrepreneurship 3 credits

This course examines the business aspects of both the for-profit and nonprofit sectors of the behavioral health industry from an entrepreneurial perspective. Emphasis is placed on the characteristics of successful entrepreneurs, creation of business plans, venture capital and investment, laws and regulations governing behavioral health, and tools for measuring business success. Prerequisite: RES-861.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PCN-825:	Ethics and Behavioral Health Leadership	3 credits
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This course provides a broad understanding of professional codes of ethics, the ethics of supervision, the legal standards, and responsibilities as they relate to leadership and supervision in behavioral health settings. An important goal of this course is to help the leaders develop a high standard of ethical performance in their careers.

Physical Education (PED)

PED-103:	Varsity Athletics-Fall/Winter	1 credits
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For athletes who compete on varsity intercollegiate athletic teams at Grand Canyon University. Each athlete may receive credit for this course once only.

PED-104:	Varsity Athletics-Spring	1 credits
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For athletes who compete on varsity intercollegiate athletic teams at Grand Canyon University. Each athlete may receive credit for this course once only.

PED-200♦:	Lifetime Personal Wellness and Teaching of Fitness	4 credits
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This is an introductory course in exercise and wellness. Emphasis is placed on the acquisition of knowledge regarding what fitness entails, self-evaluation of each student's present fitness needs, and development of personalized fitness programs. A special emphasis is placed on a review of nutritional principles and producing a personalized nutrition plan. Students also receive instruction and practice opportunities in the theoretical and practical aspects of flexibility, stretching, and weight training activities. This includes lesson planning, teaching techniques, evaluation, and proficiency in skills by means of lecture, demonstration, and participation.

PED-247^Δ:	Teaching Strategy in Physical Education and Exercise Science	4 credits
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This writing intensive course is designed to prepare future physical education teachers, fitness instructors, and recreational leaders in the skills necessary to teach physical education activities to groups. Included is the development of lesson plans and course goals/performance objectives that can be applied to the teaching of any skill or activity. Becoming aware of the place of physical education and exercise science globally and perspectives on human diversity in all areas of sport and physical activity is included.

PED-251:	Teaching of Team Sports and Individual Activities I	4 credits
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This course is intended to provide students with the general technical and physical skills required to teach selected outdoor sports. Students learn how to plan and organize the team sports of soccer, flag football, and speedball for educational settings; conduct classes while ensuring participants' health and safety; and work with a variety of age and skill levels. This course is also designed to acquaint students with knowledge and experience of outdoor living and outdoor leadership skills. The individual/group activities of camping, backpacking, orienteering, and desert survival skills are discussed and practiced. Field trips to outdoor facilities are taken. Prerequisite: PED-247.

PED-263:	Teaching of Team Sports and Individual Activities II	4 credits
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This course is intended to provide the student with the general technical and physical skill required to teach selected sports. Students learn how to plan and organize the team sports of basketball, softball, and volleyball, and the individual/dual activities of tennis, golf, and badminton for educational settings. Students work with a variety of age and skill levels and conduct classes while ensuring participants' health and safety. Prerequisite: PED-247.

PED-275:	Teaching Fitness and Wellness	4 credits
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This is an introductory course in teaching of fitness and wellness. This course provides a series of modules that encompass all of the important aspects of overall fitness and wellness by means of lecture, demonstration, and participation. Key components throughout involve instruction and application of the needs of the human body, nutritional principles and producing a personalized nutrition plan. A special emphasis is placed on instruction and practice opportunities in the theoretical and practical aspects of flexibility, aerobics, and weight training activities. Also included are assignments to create and implement lesson planning, teaching techniques, evaluation, and proficiency in fitness skills. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: PED-247.

PED-325:	Coaching Baseball: Theory and Practice	4 credits
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This course is intended to introduce the profession of coaching baseball and to explore the issues of qualifications; player and coach development; coaching styles, philosophies, and objectives; motivation, team dynamics, and leadership; and sportspersonship. Special areas of emphasis include the fundamental skills and strategies of baseball, the application of sport-teaching fundamentals to skill and strategy presentation, conditioning, organizing practices and games, and player evaluation. The course also includes field experience—both on and off site—to integrate theory and skills with professional practice.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PED-326: Coaching Basketball: Theory and Practice 4 credits

This course is intended to introduce the profession of coaching basketball and to explore the issues of qualifications; player and coach development; coaching styles, philosophies, and objectives; motivation, team dynamics, and leadership; and sportspersonship. Special areas of emphasis include the fundamental skills and strategies of basketball, the application of sport-teaching fundamentals to skill and strategy presentation, conditioning, organizing practices and games, and player evaluation. The course also includes field experience—both on and off site—to integrate theory and skills with professional practice.

PED-327: Coaching Volleyball: Theory and Practice 4 credits

This course is intended to introduce the profession of coaching volleyball and to explore the issues of qualifications; player and coach development; coaching styles, philosophies, and objectives; motivation, team dynamics, and leadership; and sportspersonship. Special areas of emphasis include the fundamental skills and strategies of volleyball, the application of sport-teaching fundamentals to skill and strategy presentation, conditioning, organizing practices and games, and player evaluation. The course also includes field experience—both on and off site—to integrate theory and skills with professional practice.

PED-328: Coaching Softball: Theory and Practice 4 credits

This course is intended to introduce the profession of coaching softball and to explore the issues of qualifications; player and coach development; coaching styles, philosophies, and objectives; motivation, team dynamics, and leadership; and sportspersonship. Special areas of emphasis include the fundamental skills and strategies of softball, the application of sport-teaching fundamentals to skill and strategy presentation, conditioning, organizing practices and games, and player evaluation. The course also includes field experience—both on and off site—to integrate theory and skills with professional practice.

PED-329: Coaching Soccer: Theory and Practice 4 credits

This course is intended to introduce the profession of coaching soccer and to explore the issues of qualifications; player and coach development; coaching styles, philosophies, and objectives; motivation, team dynamics, and leadership; and sportspersonship. Special areas of emphasis include the fundamental skills and strategies of soccer, the application of sport-teaching fundamentals to skill and strategy presentation, conditioning, organizing practices and games, and player evaluation. The course also includes field experience—both on and off site—to integrate theory and skills with professional practice.

PED-337♦: Theory, Philosophy, and Principles of Coaching 4 credits

This course focuses on the basic theory and principles of how to coach sports. Special topics include the relationship of cognitive strategy, personality, and motivation to athletic success; the balance between competition and cooperation, positive and negative feedback, and anxiety, stress, and arousal; communication, goal-setting, and leadership skills of the coaching profession; participation of the child in sport; the Christian approach to coaching; and the psychology of sport.

PED-344: Physical Education for Special Populations 4 credits

This course is designed to develop methods and techniques of teaching the exceptional child in motor activities. Special topics include legislation that affects children with special needs, inclusiveness, the IEP, characteristics of motor functioning and development, behavior management techniques, and an overview of the types of special populations and their specific needs. Emphasis is also placed on the activities and programs to be included in curriculum and practice in leading activities and implementing programs. Prerequisite: PED-247.

PED-370: Physical Education for Students with Disabilities 4 credits

This course is designed to present the student with the necessary information to develop a plan for identifying, evaluating, and implementing programming for all children with disabilities. Special topics include implications of legislation that affects children with special needs, due process and the IEP, guidelines for inclusiveness and modification of activities for inclusion, characteristics of normal and abnormal motor functioning and development and behavior management techniques. The types of special populations and their specific needs are presented, and methods and techniques are developed for teaching the exceptional child in motor activities. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: PED-247.

PED-405: Elementary School Physical Education 4 credits

This course prepares students to teach physical education to elementary school students. Emphasis is placed on establishing the need for physical education in the schools, how to instruct elementary school children in the psychomotor domain, the subtleties of implementing a physical education program, and the teaching of the objectives of physical education to the school situation and to the individual needs of the child. Experiential teaching and peer review are included in the course. Prerequisite: PED-247.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PED-415: Secondary School Physical Education 4 credits

This course prepares students who desire to teach at the middle school or high school level. Topics include classifications of students, organization of classes, choice and selection of appropriate activities and materials, progression, and testing. The course also examines teaching styles, techniques of effective instruction, and implementing instructional activities that meet NASPE standards in areas such as promoting an active lifestyle, lifetime activity, inclusiveness, responsibility, cooperation, and diversity. Experiential teaching and peer review are included in the course. Prerequisite: PED-247.

PED-415HN^Δ: Secondary School Physical Education 4 credits

This course prepares students who desire to teach at the middle school or high school level. Topics include classifications of students, organization of classes, choice and selection of appropriate activities and materials, progression, and testing. The course also examines teaching styles, techniques of effective instruction, and implementing instructional activities that meet NASPE standards in areas such as promoting an active lifestyle, lifetime activity, inclusiveness, responsibility, cooperation, and diversity. Experiential teaching and peer review are included in the course. Prerequisite: PED-247.

PED-420: Physical Education Teacher Education Methods: Elementary Grades 4 credits

This course prepares students for teaching physical education to elementary grade students. The course begins with a rationale for the necessity of physical education in the schools. This is followed by a detailed overview of how to instruct elementary school children in the psychomotor domain. Methods of program implementation are then examined, including curriculum, instructional effectiveness, content area literacy, management and discipline, and assessment and evaluation. These concepts are then applied in field experiences for teaching of the objectives of physical education in the school situation and for application to learner analysis to meet the individual needs of the child. Experiential teaching and peer review are included in the course. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: PED-247.

PED-430: Physical Education Teacher Education Methods: Middle Grades 4 credits

This course prepares students for teaching physical education to middle grade students. Concepts introduced in PED-420 will be further developed and applied to the middle grade student to enhance personal health skills, general and specialized motor skills, sports and fitness skills, and lifetime activities. Topical areas include content area literacy, curriculum, assessment, data driven instruction, teaching strategies and methods, classroom engagement and management, and learner analysis for K-12 physical education teachers. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: PED-275.

PED-440: Physical Education Teacher Education Methods: Secondary Grades 4 credits

This course prepares students who desire to teach at the secondary school level. Topical areas include how students are assessed and classified, curriculum and instructional organization of classes and selection of appropriate methods, strategies, and materials. The course also examines teaching styles, techniques of effective student engagement, and implementing instructional activities that meet NASPE standards. Special topics involve use of technology in physical activity, content area literacy, data driven instruction and physical learner analysis of secondary school students. Students are encouraged to develop strategies for promoting an active lifestyle, lifetime activity, inclusiveness, responsibility, cooperation, and diversity. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: PED-275.

PED-450: Methods of Teaching and Assessing Health 4 credits

This course is a study of the methods and procedures of teaching health. Resources, aids, and agencies are studied and methods for implementing group processing skills and conducting values based education are reviewed and practiced. Also included are assignments to create and implement lesson planning, teaching techniques, and assessment for the topics of mental health, substance abuse, sexuality and family living, environmental health, nutrition, aging spirituality and death, and personal health. Health assessment topics include an overview of statistical tools, tests and measurements in health and physical education, producing valid and reliable tests, data analysis techniques for test evaluation, test construction assessment, and interpretation of test results. Practice teaching assignments and presentations are included. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: PED-275.

PED-450HN^Δ: Methods of Teaching and Assessing Health 4 credits

This course is a study of the methods and procedures of teaching health. Resources, aids, and agencies are studied and methods for implementing group processing skills and conducting values based education are reviewed and practiced. Also included are assignments to create and implement lesson planning, teaching techniques, and assessment for the topics of mental health, substance abuse, sexuality and family living, environmental health, nutrition, aging spirituality and death, and personal health. Health assessment topics include an overview of statistical tools, tests and measurements in health and physical education, producing valid and reliable tests, data analysis techniques for test evaluation, test construction assessment, and interpretation of test results. Practice teaching assignments and presentations are included. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: PED-247, PED-275, EXS-340, EXS-340L.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PED-480A^Ω: Physical Education Student Teaching I

6 credits

The student teaching experience includes practical/clinical classroom experiences in a school setting with elementary students, grades K-6. Teacher candidates are required to fulfill a full-time 8-week internship experience in a classroom with a certified, experienced teacher. All aspects of instruction are addressed, including effective presentation of movement, sports and fitness skills, strategies and assessments of student learning, student engagement and classroom management, integration of technology and content area literacy, curriculum and learner analysis for elementary physical education teachers. The internship includes the opportunity to utilize applicable content standards for elementary students, including Arizona Professional Teacher's Standards, and Physical Education Teacher Education Standards of the national association Shape America, and to integrate these within the classroom. Practicum/field experience hours: None. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; senior status; a 2.8 GPA; successful completion of state mandated basic skills and content area exams or Praxis I® (Basic Skills) and Praxis II® (Content Area); and approval and placement by Office of Field Experience. Arizona residents will be required to take the Arizona Educator Proficiency Assessment (AEPa) or the National Evaluation Series (NES). All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

PED-480B^Ω: Physical Education Student Teaching II

6 credits

The student teaching experience includes practical/clinical classroom experiences in a school setting with secondary students, grades 7-12. Teacher candidates are required to fulfill a full-time 8-week internship experience in a classroom with a certified, experienced teacher. All aspects of instruction are addressed, including effective presentation of movement, sports and fitness skills, strategies and assessments of student learning, student engagement and classroom management, integration of technology and content area literacy, curriculum, and learner analysis for secondary physical education teachers. The internship includes the opportunity to utilize applicable content standards for secondary students, including Arizona Professional Teacher's Standards, and Physical Education Teacher Education Standards of the national association Shape America, and to integrate these within the classroom. Practicum/field experience hours: None. Fingerprint clearance required. Prerequisites: Successful completion of PED 480A, approval and placement by Office of Field Experience.

Philosophy (PHI)

PHI-103[♦]: Introduction to Philosophy and Ethics

4 credits

This course is an introduction to the discipline of philosophy through a study of representative philosophical problems. Students are introduced to analytic tools that enable them to practice critical thinking, evaluate knowledge claims, and establish a rationale and justification for other academic disciplines. Topics to be considered include logic, epistemology, metaphysics, and ethics.

PHI-103XV: Introduction to Philosophy and Ethics

4 credits

This course is an introduction to the discipline of philosophy through a study of representative philosophical problems. Students are introduced to analytic tools that enable them to practice critical thinking, evaluate knowledge claims, and establish a rationale and justification for other academic disciplines. Topics to be considered include logic, epistemology, metaphysics, and ethics.

PHI-105[♦]: 21st Century Skills: Critical Thinking and Problem Solving

4 credits

This course gives students an introduction to skills of critical thinking and decision making. It provides students opportunities to evaluate the influence and value of these skills in their personal, academic, and professional lives. Emphasis is placed on perception, emotion, fallacious reasoning, and communication.

PHI-105XV: 21st Century Skills: Critical Thinking and Problem Solving

4 credits

This course gives students an introduction to skills of critical thinking and decision making. It provides students opportunities to evaluate the influence and value of these skills in their personal, academic, and professional lives. Emphasis is placed on perception, emotion, fallacious reasoning, and communication.

PHI-301[♦]: Knowledge and Reality

4 credits

This is an advanced study of the nature of knowledge and our knowledge of self and world. It investigates sources and theories of knowledge and rational belief, the role of intellectual virtues in knowledge. Attention will also be given to topics such as the nature of human persons, whether persons have free will, whether there is life after death, and the meaning of life. Prerequisite: PHI-103.

PHI-305^{▲♦}: Ethical Thinking in the Liberal Arts

4 credits

This course considers the role that ethical thinking plays in the liberal arts. Topics are set in historic, literary, artistic, political, philosophical, religious, social, and scientific perspectives. The impact and contributions of leaders in these fields are also considered.

PHI-307[♦]: Applied Ethics

4 credits

This course examines difficult moral questions related to challenging bio-ethical and social issues in order to identify the morally correct course of action in various areas of human life. Prerequisite: PHI-103.

[▲] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PHI-403♦: Philosophy of Religion 4 credits

This course investigates fundamental issues related to religion and religious experience from a philosophical perspective. Attention will be given to arguments for the existence and nature of God, the problem of evil, faith and reason, and the coherence of theism. Prerequisite: PHI-301.

PHI-413V♦: Ethical and Spiritual Decision Making in Health Care 3 credits

This course introduces a Christian foundation for spiritual assessment and care with specific emphasis on biomedical ethical principles and ethical decision-making within nursing practice. Students practice assessment and propose holistic interventions that take into account the dignity of the human person. These assessments and interventions contribute to the physical and spiritual well-being of individuals across the life span and the health-illness continuum.

PHI-610: Christian Apologetics 4 credits

This course examines the rational and existentially compelling defense of the Christian faith within various contexts. Emphasis is placed on apologetic methodology, sound tools of persuasion, the philosophical foundations of key Christian doctrines, and responding to significant objections to Christianity with humility and respect.

Public Health Nursing (PHN)

PHN-600: Foundations of Public Health Nursing 4 credits

This course examines the evolving landscape of public health nursing, including the various roles and settings for public health nursing practice. Students learn about the influence of social, behavioral, and cultural factors on health. Students appraise theoretical frameworks useful for understanding and improving quality and community and population health while considering influential developments in the field and the regulatory, legal, and ethical guidelines that inform practice.

PHN-652: Population-Based Interventions 4 credits

In this course, students closely examine concepts of population health in order to design health promotion and disease prevention interventions for diverse populations. Beginning with the selection of appropriate models for population-based interventions, students assess a population and propose the most appropriate intervention based on available evidence. Students also consider the financial, regulatory, legal, and ethical aspects of population-based interventions and methods for evaluating outcomes. Prerequisite: PUB-550.

PHN-690: Public Health Nursing Practicum 4 credits

This course provides students with the opportunity to apply public health nursing knowledge and skills in various public health settings. Students formulate public health assessments and interventions for improving quality health outcomes for populations in their selected setting while enhancing their leadership and collaboration skills with professionals in the field. Practicum/field experience hours: 150. Prerequisites: Successful completion of all courses in the program of study and clearance from the Office of Field Experience.

Physics (PHY)

PHY-102♦: Introduction to Physical Science 4 credits

This course introduces students to the scientific method. Students are expected to classify objects and materials based on physical and chemical properties, as well as develop an understanding of chemical reactions and flow of energy in a system.

PHY-104♦: Earth and Space Science 4 credits

This course is designed to develop students' skills in the scientific method, develop the understanding of the properties of Earth and its materials, and appreciate Earth in relationship to other objects in space. Concepts include geological and atmospheric phenomena.

PHY-111♦: General Physics I-Lecture 3 credits

This course is a study of basic concepts of physics, including motion; forces; energy; the properties of solids, liquids, and gases; and heat and thermodynamics. The mathematics used includes algebra, trigonometry, and vector analysis. A primary course goal is to build a functional knowledge that allows students to more fully understand the physical world and to apply that understanding to other areas of the natural and mathematical sciences. Conceptual, visual, graphical, and mathematical models of physical phenomena are stressed. Students build critical thinking skills by engaging in individual and group problem-solving sessions. Prerequisite: MAT-154, MAT-250, MAT-261 or College Algebra. Co-Requisite: PHY-111L.

PHY-111L♦: General Physics I - Lab 1 credits

This course utilizes lab experimentation to practice concepts of physical principles introduced in the PHY-111 lecture course. Learners are able to perform the proper analysis and calculations to arrive at the correct quantifiable result when confronted with equations involving gravity, sound, energy, and motion. Prerequisite: MAT-154, MAT-250, MAT-261 or College Algebra. Co-Requisite: PHY-111.

PHY-112♦: General Physics II-Lecture 3 credits

This course is the second in a one-year introductory physics sequence. In this course, the basics of three areas in physics are covered, including electricity and magnetism, optics, and modern physics. Course topics include an introduction to electric and magnetic fields, the nature of light as an electromagnetic wave, geometric optics, quantum mechanics, and nuclear reactions. Prerequisites: PHY-111 and PHY-111L. Co-Requisite: PHY-112L.

^ Writing intensive course | ♦ Fulfills General Education requirement | ^ Honors Major Course | ^ Non-Transferable

PHY-112L♦: General Physics II - Lab 1 credits

This course utilizes lab experimentation to practice concepts of physical principles introduced in the PHY-112 lecture course. Some of the topics learners understand and analyze involve the relationship between electric charges and insulators/conductors, magnetism in physics, energy transformations in electric circuits, the relationship between magnetism and electricity, and how they relate to the medical industry. Prerequisites: PHY-111 and PHY-111L. Co-Requisite: PHY-112.

PHY-121♦: University Physics I 3 credits

This course is a calculus-based study of basic concepts of physics, including motion; forces; energy; the properties of solids, liquids, and gases; and heat and thermodynamics. The mathematics used includes algebra, trigonometry, and vector analysis. A primary course goal is to build a functional knowledge that allows students to more fully understand the physical world and to apply that understanding to other areas of the natural and mathematical sciences. Conceptual, visual, graphical, and mathematical models of physical phenomena are stressed. Students build critical thinking skills by engaging in individual and group problem-solving sessions. Prerequisite: MAT-262. Co-Requisite: PHY-121L.

PHY-121L♦: University Physics I Lab 1 credits

This calculus-based course utilizes lab experimentation to practice concepts of physical principles introduced in the PHY-121 lecture course. Students are able to perform the proper analysis and calculations to arrive at the correct quantifiable result when confronted with equations involving gravity, sound, energy, and motion. Prerequisite: MAT-262. Co-Requisite: PHY-121.

PHY-122♦: University Physics II 3 credits

This calculus-based course is the second in a 1-year introductory physics sequence. In this course, the basics of three areas in physics are covered, including electricity and magnetism, optics, and modern physics. The sequence of topics includes an introduction to electric and magnetic fields. This is followed by the nature of light as an electromagnetic wave and topics associated with geometric optics. The final topic discussed in the course is quantum mechanics. Prerequisites: MAT-264, PHY-121, and PHY-121L. Co-Requisite: PHY-122L.

PHY-122HN♦: University Physics II 3 credits

This calculus-based course is the second in a 1-year introductory physics sequence. In this course, the basics of three areas in physics are covered, including electricity and magnetism, optics, and modern physics. The sequence of topics includes an introduction to electric and magnetic fields. This is followed by the nature of light as an electromagnetic wave and topics associated with geometric optics. The final topic discussed in the course is quantum mechanics. Prerequisites: MAT-264, PHY-121, and PHY-121L. Co-Requisite: PHY-122L.

PHY-122L♦: University Physics II Lab 1 credits

This course utilizes lab experimentation to practice concepts of physical principles introduced in the PHY-122 lecture course. Some of the topics students understand and analyze involve the relationship between electric charges and insulators/conductors, magnetism in physics, energy transformations in electric circuits, the relationship between magnetism and electricity, and how they relate to the medical industry. Prerequisites: MAT-264, PHY-121, and PHY-121L. Co-Requisite: PHY-122.

PHY-122LHN♦: University Physics II Lab 1 credits

This course utilizes lab experimentation to practice concepts of physical principles introduced in the PHY-122 lecture course. Some of the topics students understand and analyze involve the relationship between electric charges and insulators/conductors, magnetism in physics, energy transformations in electric circuits, the relationship between magnetism and electricity, and how they relate to the medical industry. Prerequisites: MAT-264, PHY-121, and PHY-121L. Co-Requisite: PHY-122.

Political Science (POS)

POS-252♦: Federal Government 2 credits

A survey of American government. Meets the teacher certification requirement for American Government.

POS-301♦: Arizona and Federal Government 2 credits

This course is a survey of Arizona history and government, as well as American government. It meets the teacher certification requirement for Arizona government and American government.

POS-500: U.S. and Arizona Constitutions for Teacher Candidates 3 credits

Candidates examine the United States Constitution, and the constitution of the State of Arizona. From this foundational review, candidates will explore application of the United States Constitution and the constitution of the State of Arizona in educational contexts. Practicum/field experience hours: 3. Fingerprint clearance not required.

Public Safety Administration (PSA)

PSA-435V: Strategic Planning 3 credits

This course deals with the fundamentals and application of strategic analysis and planning in public safety.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSA-495V^Ω: Public Safety Capstone 3 credits

This course provides a structured way to organize facts, information, and ideas from the academic major. Theoretical concepts from the major will be discussed by critically analyzing and evaluating ideas relating to a practical application process. Students will examine concepts of faith, belief systems, and sets of values and examine moral and ethical issues, including responsibility to individuals and communities.

Professional Studies Core (PSC)

PSC-410^Δ: Servant Leadership 4 credits

This writing-intensive course focuses on servant leadership and ethical leadership, explores how servant leadership is different from other styles of leadership, and examines how this connects to ethics, accountability, and being a responsible leader.

PSC-450: Project Management 4 credits

This course is a study of the unique challenges associated with managing projects as related to the overarching management framework of planning, organizing, leading, and controlling. Emphasis is placed on balancing competing priorities related to human resources, time constraints, and physical resources/materials. Additional focus is placed on managing and controlling project scope.

PSC-495^{ΔΩ}: Action Research Project 4 credits

This writing-intensive course provides a structured way for managers to take an overview and general management perspective. Emphasis is on a research project that synthesizes major elements of the professional studies program.

Psychology (PSY)

PSY-100[♦]: Psychology in Everyday Life 4 credits

This course explores the practical application of psychology in social learning theory, personality types, relationships, emotions, learning and memory, and other psychological factors that impact human behavior and everyday life.

PSY-102[♦]: General Psychology 4 credits

This foundation course in the science of behavior includes an overview of the history of psychology, the brain, motivation, emotion, sensory functions, perception, intelligence, gender and sexuality, social psychology, human development, learning psychopathology, and therapy.

PSY-102XV: General Psychology 4 credits

This foundation course in the science of behavior includes an overview of the history of psychology, the brain, motivation, emotion, sensory functions, perception, intelligence, gender and sexuality, social psychology, human development, learning psychopathology, and therapy.

PSY-225[♦]: Human Sexuality 4 credits

This course focuses on the topic of human sexuality from a Christian perspective. Themes center on the biological, contextual, and socio-emotional aspects of sexuality. Topics include biological development, sexual communication, sexual morality, cultural differences in sexual expression, sexual problems, sexually transmitted infections, contraception, conception and childbirth, research on sexuality, dating and mate selection, sexual coercion, sexuality in childhood/adolescence, and sexuality in the later years. By the end of this course, students should be able to demonstrate knowledge about the major themes, theories, and influences in the study of sexuality, and be able to apply course theory to real-world situations.

PSY-255^{Δ♦}: Personality Psychology 4 credits

This writing intensive course is a study of the nature and causal determinants of human behavior, including the definition and scientific measurement of personality. Theories studied include the psychodynamic, Neo-Freudian, trait, biological, humanistic, cognitive, and behavioral theories. The Christian perspective on the nature of human personality is also explored. Prerequisite: PSY-102.

PSY-255HN^{Δ♦}: Personality Psychology 4 credits

This writing intensive course is a study of the nature and causal determinants of human behavior, including the definition and scientific measurement of personality. Theories studied include the psychodynamic, Neo-Freudian, trait, biological, humanistic, cognitive, and behavioral theories. The Christian perspective on the nature of human personality is also explored. Prerequisite: PSY-102.

PSY-260[♦]: Introduction to Psychological Research and Ethics 4 credits

This course serves as a foundation for undergraduates in the field of psychology. Professional skill development, such as an introduction to scientific reasoning, research foundations, critical thinking, literature reviews, and scholarly writing are covered, as well as contemporary ethical issues in the field of psychology. Students have the opportunity to apply guidelines proposed by the American Psychological Association Code of Ethics when exploring topics. Prerequisite: PSY-102.

PSY-310[♦]: Introduction to Forensic Psychology 4 credits

This course is an introduction to the field of forensic psychology. Forensic psychology is where the science of the mind intersects with the law. This course explores the scientific principles of psychology as applied to the legal setting. The role and practice of forensic psychology is explored.

PSY-352[♦]: Health Psychology 4 credits

This course reflects psychology's growing interest in health-related issues, and gives students an overview of the broad topics in health psychology. Topics include theories of health behavior, patient adherence, stress and pain development and management, cancer and chronic illness development and management, and health-related behaviors such as substance use, proper nutrition, and exercise. This course focuses on health from a biopsychosocial perspective. Prerequisite: PSY-102.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-354♦: Child Psychology 4 credits

An analysis of prenatal, infant, and child development, this course reviews the physical, social, language, and emotional development of children. The synthesis and integration of personality, motivation, attachment, and play styles are also discussed. Prerequisite: PSY-102.

PSY-355♦: Child and Adolescent Psychology 4 credits

Students entering Child and Adolescent Psychology gain a more in-depth knowledge of development from conception through adolescence. Major theories of physical, motor, emotional, and social development of children are critiqued and analyzed. Students engage in learning about the developmental milestones, personality, language, moral development, typical and atypical behaviors, and learning and cognition. An emphasis on research methodology and interpretation is used to analyze the concepts in this class.

PSY-356♦: Learning and Cognition 4 credits

This course is designed to give students a basic understanding of thinking and learning, including problem solving, language and memory, intelligence and assessment, conditioning, motivation, and emotion. Practical applications in educational and other settings are discussed. Prerequisite: PSY-102.

PSY-357♦: Lifespan Development 4 credits

This is a course in developmental psychology with emphasis on the physical, social, cognitive, personality, and moral developments within an individual. The course is designed to provide an understanding of the transitions of life from conception to death.

PSY-358♦: Adult Development and Aging 4 credits

This theoretical and research-based course covers psychosocial, emotional, physical, and cognitive aspects of human development from emerging adulthood to death. Theories of development and applications to real-world situations provide a context for understanding how humans transition across stages of adulthood to death. Scientific approaches for studying developmental psychology stress the importance of research methodology and research interpretation. Prerequisite: PSY-102.

PSY-361♦: Attitude and Social Behavior 4 credits

This course provides students with an in-depth look at social influences on human behavior. It is intended for students who are interested in theory and research on how attitudes influence and are influenced by behavior. Emphasis will be placed on biological explanations of social behaviors in animals, group processes, observational learning, helping others, attachment, social support, modeling, and the factors that affect attitude change.

PSY-362♦: Social Psychology and Cultural Applications 4 credits

This course provides a study of social and group factors affecting individual behavior. Attention is given to the development of attitudes, roles, norms, group processes, aggression and cooperation, persuasion, stereotypes and prejudices, and social awareness. The role of culture in social processes is emphasized.

PSY-362HN♦: Social Psychology and Cultural Applications 4 credits

This course provides a study of social and group factors affecting individual behavior. Attention is given to the development of attitudes, roles, norms, group processes, aggression and cooperation, persuasion, stereotypes and prejudices, and social awareness. The role of culture in social processes is emphasized. Prerequisite: PSY-102 or SOC-102.

PSY-366♦: Introduction to Sport and Exercise Psychology 4 credits

This course provides an overview of factors influencing participation in individual or group sport and performance. Additionally, outcomes associated with performance are examined. Current theory and research are presented to develop an understanding of behaviors in sport and performance settings. Further, techniques applied to enhance sport performance are examined.

PSY-368♦: Social Aspects of Sport/Psychosocial Aspects of Sport 4 credits

This course examines intersections of sociological environments and sport both in North America and globally, including social and cultural theories of social class, education, gender, religion, ethnicity, and sexuality in sport.

PSY-369♦: Social Psychology 4 credits

This course provides a study of social and group factors affecting individual behavior. Attention is given to the development of attitudes, leadership roles, group thinking, sources of conflict, effects of competition and cooperation, analysis and evaluation of propaganda techniques, and the influence of mass communication on social awareness and control. Also SOC-369. Prerequisite: SOC-102.

PSY-369HN♦: Social Psychology 4 credits

This course provides a study of social and group factors affecting individual behavior. Attention is given to the development of attitudes, leadership roles, group thinking, sources of conflict, effects of competition and cooperation, analysis and evaluation of propaganda techniques, and the influence of mass communication on social awareness and control. Also SOC-369. Prerequisite: SOC-102.

PSY-380♦: Introduction to Probability and Statistics 4 credits

This course is a study of elementary theories of probability, distribution, and testing of statistical hypotheses. Practical experience is provided in the application of statistical methods. Prerequisite: MAT-134, MAT-144 or MAT-154.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-402♦: Cognitive Neuroscience 4 credits

This course includes an introduction to the experimental study of cognition and neurophysiology. Topics include sensation and perception, memory, learning, language, metacognition, intelligence, problem solving, decision-making, mental imagery, consciousness, attention, and the development of cognition through the life span. Major theoretical perspectives and current research within the fields of cognition and neuroscience are discussed. This course also provides students with a basic understanding of the neural underpinnings of a variety of cognitive processes. Prerequisite: PSY-102.

PSY-410♦: Psychology of Coaching 4 credits

This course provides an introduction to current research and theories regarding coach-athlete relationships and the coaching profession, including leadership, psychosocial factors, and performance of teams and athletes. Additionally, strategies for effective coaching are presented.

PSY-425♦: Leadership and Team Building 4 credits

This course studies principles influencing team building strategies and leadership skills. Foundations such as servant, situational, and charismatic leadership are examined, including leadership qualities, skills, and cultural contexts.

PSY-452♦: Experimental Psychology 4 credits

This course is a laboratory course emphasizing both the theoretical and applied aspects of experimental design and research methodology. A variety of activities are performed in such areas as learning, motivation, and perception. Prerequisite: PSY-380.

PSY-452HN^Δ♦: Experimental Psychology 4 credits

This course is a laboratory course emphasizing both the theoretical and applied aspects of experimental design and research methodology. A variety of activities will be performed in such areas as learning, motivation, and perception. Prerequisite: PSY-380.

PSY-460♦: Fundamentals of Counseling and Guidance 4 credits

This course, which is designed for teachers, ministers, business personnel, and community agency workers, emphasizes the effective use of psychology as a tool for guidance by persons in various occupations. Prerequisite: PSY-102.

PSY-470^Δ♦: Abnormal Psychology 4 credits

This is a writing intensive foundation course in the science of abnormal behavior that offers students the opportunity to study the origin and development of abnormal patterns and disorders. This course is designed to assist students in recognizing and understanding mental illness through increased awareness of emotional, functional, and physiological factors influencing mental health. Specific topics include symptoms, diagnoses, etiology, epidemiology, and treatment of various psychological disorders and syndromes.

PSY-470HN^Δ♦: Abnormal Psychology 4 credits

This is a writing intensive foundation course in the science of abnormal behavior that offers students the opportunity to study the origin and development of abnormal patterns and disorders. This course is designed to assist students in recognizing and understanding mental illness through increased awareness of emotional, functional, and physiological factors influencing mental health. Specific topics include symptoms, diagnoses, etiology, epidemiology, and treatment of various psychological disorders and syndromes. Prerequisite: PSY-102.

PSY-495♦: Professional Capstone Project 4 credits

The capstone project is the culmination of learning experiences for students in the psychology program at Grand Canyon University's College of Humanities and Social Sciences. Students prepare a written proposal for a research project that focuses on the resolution of an issue or problem significant to professional psychological practice. The proposal includes a problem statement, review of literature, research methods, research questions, limitations, and ethical considerations for the research. The proposal needs to reflect synthesis and integration of course content and professional practice. The capstone project is guided by the baccalaureate program student learner outcomes. This capstone course needs to be completed at the end of program. Prerequisite: PSY-452.

PSY-499: Independent Study 1 credits

This course involves research, seminars, or readings on a special topic to be selected by the student and the faculty advisor. This course may be taken for one, two, three or four credits, depending on the amount of time and work involved and may be repeated for up to four credits total credit per subject area unless specified otherwise in requirements for a major.

PSY-510: Contemporary and Ethical Issues in Psychology 4 credits

This course serves as the foundation for advanced graduate study in the field of psychology. Professional skill development, such as critical thinking, scholarly writing, and literature reviewing are covered, as well as contemporary ethical issues in the field of psychology, including issues in research, writing, psychotherapy, forensic psychology, and animal research.

PSY-520: Graduate Statistics 4 credits

This course provides a study of theories of probability, descriptive and inferential analyses of data, and testing of statistical hypotheses. Practical experience is provided in the application of statistical methods.

PSY-530: Social and Cultural Psychology 4 credits

This course is a study of social, group, and multicultural factors affecting individual behavior. Attention is given to the development of attitudes, leadership roles, group thinking, sources of conflict, altruism, attraction, effects of competition and cooperation, analysis and evaluation of propaganda techniques, and the influence of mass communication on social awareness and control.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-550: Research Methods 4 credits

This course emphasizes both the theoretical and applied aspects of experimental design and research methodology at the graduate level, including qualitative, quantitative, and mixed designs.

PSY-560: Learning, Cognition and Motivation 4 credits

This course offers advanced theory in human cognition and learning, including attention, memory, consciousness, decision making, problem solving, motivation, cognitive mapping, and schemata.

PSY-565: Industrial/Organizational Psychology 4 credits

This course applies social and organizational methods and principles to business and industry as it applies to Industrial and Organizational Psychology.

PSY-570: Psychopathology 4 credits

This course offers students a deeper understanding of current issues in adult psychopathology, including personality disorders, psychological disorders, and co-occurring disorders. Students gain advanced knowledge of clinical assessment and treatment planning and engage in in-depth research in the field related to the symptoms, etiology, epidemiology, and treatment of psychological disorders.

PSY-572: Pedagogy for the Psychology Classroom 4 credits

This course emphasizes principles of pedagogy and student learning in the context of psychology. Students are encouraged to apply education frameworks to a psychology classroom. Through an emphasis on real-world organizational development, traditional theories of student comprehension, and modern pedagogy, this course prepares students to teach a diverse and broad range of psychology courses.

PSY-575: Organizational Behavior and Development 4 credits

This course examines the theoretical foundations for organizational development and explores how organizations function and the psychology behind it.

PSY-580: Foundations of Human Factors 4 credits

This course is an examination of the practical application of Human Factors theories and principles.

PSY-581: Sensation and Perception 4 credits

This course is an examination of the human ability to receive and process information through visual and auditory senses.

PSY-582: Software 4 credits

This course is a practitioner's guide to a human centered design approach to software development and evaluation.

PSY-583: Cognition 4 credits

This course is a fundamental examination of cognitive psychology as it applies to human factors.

PSY-610: Introduction to Coaching 4 credits

This course covers the differences and similarities between coaching and other social services fields, such as counseling, psychology, or social work. Students learn the principle theories influencing the field of coaching as well as fundamental coaching skill.

PSY-611: Individual Coaching 4 credits

This course provides a deeper look into coaching for individuals. It covers skills, models, and techniques specific to working with individuals and competencies of coaching. Students learn the basics of developing a professional coaching plan and niche development.

PSY-612: Business and Organization Coaching 4 credits

This course provides an overview of executive coaching provided within the business/organization as well as the ethical considerations specific to this field.

PSY-613: Assessment/Facilitation 4 credits

This course provides an overview of assessments commonly used in the coaching field. Students will develop an understanding of administration and interpretation of assessments as well as how to provide professional feedback relevant for real life application.

PSY-620: Theories of Criminal Behavior 4 credits

This course explores classic and contemporary theories of crime causation, including psychological, developmental, and social causes of crime and theories of punishment.

PSY-621: Psychology and the Legal System 4 credits

This course provides a psychological perspective for understanding legal issues, an examination of the various roles, functions, strategies, and interagency relationships of the courts, government entities, elements of the crime, and the individual as it relates to due process within the context of crime control.

PSY-622: Psychopathology of Crime 4 credits

This course requires students to comprehensively examine various psychopathologies behind criminal behavior. Topics such as biological, genetic, neurochemical, cognitive, and sociological factors underlying criminal behavior will be examined. A focus will be placed on addiction, brain imaging, and future biopsychosocial research.

PSY-623: Offender Rehabilitation and Reintegration 4 credits

This course examines various approaches to rehabilitative treatments in offender populations. A close look at rehabilitative methods within sex offenders, drug offenders, white collar criminals, cyber criminals, female offenders, juveniles, and mentally ill populations will be taken. Students will examine public policy and research based methods for successful prevention and community reintegration.

PSY-630: Sociology of Aging 4 credits

This course is a critical examination of social policies and systems which affect aging and retirement. The impact of multiple social contexts such as family, employment, work, and religion are examined.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-631: Death and Dying 4 credits

This course introduces the concept of death in society. Students examine research, theories, and case studies on the sociocultural dimensions of death and dying with a focus on end of life issues and grief management.

PSY-632: Physical Health and the Biology of Aging 4 credits

This course examines the biological principles and research that explain the causes of aging. An investigation into the human experience of biological aging, longevity, and age-related disease is made in order promote and modulate successful aging.

PSY-633: Psychological, and Emotional, and Spiritual Aspects of Aging 4 credits

This course examines the psychological, emotional, and spiritual aspects of aging. There is a focus on promoting positive aging and increasing well-being. Prerequisite: PSY-630.

PSY-650: Human Development 4 credits

This course in developmental psychology emphasizes the physical, social, cognitive, personality, spiritual, and moral developments within an individual. The course is designed to provide an understanding of the transitions of life from conception to death.

PSY-655: Strategies for Effective Leadership and Consultation 4 credits

This course examines methods for achieving personal, group, and organizational goals through effective consulting and management strategies.

PSY-660: Health Psychology 4 credits

Using the biopsychosocial model of health, this course examines how biological, psychological, and social factors interact with health-promoting and illness-preventing behaviors. Personality factors and the medical community's role in health promotion are also covered.

PSY-661: Promotion of Health Behaviors 4 credits

This course explores the promotion of health behaviors at the individual and community level. A special focus is on prevention programs and utilization of media to impact health behaviors. Factors contributing to successful prevention programs will be analyzed and program evaluation techniques will be demonstrated. Successful survey design techniques will be introduced and the current trends in health psychology will be explored.

PSY-662: Health and Wellness 4 credits

This course examines a variety of factors related to wellness and includes a focus on substance use and abuse, nutrition, weight control, diet, exercise and safety. An exploration of lifestyles factors related to promoting health and wellness across the lifespan is assessed as well as effective coaching for health and wellness.

PSY-663: Future of Health Psychology 4 credits

This course examines the future of Health Psychology with an emphasis on understanding current public policy and implementing changes in this sector. Careers related to Health Psychology and issues and controversies that impact the field are investigated.

PSY-664: Community Health 4 credits

This course examines health and prevention at the community level. This course examines the implementation of community wide change through intervention, prevention and program evaluation. Students will explore current research related to topics relevant to Community Psychology.

PSY-665: Principles of Personnel and Human Resource Management 4 credits

This course examines psychological principles related to personnel and human resource management in both physical and virtual work environments.

PSY-693^Δ: Professional Capstone 2 credits

This course prepares students to enter their prospective career and/or continue their education in psychology. Students will explore occupations and leaders in the various psychological fields, formulate and compile their experiences and achievements, and construct a roadmap for success. Original research ideas will be solidified and presented.

PSY-695: Capstone Course 4 credits

In this course, students complete a master's research proposal by choosing an original topic and creating a proposal that addresses the literature review, the hypothesis, a method section, and discussion of hypothetical results.

PSY-801^Δ: Doctoral Studies in Psychology 3 credits

This course serves as the foundation for advanced graduate study in the field of psychology. Professional development of skills such as critical thinking, scholarly writing, and literature reviewing is covered, and students are encouraged to formulate their own goals and objectives for their doctoral study in psychology.

PSY-802: Psychoanalysis and Psychodynamic Theory 3 credits

This course is an introduction to the nature, origins, and history of psychoanalysis and psychotherapy. Although not a clinically based course, the course does address the psychoanalytic and psychotherapeutic strategies used to assist individuals with managing personal and inter-personal issues leading to improved mental health.

PSY-803: Behaviorism 3 credits

This course examines the historical and theoretical background of the behavioristic movement and its major works. The course also examines methods and techniques to help teach and learn new behaviors as well as the concepts and strategies to diminish or eliminate unwanted behaviors.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-804: Humanistic, Transpersonal and Existential Psychology 3 credits

This course explores the historical roots, theoretical foundations, major works, and guiding philosophy of Humanistic, Transpersonal and Existential (HTE) psychology. This course also examines the different approaches to studying HTE as it relates to human motivation, needs, will, love, and existence in a contemporary world.

PSY-805: Advanced Social Psychology 3 credits

This course is a study of social, group, and multicultural factors affecting individual behavior. Attention is given to the development of attitudes, leadership roles, group thinking, sources of conflict, altruism, attraction, effects of competition and cooperation, analysis and evaluation of propaganda techniques, and the influence of mass communication on social awareness and control.

PSY-807: Theories of Cognition, Motivation, Collaboration, and Learning 3 credits

This course discusses foundational theoretical research in areas such as cognition, motivation, learning, communications, and collaboration. Applications to both learning and communications solutions are addressed as are research initiatives.

PSY-810: History and Systems of Psychology 3 credits

This course is designed to familiarize the graduate student with the major schools of thought in psychology and their philosophical origins. The individuals and their personal experiences are examined in depth. The social, economic, and political forces that have influenced the developing discipline of psychology are also examined.

PSY-812: Tests and Measurements 3 credits

This course is a study of the purposes and uses of tests. Topics include measuring objectives and learned outcomes, analyzing and interpreting tests, and understanding statistics as applied to standardized tests.

PSY-815^Ω: Ethical Issues In Psychology 3 credits

This course serves as the foundation for ethical study in the field of psychology. Ethical issues in research, writing, psychotherapy, forensic psychology, and animal research are covered. The origins of ethical practices—including the philosophical theories of ethics, the Christian worldview, and the APA code of ethics—are also addressed.

PSY-817: Technologies for Learning and Communication 3 credits

This course enables the learner to research current and emerging technologies in learning and communications. The psychology of applying technology to individuals, organizations, and communities, and the assessment of risks and benefits associated with the use of technology are discussed.

PSY-820: Cognitive Science 3 credits

This course examines theoretical and empirical approaches to understanding different mental processes, including perception, attention, reasoning, intelligence, creativity, concept formation, memory, mental imagery, language, emotional states, and moral reasoning. The development and underlying foundations of these processes and their instantiation in the brain are examined.

PSY-821: Building Community and Social Networking 3 credits

This course enables the learner to create strategies for building communities and social networks. The areas of psychology relevant to collaboration, communities, mass communications, and social networking are discussed. The psychology of change at the organization, community, and social network levels is also addressed.

PSY-823: Learning and Communication Design 3 credits

This course enables the learner to use a systematic design process to develop learning and communication solutions. The psychologies of creativity and innovation are discussed in the contexts of the design process and their influences on scholarly research.

PSY-825^Ω: Advanced Research Design 3 credits

This course emphasizes both the theoretical and applied aspects of experimental design and research methodology at the graduate level, including qualitative, quantitative, and mixed designs.

PSY-827: Integrating for Learning and Communication 3 credits

The integration of psychology, technology, and learning is discussed as it relates to innovative research and solutions for learning and communications. The development of a rationale for integration and change including factors such as costs, benefits, and risks is addressed as learners integrate theories, such as social intelligence, to enable successful change.

PSY-828: Advanced Life Span Development 3 credits

This course examines advanced topics in the field of human development. Students increase their knowledge across the life span by examining the current research in physical, social, cognitive, personality, and moral development across the life span.

PSY-830: Principles of Industrial and Organizational Psychology 3 credits

This course applies social and organizational methods and principles to business and industry. Topics include human behavior at work; personnel selection, evaluation, and training; motivation and job satisfaction; management philosophies; employee-management relationships; work and equipment design; working conditions, accidents and human errors; and consumer psychology.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-831: Foundations of Performance Psychology 3 credits

This course is designed to apply theories of emotion, cognition, and motivation to performance and explore the variables related to performance excellence. Application of performance psychology principles to applied settings is also addressed.

PSY-832: Psychology of Leadership 3 credits

This course provides an extensive consideration of leadership theories, models, styles, and best practices.

PSY-833: Psychomotor Performance 3 credits

This course introduces motor learning and control principles, constructs, laws, and theories, and their application to individual skill learning.

PSY-834: Psychology of Consulting and Coaching 3 credits

This course explores methods for accelerating individual, group, and organizational performance through consulting, coaching, and change management.

PSY-835: Principles of Behavior Modification 3 credits

This course examines theoretical and empirical approaches to learning theory and behavior modification. The course focuses on the fundamental approaches and applications of learning theory and applied behavioral analysis to modify behavior.

PSY-836: Principles of Personnel and Human Resource Management 3 credits

This course examines psychological principles related to personnel and human resource management in both physical and virtual work environments. Topics include personnel selection, affirmative action and equal opportunity decision making in selection, design and evaluation of training programs, training methods and management development, performance appraisal, and the work environment.

PSY-837: Applied Psychology of Leadership 3 credits

This course provides an overview of leadership theories and models from a psychological perspective. It introduces leadership development within the individual, group, and organization, focusing on the skills and abilities of effective leaders.

PSY-838: Testing and Assessment in the Workplace 3 credits

This course provides students with an overview of the different types of tests used in organizational settings and experience in their application. Included is a comprehensive examination of psychometric properties used to develop and evaluate these instruments. Students are presented with theoretical basis, skill sets, and examples, and learn to establish and maintain rapport in a testing situation; administer, record, and score specific measures of cognitive ability and achievement; interpret test results; and summarize results in a written report.

PSY-839: Performance Enhancement 3 credits

The purpose of this course is to apply psychological theories and principles. The learner completes an applied project utilizing a case study.

PSY-840: Personality Psychology 3 credits

This course is a study of the nature and causal determinants of human behavior, including the definition and scientific measurement of personality. Theories studied include the psychodynamic, neo-Freudian, trait and factor, cognitive, and behavioral theories. The Christian perspective on the nature of human personality is also explored.

PSY-843^Δ: Program Evaluation 3 credits

This course is an introduction to the logic and methods of modern social program evaluation. Program evaluation derives from the idea that social programs should have demonstrable effects, and those effects should in some way outweigh the costs of the program. This course focuses on theoretical and strategic issues in designing and implementing formative or summative evaluations, including assessment of fidelity to a model and assessment of impact, with special attention to the effects of the sociocultural context in which the intervention takes place.

PSY-845^Δ: Doctoral Statistics 3 credits

This course provides a study of theories of probability, descriptive and inferential analyses of data, and testing of statistical hypotheses. Practical experience is provided in the application of statistical methods.

PSY-847: Biological Psychology 3 credits

This course emphasizes the relationship between brain and behavior. The role of genetic, neural, and hormonal physiological processes in sensation, perception, motivation, and learning are discussed in the context of recent research.

PSY-850^Δ: Qualitative Research Methods 3 credits

This course provides students with an overview of qualitative methods and offers students the opportunity to apply and interpret qualitative research. Topics include data collection, data analysis, appropriate qualitative inquiry, and theories of qualitative methods.

PSY-860: Human Learning and Cognition 3 credits

This course offers advanced theory in human cognition, learning, and motivation, including attention, memory, consciousness, decision making, problem solving, motivation, cognitive mapping, and schemata. Prerequisite: PSY-820.

PSY-863: Cognition and Instruction 3 credits

This course is designed to apply theories of cognitive psychology to learning and instruction, and thus explores the principles of learning in the context of formal education. Educational research related to classroom practice and application is considered in four domains: information processing/memory, attitudes/motivation, intelligence, and formal learning.

PSY-866: Social Cognition 3 credits

This course is a study of social cognition, including how people understand themselves and other people. Prerequisite: PSY-863.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PSY-870^Ω: Multivariate Statistics 3 credits

This course furthers students' knowledge in statistics through the use of multivariate statistics. A wide variety of multivariate statistical methods is covered, including their process, analysis, and appropriateness to given research questions. Prerequisite: PSY-845.

PSY-885^Ω: Developing the Research Proposal 3 credits

In this course, learners formalize their research proposal specific to their topic. Emphasis is placed on fully developing Chapter 1 and incorporating Chapters 2 and 3 (drafts) from previous research courses. This proposal becomes the first three chapters of the dissertation upon approval of the final draft by the College of Doctoral Studies. Prerequisite: RES-880.

PSY-955^Ω: Dissertation I 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design independent research under the guidance of the dissertation committee.

PSY-960^Ω: Dissertation II 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: PSY-955.

PSY-965^Ω: Dissertation III 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: PSY-960.

PSY-966^Ω: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-965.

PSY-966E: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-965.

PSY-967^Ω: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-966.

PSY-967E: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-966 or PSY-966E.

PSY-968^Ω: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-967.

PSY-968E: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-967 or PSY-967E.

PSY-969^Ω: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-968.

PSY-969E: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-968 or PSY-968E; RSD-951.

PSY-970^Ω: Research Continuation V 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY-969.

PSY-975^Ω: Dissertation Research Continuation 0 credits

This course emphasizes the finalization of the dissertation and provides learners guidance for finding the appropriate venues and approaches in publishing their research findings. This will include the final steps necessary in pulling together what might have been earlier versions of chapters 1, 2, and 3, as well as the proofing and dissertation editing strategies that are required and the steps scholars can take to make sure their results are, in fact, shared with other scholars. This includes an exploration of writing research articles, preparing to present scholarly papers, as well as other publication venues. Prerequisites: PSY-966E or PSY-970 and either RSD-951 or D-35 status.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Public Health (PUB)

PUB-200: Health Promotion and Disease Prevention 4 credits

This course incorporates principles of human health and disease, health education and promotion, and a consideration of how public health professionals promote a culture of health through engaging and empowering individuals and communities to choose healthy behaviors and reduce their risks for disease. Through an examination of the core functions and goals of public health, levels of prevention, social determinants of health, and the theoretical contexts of health behaviors, students begin to understand the cultural context for health promotion and the complexities involved in promoting and protecting public health.

PUB-240: Environmental and Occupational Health and Safety 4 credits

This course examines factors in both the natural and built environment that influence human health. Along with an overview of contemporary environmental health issues, students examine elements of workplace health and safety, emergency preparedness, and the impact of organizational policies and procedures on human health in occupational settings.

PUB-360: Community Assessment and Planning 4 credits

Course Description: This course introduces the steps of public health programming implementation with an emphasis on assessment and planning. Students examine the assessment process, frameworks for community assessment, and the utility of theoretical models in planning. Along with the fundamentals of program management, students delve into strategic approaches to planning, including goal setting, process evaluation, and change management, to effectively engage communities in public health programming. Prerequisite: PUB-200.

PUB-380^Δ: Epidemiological Research Design and Methods 4 credits

This course introduces basic epidemiological concepts including methods to study the distribution and determinants of disease. Students learn fundamental research methods and components of a strong research design and apply qualitative and quantitative methods to describe disease and test hypotheses. Transmission and the clinical progression of disease are evaluated through epidemiological models. Prerequisite: PSY-380.

PUB-390^Δ: Foundations in Global Health Practice 4 credits

This course examines global health concepts with a focus on low- and middle-income countries. Students develop a global perspective in understanding the influence of culture and the sociopolitical factors involved with health and well-being. The course considers key topics of water and sanitation, agriculture and nutrition, maternal and child health, and climate change, along with practical knowledge for working in a global health-focused career.

PUB-410^Δ: Implementation and Evaluation of Public Health Interventions 4 credits

This writing intensive course examines the knowledge and skills needed to implement and evaluate public health interventions in various settings. Students learn the steps involved in the implementation of evidence-based interventions, allocation of resources, and marketing and promotion of programs. An overview of evaluation approaches and designs is provided and students apply data collection skills used in evaluation, including survey design and data analysis. Ethical considerations during the implementation and evaluation of interventions are also explored. Prerequisite: PUB-360.

PUB-430^Δ: Public Health Data Systems and Informatics 4 credits

In this course, students explore diverse data systems, such as disease registries, surveillance data, and geographic information systems, to learn about health and disease. Students learn to use technology to manage and share data appropriate for the targeted audience and apply tools of health informatics to interpret and communicate data for decision making and program or policy development. Prerequisite: PUB-380.

PUB-450^Δ: Public Health Policy and Financing 4 credits

In this writing-intensive course, students examine the structure, function, financing, and delivery of public health and health care services at the local, state, and federal levels. Students explore the role of policies and regulations on the delivery and quality of public health and health care services. The course also considers the relationship between private and public sector health care systems and public health in addressing population health. Strategies for advocacy, including advocating for health issues and communities, are also explored.

PUB-480^Δ: Ethical Practice in Public Health 4 credits

The purpose of this course is to examine ethical approaches to working in diverse teams, across cultures, and with vulnerable populations. Students explore ethical issues related to community-based research and public health programming, along with approaches to navigate through ethical dilemmas. This course covers how professionalism and human rights guide decisions that lead to a respect for others and social justice.

PUB-490: Public Health Capstone Project 4 credits

In this culminating course, students have the opportunity to integrate and apply the public health knowledge and skills acquired in their program either through a 30-hour volunteer service learning opportunity in the field of public health, or through a research-based project developing a proposal to address a public health issue. This experience is designed to promote critical reflection, allow the student to develop leadership skills, and provide a practical connection to the field of public health. Prerequisites: PUB-380 and PUB-410.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PUB-510: Foundations of Public Health 2 credits

This course introduces students to the broad field of public health, professional roles, and the basic principles of disease prevention and health promotion among communities and populations. Students examine historical trends in the field, the 10 Essential Public Health Services, and how public health services are designed and delivered within the public health infrastructure. The course introduces students to the upstream causes of morbidity and mortality across the life span and how the public health system in the United States addresses these causes.

PUB-520: Social and Behavioral Principles of Public Health 4 credits

Students in this course identify social and behavioral approaches in public health to effect change at the individual, interpersonal, organizational, and community levels. Students examine the influence of the social, political, and economic landscape of the community on perceptions of health, and assess the readiness of individuals and the community for change. Students explore the social determinants of health and apply theoretical frameworks to address public health issues and reduce health disparities. Students also evaluate the best methods to empower change and engage communities in public health initiatives with sensitivity to the diverse spiritual, cultural, and psychosocial needs of the populations they serve. Students research specific issues related to health equity, applying a theoretical framework, identifying contributing factors, and proposing appropriate interventions. Prerequisite: PUB-510.

PUB-540: Principles of Epidemiology 4 credits

This course introduces epidemiological principles and methods to study, quantify, and assess the distribution and determinants of disease among populations. Students examine the influence of biological and social factors on population health, including epigenetics, infectious disease, and foodborne illnesses. Students evaluate epidemiologic study designs and apply measures of association as methods for determining relationships. Prerequisite: PUB-520 or PHN-600.

PUB-550: Application and Interpretation of Public Health Data 4 credits

This course introduces students to the application and interpretation of data to assess, design, and justify public health programs. Students learn the basics of data management and statistical analysis using real-life public health data sets. Students consider the implications of crafting a clear research question, identifying available and quality data, applying appropriate data analysis methods, and effectively communicating the results. Research standards and ethics are emphasized in contributing to evidence-based public health practice. Prerequisite: PUB-540.

PUB-560: Environmental Impacts on Health 4 credits

In this course, students consider the interrelationship between human health and the natural and built environments. Students examine current environmental issues and the human activity that affects public and global health, such as climate change, disease transmission (One Health), urbanization, pollution, as well as the impact of these changes over time. Students also study the ethical implications of environmental strategies related to community design, occupational health, and policy influencing human health. Prerequisite: PUB-510.

PUB-610: Communication for Behavior Change 4 credits

This course focuses on using communication to positively influence understanding of health information, decision making, and health behavior. Students examine ways to serve as public health change agents through effective and ethical communication practices. Through an emphasis on health literacy and cultural competence, students learn to design public health communications and select appropriate communication channels for a variety of audiences, including individuals and communities. Students also consider the role of the public health professional as a trusted source of health information and examine strategies for combating misinformation within communities. Prerequisite: PUB-520.

PUB-620: Planning and Evaluation in Public Health 4 credits

In this course, students learn and apply competencies related to the planning, implementation, and evaluation of health promotion and disease prevention programs. Health behavior theories are considered in the development of health promotion programs, the application of evaluation findings, and prioritization of community concerns and resources. Focus is placed on needs assessment, selecting interventions, measuring program outcomes, and collaborating with stakeholders. Students identify methods for data collection, tools for program and resource management, and strategies for assessing effectiveness of programs, including cost-benefit analysis. Prerequisites: PUB-520 and PUB-550.

PUB-650: Public Health Advocacy and Policy 4 credits

In this course, students examine the intricacies of public health policy development and examine the role of federal, state, and local government in the provision of public health programs and services through health policy and law. Emphasis is placed on the role of the public health professional in advocating for public and community health, health equity, and social justice. Students learn advocacy strategies for mobilizing communities, coalitions, and organizations to support and implement policy. Through careful analysis of public health policy and consideration of the implications of Health in All Policies approaches, students learn how local, national, global, social, and economic policies have broad implications for human health. Students also have the opportunity to learn how to structure and write a health policy analysis, including economic and budgetary impacts of policy options. Prerequisite: PUB-610.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

PUB-655: International Perspectives in Community Health 4 credits

In this course, students synthesize the impact of globalization on community health and the complexities of partnering with communities for development among resource-constrained populations. Students review the history of international public health efforts and theories underpinning current global health initiatives. There is an emphasis on the role of faith and ministry-based organizations in global health advocacy and initiatives. Students examine the challenges of building real collaboration across public, private, and local entities, and explore best practices for the integration of faith-based and professional public health principles to establish sustainable local development. Prerequisite: PUB-540.

PUB-660: Leadership and Management in Public Health 4 credits

This course applies principles of strategic leadership and management of public health services within different sectors. Cultural differences in leadership and management are explored to build partnerships leveraging community and organizational strengths. Students learn how to align public health programs with organizational mission, vision, and objectives for sustainability and growth. There is particular emphasis on the collaborative nature of public health, developing cross-cultural competence, and the unique aspects of leadership within various types of agencies, including faith-based organizations. Students have the opportunity to hone their communication, negotiation, and servant leadership skills to empower and influence others working together to improve the health of populations. Prerequisites: PUB-620 and PUB-650.

PUB-680^Ω: Public Health Practicum 4 credits

This practicum course is designed to provide students an opportunity to transition from theory to practice in public health. The student reinforces, integrates, and applies concepts, principles, and skills gained during coursework that are essential to professional competency. Students are required to complete a minimum of 150 hours of field experience in an approved public health setting under close supervision of a qualified preceptor approved by the college. Students reflect on their practicum experience, discuss the application of theory and concepts in practice, identify personal strengths, describe professional development opportunities, and develop a professional portfolio. Practicum/field experience hours: 150. Prerequisites: All previous coursework and a release by the Office of Field Experience.

PUB-690^Ω: Public Health Capstone 4 credits

This capstone course provides students the opportunity to apply public health skills based on their professional interests and goals. Students demonstrate competency through the development of a written, professionally prepared project that can be included as part of a professional portfolio. Students tailor a project based on their professional interests and goals, with the option to write a grant proposal for a public health initiative, develop a comprehensive policy analysis, conduct a secondary data analysis, or complete a program evaluation plan. Prerequisite: PUB-680.

Reading Program (REA)

REA-305[♦]: Children's Literature 4 credits

Teacher candidates survey types and purposes of literature based on the developmental literacy needs of elementary-aged children. Particular emphasis is dedicated to the various genres that exist within the literature spectrum and how to utilize the different genres, including digital text, to meet specific instructional needs and literacy goals of elementary-aged children. Practicum/field experience hours: None. Fingerprint clearance not required.

REA-365: Methods and Strategies for Reading Instruction 4 credits

Teacher candidates survey a variety of reading instruction and phonemic practices. Emphasis is placed on the five elements of reading: phonics, phonemic awareness, fluency, vocabulary, and comprehension. This survey prepares the teacher candidate to plan and evaluate effective reading instruction that optimizes student learning. Effective communication techniques are reviewed and practiced with a variety of audiences teacher candidates may encounter in a classroom. Practicum/field experience hours: 10. Fingerprint clearance required.

REA-410: Assessment and Remediation of Reading Proficiency 4 credits

Teacher candidates participate in introductory studies of assessment systems for students in the classroom, identifying reading difficulty and remediation options. Candidates will employ the assessment process to identify reading needs in the five essential components of literacy, and implement remediation strategies. Candidates will review assessment tools and communicate assessment results to a variety of audiences. Practicum/field experience hours: 10. Fingerprint clearance required.

REA-420: Research-Based Reading Development and Interventions 4 credits

Teacher candidates develop deeper understanding of assessment strategies and instructional procedures, curriculum, and instructional alternatives, and program planning for the literacy development of students with reading and/or writing disabilities, including dyslexia. This course will address specific reading development issues, and strategies that support struggling readers. The course will focus on how, as a teacher, to participate in tiered support systems and facilitate/provide appropriately focused and intensive literacy instruction. Practicum/field experience hours: 10. Fingerprint clearance required.

REA-460: Diagnosis and Remediation of Reading Proficiencies 4 credits

Teacher candidates study the implications of reading disabilities, assessment procedures, and methods for correction. Formal and informal assessment procedures will be examined and applied in practice. Candidates will explore the use of performance data as a part of the assessment cycle to support the diagnosis and remediation process. Teacher candidates build on this foundational knowledge in the evaluation of abilities and achievement in the area of literacy. Practicum/field experience hours: 10. Fingerprint clearance required. Practicum/field experience hours: 10. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

REA-500: Foundations in Language and Literacy 3 credits

Reading/Literacy specialist candidates survey the theoretical and evidence-based foundations of reading and writing processes and instruction. This survey includes an exploration of historical through current reading and writing development, processes, and components. Reading/literacy specialist candidates are introduced to ethical and professional roles. Practicum/field experience hours: None. Fingerprint clearance not required. Practicum/field experience hours: None. Fingerprint clearance not required.

REA-510: Survey of Reading Assessments 3 credits

Reading/Literacy specialist candidates survey a variety of assessment tools and related practices. This survey prepares the reading/literacy specialist to plan and evaluate effective reading and writing instruction that optimizes student learning. In addition, the reading/literacy specialist candidates develop effective communication techniques. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-500. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-500.

REA-515: Advanced Studies in Reading Assessment Systems 3 credits

Reading/literacy specialist candidates engage in advanced studies of assessment systems to develop, select, and interpret data at the building and district level. This advanced study of assessment information is used to plan and evaluate curriculum and instruction at the building and district level. In addition, the reading/literacy specialist candidates communicate assessment results to a variety of audiences. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-510. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-510.

REA-520: Introductory Instructional Methods for Elementary Reading and Writing 3 credits

Reading/Literacy specialist candidates survey instructional approaches and materials that support student learning in reading and writing. This survey prepares the reading/literacy specialist candidates to design an integrated, comprehensive, and balanced curriculum. Practicum/field experience hours: 10. Fingerprint clearance required. Practicum/field experience hours: 10. Fingerprint clearance required.

REA-525: Introductory Instructional Methods for Secondary Reading and Writing 3 credits

Reading specialist/literacy coach candidates survey instructional approaches and materials that support student learning in reading and writing. This survey prepares the reading specialist/literacy coach candidates to design an integrated, comprehensive, and balanced curriculum. Practicum/field experience hours: 10. Fingerprint clearance required.

REA-540: Advanced Studies in Methods for Elementary Content Reading and Writing 3 credits

Reading specialist/literacy coach candidates engage in advanced studies of instructional approaches and materials at the building and district level that support student learning in reading and writing across content areas. From this advanced study, the reading specialist/literacy coach candidates design an integrated, comprehensive, and balanced curriculum. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-520.

REA-545: Advanced Studies in Methods for Secondary Content Reading and Writing 3 credits

Reading specialist/literacy coach candidates engage in advanced studies of instructional approaches and materials at the building and district level that support secondary students' learning in reading and writing across content areas. From this advanced study, the reading specialist/literacy coach candidates design an integrated, comprehensive, and balanced curriculum. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-525.

REA-550: Literate Environments 3 credits

Reading/Literacy specialist candidates create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-515.

REA-560: Professional Learning and Leadership in Literacy 3 credits

Reading specialist/literacy coach candidates survey professional learning and leadership models for promoting literacy, emphasizing positive dispositions, individual and collaborative learning, the ability to design and evaluate professional learning experiences, the importance of advocacy, and a need for knowledge about adult learning and school leadership. From this survey, reading specialist/literacy coach candidates demonstrate and facilitate professional learning and leadership as a career-long effort and responsibility. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-550.

REA-570^Ω: Elementary Practicum in Reading 3 credits

The practicum experience requires reading specialist/literacy coach candidates to implement literacy intervention instruction that is designed to meet the specific needs of students and engage in research and analysis to support compilation and creation of a Literacy Work Sample (LWS). In addition, the candidates coach and provide support to other teachers to think reflectively about improving student learning and implementing various instructional practices. Practicum/field experience hours: 75. Fingerprint clearance required. Prerequisite: REA-540.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

REA-580^Ω: Secondary Practicum in Reading 3 credits

The practicum experience requires reading/literacy specialist candidates to implement literacy intervention instruction at the secondary level that is designed to meet the specific needs of students and engage in research and analysis to support compilation and creation of a Literacy Work Sample (LWS). In addition, the candidates provide support to other teachers to think reflectively about improving student learning and implementing various instructional practices. Practicum/field experience hours: 75. Fingerprint clearance required. Prerequisite: REA-545.

Research (RES)

RES-811^Ω: Introduction to Advanced Graduate Studies and Scholarship 3 credits

This course introduces students to the principal elements of research and scholarly writing. Learners explore approaches to synthesizing literature and the application of the major components of APA form and style, and learn to coordinate literature searches. Furthermore, they learn how to discern principal arguments, analyze research questions, and clearly identify the key scholarly attributes to journal articles and other sources of scholarly data. This course also introduces learners to the University's overarching values and beliefs regarding research and the responsibility scholars have in continuing a tradition of contributing to an ever-growing body of knowledge.

RES-825^Ω: Theories of Inquiry 3 credits

The course provides an overview of the approaches to inquiry and the methods applied to gain knowledge of the human condition including epistemology and hermeneutic interpretation. These approaches and methods are contrasted with those applied to inquiry in the natural sciences. Consideration is given to the broader social and cultural components that contribute to the refinement of existing knowledge and the creation of new knowledge in the social and human sciences.

RES-845^Ω: Statistics 3 credits

This course provides a study of theories of probability, descriptive and inferential analyses of data, and testing of statistical hypotheses. Practical experience is provided in the application of statistical methods.

RES-850^Ω: Foundations for Research 3 credits

This course provides a broad overview of foundational elements for conducting independent, original research. Qualitative, quantitative, and mixed research methods are introduced and applied. The template for developing a research prospectus is also introduced, with emphasis on identifying a researchable topic related to the learners' degree specialization. Prerequisite: RES-811.

RES-855^Ω: Qualitative Research Methods 3 credits

This course provides students with an overview of qualitative methods and offers students the opportunity to apply and interpret qualitative research. Topics include data collection, data analysis, appropriate qualitative inquiry, and theories of qualitative methods.

RES-861^Ω: Analysis of Existing Research 3 credits

This course is designed to train learners in the conduct of a systematic literature review related to their research topic. Emphasis is placed on creating structure for reading, analyzing, synthesizing, and organizing prior research necessary for drafting the first iteration (draft) of Chapter 2 of the dissertation. Learners use the research prospectus template to guide the development of their Chapter 2. Prerequisite: RES-850 or MGT-810 or RES-825.

RES-865^Ω: Research Design and Methods 3 credits

In order to explore research findings, scholars must be clear in their explanation of the steps that were taken to gather the data. This course examines the choices a scholar must make when choosing a methodology and the impact those approaches have on the study and the results. The course also reviews research methods and discusses criteria to be considered in the choice of data collection methods, including the consideration of interactive methods for the collection of qualitative data (interview and focus groups), quantitative data (survey, experiment), and mixed methods. This course provides exposure to the basic concepts and tools that leadership students and practitioners need in order to understand and analyze data and to utilize research findings in decision making and problem solving. Prerequisite: RES-861.

RES-866^Ω: Approaches to Research Design and Data Analysis 3 credits

This course provides learners with an overview of qualitative, quantitative, and mixed methods approaches with emphasis on conceptual and practical aspects of data collection, management, and analysis. Learners use their research prospectus to align the research question(s) and variables of interest with the appropriate data collection and analytical techniques. Prerequisite: RES-861.

RES-871^Ω: Developing the Formal Proposal 3 credits

The best researchers know how to strategically define their research agenda with the necessary clarity to inform the scholarly community and to establish a blueprint for analysis and replication. In this course, learners focus on these issues by exploring development of chapter 1 of their dissertation proposal. Learners are asked to create a problem statement; identify research questions and/or hypotheses; identify the data required to answer those questions; summarize the methodology they will use to investigate the problem; and provide a discussion of the study's significance and purpose, limitations/delimitations and assumptions, operational definitions, and an introduction to the problem as well as a summary of the chapter in order to demonstrate their understanding of effective research application. The development of this knowledge will result in the formation of the learner's dissertation proposal. Prerequisites: One of the following combinations: 1) RES-862; or 2) RES-861 and RES-865.

RES-880^Ω: Formalizing the Research Prospectus 3 credits

Learners complete a cogent research prospectus as the foundation for their dissertation research proposal. Emphasis is placed on fully articulating a study design and methodology that is aligned with the research questions and developing the first iteration (draft) of Chapter 3 of the dissertation. Prerequisite: RES-855 or RES-866.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

RES-885^Ω: Developing the Research Proposal 3 credits

In this course, learners formalize their research proposal specific to their topic. Emphasis is placed on fully developing Chapter 1 and incorporating Chapters 2 and 3 (drafts) from previous research courses. This proposal becomes the first three chapters of the dissertation upon approval of the final draft by the College of Doctoral Studies. Prerequisite: RES-880.

Residency (RSD)

RSD-851^Ω: Residency: Dissertation 3 credits

This residency allows learners to continue developing their skills as academic researchers. Learners will have hands-on experience applying quantitative and qualitative design principals to develop the foundational elements for their potential dissertation studies.

RSD-881^Ω: Residency: Presentation of Progress or Results 3 credits

This residency prepares students to present their scholarly work and to thoughtfully critique the work of others. Students orally present papers developed in their own classes and respond to questions from colleagues. Students are further prepared to become active members in academic communities by learning how to review papers and provide comments.

RSD-951^Ω: Residency: Dissertation Intensive Seminar 3 credits

This intensive seminar focuses on development of the dissertation proposal and the creation of forward momentum toward completion of the dissertation. Learners will receive specific personal guidance in these endeavors.

RSD-952^Ω: Residency: Dissertation Intensive Seminar 0 credits

This intensive seminar focuses on development of the dissertation proposal and the creation of forward momentum toward completion of the dissertation. Learners will receive specific personal guidance in these endeavors.

Science (SCI)

SCI-150[♦]: Critical Analyses in Science 4 credits

This course provides an introduction to the analysis skills required for scientific problems. Students will study approaches on inquiry, reasoning, and logic as applied to science, the systematic use of data to make critical decisions, and the expectations of science careers in healthcare or research.

SCI-210[♦]: Historical Landmarks in the Natural Sciences 2 credits

This course provides a chronological overview of the most impactful discoveries in the history of the various Natural Science disciplines. Contemporary scientific practice is analyzed in light of this historic framework.

SCI-211[♦]: Paradigm Shifts in the Natural Sciences 2 credits

This course provides students with a thorough understanding of the revolutionary theories and paradigm shifts in the Natural Sciences. Historical, societal and philosophical contexts of these revolutionary ideas are analyzed in depth.

SCI-220[♦]: Forensic Photography & Reconstruction 4 credits

This course is designed to introduce students to the use of digital cameras in crime scene documentation and reconstructing the events of a crime based on the evidence recovered from the scene. In the first half of the course, students will learn how to manually operate digital cameras and how to photograph different types of crime scenes and evidence under various conditions. In the second half, students will reconstruct the events of a crime using the scene evidence, basic evidence processing, and deductive logic.

SCI-255[♦]: Crime Scene Processing 3 credits

This course focuses on the logic and critical analysis of assessing and reconstructing crime scenes. Topics covered include the use of techniques such as photography, rough sketch, refined sketch, CAD programs, evidence-based crime scene reconstruction, and thorough report writing. Topics such as evidence processing, maintaining chain of custody, court testimony, and the ethical considerations in forensic work are also covered. Co-Requisite: SCI-255L.

SCI-255L[♦]: Crime Scene Processing Lab 1 credits

Students use critical/ logical thinking skills to reconstruct a variety of crime scenes and then record the crime scene using a variety of methods. Accurate presentations of crime scenes are evaluated as a measure of quality assurance and are required for successful completion of the course. Students must refine a crime scene rough sketch to a detailed (refined) sketch and produce a written report of the crime scene processing that occurred. Co-Requisite: SCI-255.

SCI-300L: Laboratory Safety and Supervision 1 credits

This course surveys accepted safety principles in classroom laboratories and their impact on the learning environment. Students design a capstone lab learning unit in a science discipline that incorporates proper lab safety protocols.

SCI-318[♦]: Research Methods & Design 2 credits

This course reviews and reinforces the fundamental components of the scientific method. Emphasis will be placed on analysis of scientific literature, with discussion of hypotheses, experimental design, results, and possible alternative explanations and experiments. Students will learn to critically review current scientific literature and apply these examples to the proper design of novel experiments. Prerequisites: BIO-181 and BIO-181L.

SCI-330[♦]: Physical Evidence Analysis 3 credits

Students explore the fundamentals of evidentiary recovery of materials at crime scenes, methods for analysis of evidence at the scene and in the crime laboratory, maintaining a chain of custody, and quality assurance. Emphasis is placed on analytical and comparative analyses conducted at the crime laboratory. Prerequisite: SCI-255 & SCI-255L. Co-Requisite: SCI-330L.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SCI-330L[♦]: Physical Evidence Analysis Lab 1 credits

The laboratory section of SCI-330 reinforces and expands learning of principles introduced in the lecture course. The laboratory focuses on the collection and laboratory analysis of various types of forensic evidence that are commonly encountered at crime scenes. Prerequisite: SCI-255 & SCI-255L. Co-Requisite: SCI-330.

SCI-480: Methods of Teaching Science in Secondary Schools 4 credits

This course is designed to acquaint the secondary teacher with the curriculum and effective pedagogical techniques for the teaching of science. Learners demonstrate understanding of key science concepts and apply research-based strategies and approaches to unit design and lesson planning, utilizing instructional models discussed in the course. This course includes laboratory experiences through field experiences. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SEC-450.

SCI-492A^Ω: Internship I 2 credits

This internship provides an opportunity for students to practice principles learned in their science major, functional area, or field of study, or to observe in an area being considered for graduate or professional school. Prerequisite: College approval.

SCI-492B^Ω: Internship II 2 credits

This internship provides an opportunity for students to practice principles learned in their science major, functional area, or field of study, or to observe in an area being considered for graduate or professional school. Prerequisites: SCI-492A and college approval.

SCI-495^{Ω♦}: Capstone Project in the Sciences 4 credits

The capstone project is a culmination of the learning experiences while a student in the science programs at Grand Canyon University. Students discuss and write on current topics in their field and prepare an extensive written scientific report or proposal on select topics on the sciences, relevant to their program of study. The capstone project needs to reflect synthesis and integration of course content and good scientific practice. This is a writing intensive course. Prerequisite: Senior status.

SCI-498^{ΩΩ}: Senior Capstone in Forensic Science 4 credits

The writing intensive, capstone course provides an opportunity for students to make contact with practitioners, investigate special topics or specific areas of interest in forensic science, and potentially participate in hands-on application through research or internship experiences. Students are expected to address a critical issue in evidence and forensic science. Skills in critical thinking, analysis, and application of learned material are key to success in this course. As part of the final process, students must prepare a written report and orally present their findings in an end-of-course seminar that is open to the public. Prerequisite: Senior status.

Supply Chain Management (SCM)

SCM-400^A: Global Supply Chain Operations 4 credits

This course provides an introduction to the theories and practices of global supply chain and operations management, as well as an understanding of basic tools and methods of managing operations and supply chains. Students apply critical thinking skills to solve business problems using industry-accepted operations management techniques. Prerequisite: BUS-352.

SCM-410: Lean and Quality Management 4 credits

This course examines quantitative and qualitative continuous process improvement techniques, including statistical process control (SPC), Six Sigma, and lean, and managing change with improvement initiatives. Students identify a project, apply the correct tools, and manage a process improvement project. Prerequisite: BUS-352.

SCM-450: Procurement and Global Supply Chain Management 4 credits

This course covers the concepts of purchasing, inventory management, and logistics in a supply chain. Students focus on both upstream and downstream activities related to the full supply chain cycle, including contracting and negotiating activities. Prerequisites: BUS-352 and SCM-400.

SCM-452: Global Logistics and Transportation Management 4 credits

This course focuses on managing both inbound and outbound transportation of materials and finished goods domestically and internationally. Students learn and apply logistics models and tools to solve distribution problems in the supply chain. Prerequisites: BUS-352, MAT-154, and SCM-400.

SCM-454: Manufacturing Planning and Control Systems 4 credits

This course focuses on the tactical use of planning and control tools and systems to effectively manage resources in a manufacturing operation as part of a supply chain. Students examine the overall function of planning and control systems with detailed application of management tools within the production life cycle. Prerequisites: : BUS-352, SCM-400, SCM-410, and SCM-450.

SCM-460: Supply Chain Modeling and Analysis 4 credits

This course exposes students to the basic requirements of designing and operating supply chains using a variety of quantitative models for analysis. This course emphasizes application, development, and analysis of mathematical models in different supply chain scenarios to solve business problems. Prerequisites: BUS-352, SCM-400, SCM-452, and SCM-454.

School Counseling (SCN)

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SCN-501^Ω: Introduction to Graduate Studies and Foundations of School Counseling 3 credits

This course begins by acquainting counseling interns with the GCU learning management system, while preparing them to be successful graduate-level counseling interns and future school counselors. Beginning with the history of school counselors, counseling interns then explore and self-reflect on the needed traits to be effective school counselors in a PK-12 setting. An introductory discussion on ethics, credentialing and licensure, and professional organizations, particularly the American School Counseling Association (ASCA), rounds out the course. Practicum/field experience hours: None. Fingerprint clearance not required.

SCN-505^Ω: Organization and Administration of a School Counseling Program 3 credits

This course presents an overview for developing, implementing, and maintaining a school counseling program in the PK-12 setting. Theoretical frameworks of comprehensive school counseling programs are introduced, including a specific focus on the American School Counseling Association (ASCA) National Model for developing a comprehensive school counseling program. Topics include multicultural organizational development, school-based consultation, working in multidisciplinary teams, ethical and legal issues, and advocacy leadership. Practicum/field experience hours: 5. Fingerprint clearance required.

SCN-510^Ω: Counseling for College and Career 3 credits

This course emphasizes the vital role school counselors play in helping students envision their post-secondary school careers. Theoretical models of career counseling are presented, as well as the development of comprehensive, holistic career development programs; career exploration strategies for PK-12 students; and the utilization of career selection tools and materials. Ethical and legal considerations are also explored, including special considerations for meeting the needs of specific populations within the PK-12 school settings. Practicum/field experience hours: 10. Fingerprint clearance required.

SCN-600^Ω: School Counseling Practicum 3 credits

This course is a supervised field experience that takes place in either an elementary, middle, or high school setting. During this experience, learners begin by observing day-to-day counseling routines and have the ability to apply listening skills, helping theories, and techniques. The practicum is performed under the supervision of a faculty member and a clinical site supervisor approved by the college or university. Documentation of 100 hours (40 of the 100 hours must be direct service) of school counseling related activities is submitted directly to the College of Education's Office of Clinical Field Experience for verification and tracking. State licensure requirements may mandate additional hours. Counseling interns must review and adhere to their state board's additional requirements. Practicum/field experience hours: 100. Fingerprint clearance required. Prerequisites: SCN-505; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

SCN-605^Ω: School Counseling Internship I 3 credits

In this internship course, counseling interns engage in comprehensive work where they engage in direct service contact with students, families, and school personnel. The internship is performed under the supervision of a faculty member and a clinical site supervisor approved by the college or university. Documentation of 200 hours (80 of the 200 hours must be direct service) of school counseling related activities is submitted directly to the College of Education's Office of Field Experience for verification and tracking. State licensure requirements may mandate additional hours. Counseling interns must review and adhere to their state board's additional requirements. Practicum/field experience hours: 200. Fingerprint clearance required. Prerequisites: SCN-600; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

SCN-610^Ω: Contemporary Issues in School Counseling 3 credits

This course provides an overview of current issues facing school counselors in the PK-12 setting. Strategies for addressing various problems are explored. Topics include bullying and violence prevention, supporting impoverished and marginalized students, and the increasing role of data and accountability in schools, among others. Counseling interns explore these present and pressing issues and determine their roles as responsive and flexible professionals in addressing issues as they occur. Practicum/field experience hours: 5. Fingerprint clearance required.

SCN-615^Ω: School Counseling Internship II 3 credits

In this internship course, learners engage in comprehensive work where they engage in direct service contact with students, families, and school personnel. The internship is performed under the supervision of a faculty member and an on-site supervisor approved by the college or university. Documentation of 200 hours of school counseling related activities is submitted directly to the College of Education's Office of Field Experience for verification and tracking. State licensure requirements may mandate additional hours. Candidates must review and adhere to their state board's additional requirements. Practicum/field experience hours: 200. Fingerprint clearance required. Prerequisites: SCN-605; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

SCN-620^Ω: Educational Tests and Measurements 3 credits

This course provides an overview of various tests and measurements commonly used in education. Beginning with basic statistical concepts, counseling interns explore how assessments can inform education and counseling practices. Topics cover aspects of creation, administration, and interpretation of various assessments in PK-12 setting, including discussions of standardized tests, intelligence and aptitude tests and college and career assessments. Practicum/field experience hours: 5. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SCN-625^Ω: School Counseling Internship III 3 credits

In this internship course, learners engage in comprehensive work where they have the opportunity to engage in direct service contact with students, families, and school personnel. The internship is performed under the supervision of a faculty member and a clinical site supervisor approved by the college or university. Documentation of 200 hours (80 of the 200 hours must be direct service) of school counseling related activities is submitted directly to the College of Education's Office of Field Experience for verification and tracking. State licensure requirements may mandate additional hours. Candidates must review and adhere to their state board's additional requirements. Practicum/field experience hours: 200. Fingerprint clearance required. Prerequisites: SCN-615; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million; and college approval.

Secondary Education (SEC)

SEC-201[♦]: Early Adolescent and Adolescent Psychology 4 credits

This course is designed to assist teacher candidates in understanding theories and principles of psychology that describe the growth and development of early adolescents and adolescents, including cognitive, linguistic, social, emotional, and physical areas. This course enables teacher candidates to build foundational knowledge for constructing learning opportunities and environments that support individual students' development, acquisition of knowledge and skills, and motivation. Practicum/field experience hours: 5. Fingerprint clearance not required.

SEC-345: Content Area Literacy for Middle and Secondary Teachers 4 credits

In this course, teacher candidates evaluate and utilize methods and materials for reading and writing in order to teach literacy skills in the middle and secondary grades. Emphasis is placed on making meaning from a variety of text sources including young adult literature, technical, informational, environmental, and media. Candidates design content-based reading and writing experiences using diverse works for adolescents, focused text selection, and electronic database media resources for middle- and secondary-grade classrooms. A focus on language and cultural diversity is included. Practicum/field experience hours: 15. Fingerprint Clearance required.

SEC-355: Middle and Secondary Curriculum and Assessment 4 credits

In this course, teacher candidates differentiate instruction based on knowledge of students, learning theory, and curricular goals. Major emphasis is given to planning instructional objectives and lessons, sequencing, and assessing objectives, utilizing formal and informal assessment strategies that address individual students' needs. Practicum/field experience hours: 5. Fingerprint clearance required. Prerequisite: SEC-201.

SEC-450: Data-Driven Instructional Methods for Middle and Secondary Teachers 4 credits

In this course, teacher candidates study methods and materials related to teaching middle- and secondary-grade students. Emphasis is placed on using data to evaluate and modify instruction. Teaching methodologies encourage problem solving, active participation, meeting diverse students' needs, and professional collaboration. Practicum/field experience hours: 15. Fingerprint Clearance required. Prerequisite: SEC-355.

SEC-455: Classroom Engagement and Management for Middle and Secondary Teachers 4 credits

This course prepares teacher candidates to create and manage positive, productive middle- and secondary-grade classroom environments with diverse students. Candidates develop a comprehensive understanding of the learning and behavior principles that underlie effective classroom management and student engagement in order to design and promote an effective classroom management program. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: SEC-201.

SEC-490^Ω: Student Teaching for Secondary Education 8 credits

Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Evaluation of Performance (STEP). Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

SEC-501^Ω: Foundations in Education for Graduate Studies 3 credits

Teacher candidates will survey the philosophical, historical, and sociological influences upon which educational theories and practices are constructed and explore a variety of the common issues, trends, and opportunities that professional educators face in the field. Candidates will prepare for the graduate learning experience at Grand Canyon University by developing and strengthening the skills necessary to succeed as graduate students in the College of Education. Practicum/field experience hours: 2. Fingerprint clearance not required.

SEC-502: Foundations in Secondary Education for Graduate Students 3 credits

Teacher candidates will survey the philosophical, historical, and sociological influences upon which secondary educational theories and practices are constructed and explore a variety of the common issues, trends, and opportunities that professional educators face in the field. Candidates will prepare for the graduate learning experience at Grand Canyon University by developing and strengthening the skills necessary to succeed as graduate students in the College of Education. Practicum/field experience hours: None. Fingerprint clearance not required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SEC-505: Adolescent Development and 3 credits
Psychology

Teacher candidates will survey how adolescents grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, social/emotional, and physical areas. This survey of the seminal concepts, principles, theories, and research related to development of adolescents will allow candidates to build foundational knowledge for constructing learning opportunities that support individual students' development, acquisition of knowledge, and motivation. Practicum/field experience hours: 15. Fingerprint clearance not required. Prerequisite: SEC-501.

SEC-506: Early Adolescent and Adolescent 3 credits
Psychology

Teacher candidates will survey how early adolescents and adolescents grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, social/emotional, and physical areas. This survey of the seminal concepts, principles, theories, and research related to development of adolescents will allow candidates to build foundational knowledge for constructing learning opportunities that support individual students' development, acquisition of knowledge, and motivation. Practicum/field experience hours: None. Fingerprint clearance not required. Prerequisite: SEC-501 or SEC-502.

SEC-507: Child and Adolescent Development 3 credits
and Psychology

Teacher candidates will survey how adolescents grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, social/emotional, and physical areas. This survey of the seminal concepts, principles, theories, and research related to development of adolescents will allow candidates to build foundational knowledge for constructing learning opportunities that support individual students' development, acquisition of knowledge, and motivation. Practicum/field experience hours: 6. Fingerprint clearance not required.

SEC-510: Creating and Managing Engaging 3 credits
Learning Environments

This course is designed to allow the teacher candidate the opportunity to learn techniques involved in the successful engagement and management of a learning environment. Major emphasis is placed to the establishment of a realistic discipline plan to manage student behavior, as well as engagement and management techniques and strategies to maximize instructional time, classroom procedures, and physical space. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SEC-501 or SEC-502.

SEC-515: Assessment and Evaluation for 3 credits
Middle and High School Teachers

Teacher candidates will investigate multiple methods of assessment that support student engagement, monitoring student progress, and guiding decision-making. Candidates will build foundational knowledge regarding formal and informal assessment strategies for planning, evaluating, and strengthening instruction to promote continuous intellectual, social, emotional, and physical development of each student. Practicum/field experience hours: 15. Fingerprint clearance required.

SEC-516: Assessment and Evaluation for 3 credits
Humanities Teachers

Teacher candidates will investigate multiple methods of assessment that support student engagement, monitor student progress, and guide decision-making, specifically to Humanities classrooms. Candidates will build foundational knowledge regarding formal and informal assessment strategies for planning, evaluating, and strengthening instruction to promote continuous intellectual, social, emotional, and physical development of each student. Practicum/field experience hours: 10. Fingerprint clearance required.

SEC-517: Assessment and Evaluation for 3 credits
STEM Teachers

Teacher candidates will investigate multiple methods of assessment that support student engagement, monitor student progress, and guide decision-making, specifically to STEM classrooms. Candidates will build foundational knowledge regarding formal and informal assessment strategies for planning, evaluating, and strengthening instruction to promote continuous intellectual, social, emotional, and physical development of each student. Practicum/field experience hours: 10. Fingerprint clearance required.

SEC-520: Integrating STEM Methods for 3 credits
Middle and High School
Instruction

Teacher candidates examine fundamental concepts of science, technology, engineering, and mathematics. Teacher candidates build foundational knowledge on a variety of age-appropriate inquiry-based instructional strategies to teach science, to build student understanding of personal and social applications, to convey the nature of science, and student development for the practice of skills that contribute to good health. Emphasis is placed on developing a deep understanding of the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability and to build skills to apply knowledge in meaningful ways. Teacher candidates will build foundational knowledge on integrating engineering and technology concepts in Math and Science curriculum. Practicum/field experience hours: 12. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SEC-525: Methods and Strategies for Middle 3 credits
and High School Teachers

This course is designed to foster application of proven teaching and learning methodologies for both instructor and student in order to make appropriate and data-driven decisions about all aspects of teaching. Major emphasis is focused on planning instructional objectives and lessons, assessing objectives, and developing teaching methodology that encourages problem solving, active participation, and assessment. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SEC-515 or SEC-516 or SEC-517.

SEC-530: Integrating Humanities Methods 3 credits
for Middle and High School
Instruction

Teacher candidates examine a variety of instructional strategies to encourage students to develop a deeper understanding of the major concepts contained within Social Studies, English Language Arts, and the Arts through modes of inquiry from the integrated study of history, geography, the social sciences, reading, writing, oral language, and their influences that build skills to apply knowledge in meaningful ways. Teacher candidates integrate instructional content, academic functions, formative and summative assessments, media and technology to engage learning. Teacher candidates apply their foundational knowledge of reading, language, and child development to teach reading, writing, speaking, viewing, listening, and comprehension skills to middle and high school students. Candidates also help these students successfully apply their developing skills to different situations, materials, and ideas. Practicum/field experience hours: 12. Fingerprint clearance required.

SEC-540: Adolescent Literacy 3 credits

This course is designed to develop a broad range of research-based reading methodologies to enhance the learning strategies of middle and secondary school students. Major emphasis is placed on the use of reading strategies for culturally and socially diverse classrooms, including the use of literacy-based instruction in all content areas and understanding, evaluating, and promoting effective pedagogy in adolescent literacy. The development and use of integrated and thematic approaches of instruction are addressed. Teacher candidates are expected to observe and assist in a grade 5-12 classroom while taking this course. Practicum/field experience hours: 15. Fingerprint clearance required.

SEC-542: Instruction in Adolescent Literacy 3 credits

This course is designed to develop a broad range of research-based reading methodologies to enhance the learning strategies of middle and secondary school students. Major emphasis is placed on the use of reading strategies for culturally and socially diverse classrooms, including the use of literacy-based instruction in all content areas and understanding, evaluating, and promoting effective pedagogy in adolescent literacy. The development and use of integrated and thematic approaches of instruction are addressed. Teacher candidates are expected to observe and assist in a grade 7-12 classroom while taking this course. Practicum/field experience hours: 6. Fingerprint clearance required.

SEC-580: Curriculum and Instructional 3 credits
Planning for Middle and High
School Teachers

Various orientations to curriculum development and assessment are investigated and elements of model curricula are examined. Emphasis is placed on understanding current structures and trends in high schools, as well as critical issues, as these relate to curriculum and assessment. Course content is strategically planned to enable participants to make informed curriculum decisions to meet the needs of a diverse student population. Also emphasized is the alignment of educational objectives to standards and building both formative and summative assessments, including rubrics to analyze student learning. This course focuses on the principles and practices involved in curriculum design. Teacher candidates develop their own curriculum unit. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SEC-540.

SEC-581: Middle and Secondary Curriculum 3 credits
and Instruction for Humanities
Teachers

Various orientations to curriculum development and assessment are investigated and elements of model curricula are examined specific to the areas of Humanities. Emphasis is placed on understanding current structures and trends in middle and high schools, as well as critical issues, as these relate to curriculum and assessment. Course content is strategically planned to enable participants to make informed curriculum decisions in Humanities classrooms to meet the needs of a diverse student population. Also emphasized is the alignment of educational objectives to standards and building both formative and summative assessments, including rubrics to analyze student learning. This course focuses on the principles and practices involved in curriculum design for Humanities classrooms. Teacher candidates develop their own curriculum unit. Practicum/field experience hours: 10. Fingerprint clearance required.

SEC-582: Middle and Secondary Curriculum 3 credits
and Instruction for STEM
Teachers

Various orientations to curriculum development and assessment are investigated and elements of model curricula are examined specific to the areas of STEM. Emphasis is placed on understanding current structures and trends in middle and high schools, as well as critical issues, as these relate to curriculum and assessment. Course content is strategically planned to enable participants to make informed curriculum decisions in STEM classrooms to meet the needs of a diverse student population. Also emphasized is the alignment of educational objectives to standards and building both formative and summative assessments, including rubrics to analyze student learning. This course focuses on the principles and practices involved in curriculum design for STEM classrooms. Teacher candidates develop their own curriculum unit. Practicum/field experience hours: 10. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SEC-590^Ω: Student Teaching: Secondary Education 8 credits

Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Evaluation of Performance (STEP). Fingerprint clearance required. Fingerprint clearance required.

Secondary Education (SED)

SED-435[♦]: Adolescent Literacy 4 credits

This course is designed to assist teacher candidates in understanding, evaluating, and implementing effective pedagogy in adolescent literacy. A graduate in adolescent literacy should be able to recognize and assess the defining elements of literacy, from decoding skills to higher level critical thinking applications. Subsequently, teachers should be able to understand, evaluate, and promote effective literacy pedagogy as it relates to the adolescent learner. Practicum/field experience hours: 30. Fingerprint clearance required.

SED-444: Secondary Methods and Data Driven Pedagogy 4 credits

This course is designed to help teachers and prospective teachers of young adults find their own teaching styles and recognize the different learning styles of their students in order to make appropriate decisions about all aspects of the teaching profession. Emphasis is given to teaching methodology that encourages problem solving, active participation, and assessment. Course content is strategically planned to enable participants to make informed educational decisions about student learning based on data. This course focuses on the principles and practices involved in various models of educational assessment, evaluation, and testing. Practicum/field experience hours: 30. Fingerprint clearance required.

SED-454: Reading and Learning Strategy for Middle and Secondary Schools 4 credits

This course develops a broad range of reading (from decoding skills to higher level critical thinking applications), teaching, and learning strategies to effectively enhance the learning of middle and secondary school students. A major emphasis is given to utilization of these strategies in the midst of today's socially and culturally diverse classrooms. Subsequently, teachers should be able to understand, evaluate, and promote effective adolescent literacy pedagogy. Practicum/field experience hours: 30. Fingerprint clearance required. Prerequisites: EDU-230, and one of the following: EDU-215 or EDU-210.

SED-455: Secondary Curriculum Development and Assessment 4 credits

In this study of secondary school curriculum development, major emphasis is given to planning instructional objectives and lessons, assessing objectives, and developing a model curriculum. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisite: SED-444.

SED-480NA^Ω: Student Teaching: Secondary Session A 6 credits

Session A is one of two 8 week sessions of the student teaching experience. Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Performance of Evaluation (STEP). Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; senior status; a 2.8 GPA; successful completion of state mandated basic skills and content area exams or Praxis I® (Basic Skills) and Praxis II® (Content Area); and approval and placement by Office of Clinical Practice. Arizona residents will be required to take the Arizona Educator Proficiency Assessment (AEPa). All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

SED-480NB^Ω: Student Teaching: Secondary Session B 6 credits

This session is a continuation of Session A. Prerequisite: SED-480NA.

SED-482: Methods of Teaching Mathematics in Secondary Schools 4 credits

This course is designed to develop an understanding and ability to apply the methods and principles of effective instruction using mathematics in the secondary classroom. This course examines different learning modalities, instructional strategies, and the use of technology to help design and deliver effective lessons that are aligned to standards and increase student achievement. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SED-444.

SED-483: Methods of Teaching Science in Secondary Schools 4 credits

This course is designed to acquaint the secondary teacher with the curriculum and effective pedagogical techniques for the teaching of science. Learners demonstrate understanding of key science concepts and apply research-based strategies and approaches to unit design and lesson planning, utilizing instructional models discussed in the course. This course includes laboratory experiences through field experiences. Practicum/field experience hours: 15. Fingerprint clearance required.

SED-485: Methods of Teaching Social Studies in Secondary Schools 4 credits

This course examines different learning modalities, instructional strategies, and the use of technology to help design and deliver effective social studies lessons that are aligned to standards and increase student achievement. Adolescent-based literacy and pedagogy are used to promote social studies content knowledge. Practicum/field experience hours: 30. Fingerprint clearance required. Prerequisite: SED-444.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SED-580NA^Ω: Student Teaching: Secondary Session A **6 credits**

Session A is the first of two 8-week sessions of the student teaching experience that includes practical classroom experiences, research and analysis, and teaching to support compilation and creation of a Teacher Work Sample (TWS). Fingerprint clearance required. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; senior status; a 3.0 GPA; successful completion of state mandated basic skills and content area exams or Praxis I® (Basic Skills) and Praxis II® (Content Area); and approval and placement by Office of Clinical Practice. Arizona residents will be required to take the Arizona Educator Proficiency Assessment (AEPA). All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

SED-580NB^Ω: Student Teaching: Secondary Session B **6 credits**

This session is a continuation of Session A. Prerequisite: SED-580NA.

Sociology (SOC)

SOC-100[♦]: Everyday Sociology **4 credits**

This course surveys concepts, theories, and methods of applied sociology in everyday life. Emphasis is placed on demonstrating the impact of sociological concepts on human behaviors and interactions in society.

SOC-102[♦]: Principles of Sociology **4 credits**

This course presents a survey of the concepts, theories, and methods used by sociologists to describe and explain the effects of social structure on human behavior. It emphasizes the understanding and use of the sociological perspective in everyday life.

SOC-102XV: Principles of Sociology **4 credits**

This course presents a survey of the concepts, theories, and methods used by sociologists to describe and explain the effects of social structure on human behavior. It emphasizes the understanding and use of the sociological perspective in everyday life.

SOC-220[♦]: Social Problems **4 credits**

This course provides a survey of the various issues and problems faced by contemporary American society, including crime, drug abuse, sexual variance, poverty, overpopulation, and family relations. Emphasis is placed upon how these problems arise from and are perpetuated by modern social structure.

SOC-220XV: Social Problems **4 credits**

This course provides a survey of the various issues and problems faced by contemporary American society, including crime, drug abuse, sexual variance, poverty, overpopulation, and family relations. Emphasis is placed upon how these problems arise from and are perpetuated by modern social structure.

SOC-315[♦]: Cultural Anthropology **4 credits**

This course provides a study of the variety of cultures that have developed in human society. Attention is given to preliterate peoples in comparison with contemporary and other cultures. The origin and development of the cultures, their technologies, economies, social organizations, and beliefs are surveyed.

SOC-320[♦]: Marriage and Family **4 credits**

This course is designed as a practical look at marriage and family life with emphasis on understanding social science research on marriage and family life and its present and future applications to the lives of students.

SOC-320HN[♦]: Marriage and Family **4 credits**

This course is designed as a practical look at marriage and family life with emphasis on understanding social science research on marriage and family life and its present and future applications to the lives of students.

SOC-330[♦]: Globalization **4 credits**

This course integrates globalization concepts and theory with the social reality of the global world. The course leads the students to understand globalization's economic, cultural, political, environmental, and social inequality characteristics. Upon completion of the course students gain a definitional and conceptual framework of globalization and its mechanisms. The course places emphasis on the student as a global citizen. Students develop a beginning framework of analysis to engage their global world.

SOC-372[♦]: Introduction to Social Work **4 credits**

This course provides the foundation for students to understand the profession of social work, the social welfare system, and social service programs. Students examine the theoretical perspectives of social work and social welfare. They evaluate how historical and theoretical perspectives influence social service systems, practice, and programs. In a broad overview, students examine social work ethics, generalist practice, policy analysis and practice, social service programs, and advocacy.

SOC-386[♦]: Human Behavior and the Social Environment **4 credits**

This writing intensive course provides the foundation for the generalist practice of social work. It connects theories from a sociological, psychological, and social work perspective with an emphasis on social systems theory. Students examine person-environment interactions through a theoretical framework of critical assessment based on systems and roles. In this course, students apply a variety of theories to current social issues. Through the integration and application of social systems theory, students engage in competency-based skill development for generalist social work practice.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SOC-386HN^{Δ♦}: Human Behavior and the Social Environment 4 credits

This writing intensive course provides the foundation for the generalist practice of social work. It connects theories from a sociological, psychological, and social work perspective with an emphasis on social systems theory. Students examine person-environment interactions through a theoretical framework of critical assessment based on systems and roles. In this course, students apply a variety of theories to current social issues. Through the integration and application of social systems theory, students engage in competency-based skill development for generalist social work practice.

SOC-400^{Ω♦}: Social Research and Statistics 4 credits

This course provides an explanation of the various methods used by social scientists to find answers to the questions posed by their subject matter, including basic terminology and concepts and practice using methods such as surveys, experiments, field research, and evaluation research, as well as some unobtrusive methods. An introduction to analysis of data obtained from research is also included.

SOC-410♦: Social Inequality and Stratification 4 credits

This course provides an inquiry into the dynamics of hierarchies of power, wealth, and prestige within and among human social systems, with particular attention given to the causes and effects of marked inequality, especially with regard to the foundations and consequences of concentration of political and economic power.

SOC-410HN^{Δ♦}: Social Inequality and Stratification 4 credits

This course provides an inquiry into the dynamics of hierarchies of power, wealth, and prestige within and among human social systems, with particular attention given to the causes and effects of marked inequality, especially with regard to the foundations and consequences of concentration of political and economic power.

SOC-412♦: Sociology of Religion 4 credits

This course provides students with a framework to examine religious organizations as a part of a larger social order. It introduces basic concepts in the sociology of religion and briefly surveys the historical and social landscape of religion. The goal of the course is to analyze religious beliefs, practices, and organizations from a sociological perspective, with a primary focus on religion in the contemporary United States.

SOC-415♦: American Minority Peoples 4 credits

This course provides a study of the various minority groups in the United States and their sociological significance in the history of the nation and current culture. The history and status of American immigration policy are also considered.

SOC-417^{Δ♦}: Sociological Theory 4 credits

This writing intensive course is a survey of the major theorists whose works and thoughts have influenced and guided the academic discipline of sociology. The emphasis is placed on the founders of sociological theory from the 19th century but attention is also given to those who followed in their footsteps in the 20th and 21st centuries.

SOC-417HN^{Δ♦}: Sociological Theory 4 credits

This writing intensive course is a survey of the major theorists whose works and thoughts have influenced and guided the academic discipline of sociology. The emphasis is placed on the founders of sociological theory from the 19th century but attention is also given to those who followed in their footsteps in the 20th and 21st centuries.

SOC-436^{Δ♦}: Stratification and Inequality in a Diverse Society 4 credits

This writing intensive course examines the theoretical, historical, and conceptual frameworks of social stratification and social inequality within the context of class, race and ethnicity, and gender. Students analyze the effect of historical events upon social inequality and the impact of those events on current trends within social institutions. Students examine strategies for change relative to social inequality and marginalization of diverse groups. Upon course completion, students are able to explain and evaluate the effects of social stratification and inequality on class, race and ethnicity, and gender in the United States.

SOC-436HN^{Δ♦}: Stratification and Inequality in a Diverse Society 4 credits

This writing intensive course examines the theoretical, historical, and conceptual frameworks of social stratification and social inequality within the context of class, race and ethnicity, and gender. Students analyze the effect of historical events upon social inequality and the impact of those events on current trends within social institutions. Students examine strategies for change relative to social inequality and marginalization of diverse groups. Upon course completion, students are able to explain and evaluate the effects of social stratification and inequality on class, race and ethnicity, and gender in the United States.

SOC-445♦: Case Management 4 credits

This course introduces the student to entry-level case management skills. Students identify the various roles and functions of a case manager. A primary focus of this course is the case management process, including how to track and manage a client case load. Through case study analysis, students determine appropriate client assessment techniques and problem-solving strategies. Students explore case manager roles and case management styles in a variety of client populations and nonprofit human service agencies. Students learn to differentiate roles, functions, and styles based on their assessment of the client's needs and a clear understanding of the agency's mission, policies, and programs. Prerequisite: SOC-372.

SOC-449♦: Direct Practice 4 credits

This course introduces the student to the fundamental social work skill of direct practice. The course covers the social work "helping process" as the foundational framework for social work practice. The course teaches basic direct practice skills including—intake, assessment, treatment, evaluation, and termination. The course also exposes students to theory-directed social work practice and cultural competency in interviewing. Prerequisite: SOC-372.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SOC-480[♦]: Sociology and Social Work Capstone 4 credits

This course integrates social work knowledge, skills, theory, evidence-based practice, values, and ethics with sociological concepts of society and culture through the examination of the social work client (individual, family, community, society) experience. The course compares and contrasts social work and sociological concepts with knowledge required for graduate school and careers in the field of social work. The course culminates with a student portfolio that demonstrates acquired skills and knowledge. This capstone course needs to be completed at the end of program. Prerequisites: SOC-372 and SOC-436.

SOC-481[♦]: Sociology Capstone 4 credits

This course culminates in the application of program knowledge and skill acquisition of sociological perspectives and analysis as they relate to the various content areas. Students apply theory and practical application strategies as they complete a research project that demonstrates critical thinking, using both Christian worldview, the scientific method, and sociological theory/perspectives about the effects of society upon human social behavior and human social behavior's impact upon society. Upon course completion, students possess basic skills to engage the social world through a well-developed sociological toolkit. This capstone course needs to be completed at the end of program. Prerequisite: SOC-400.

SOC-500: Social Theory 4 credits

In this course, students analyze the works of the great thinkers within the field of sociology. The three major schools of thought are examined in depth, including classical and modern theories of sociology. Students select sociological topics and engage in comparative analysis of the theories.

SOC-502: Sociology Today 4 credits

This course is designed to provide an overview of the field of sociology, especially for those whose previous exposure to sociology was some time ago. The course examines several major areas of interest to sociologists as well as the theories and types of research that sociologists often use to gain new knowledge in this academic discipline.

SOC-505: Sociology of the Family 4 credits

This course takes a sociocultural perspective on the institution of the family. The role of the family within the functioning of society is examined. The course also compares the institution of the family around the world.

SOC-510: Stratification from Global Perspectives 4 credits

This course examines social stratification within specific countries and around the globe. The course focuses on world poverty, world political order, and social justice on the world stage.

SOC-515: Social Change and Development 4 credits

The course takes a sociohistorical perspective on societal change. An in-depth look at how social movements create or resist social change is provided.

SOC-520: Sociology and Pedagogy in the University 4 credits

This course explores the intersection of sociology and pedagogy in the university setting. Pedagogical theory and elements of sociology are examined. Through pedagogical analysis, students look at the discipline of sociology and build a pedagogy for sociology in the university setting. The course uses an Introduction to Sociology textbook to analyze and scaffold an Introduction to Sociology course.

Spanish (SPA)

SPA-104[♦]: Elementary Spanish I 4 credits

This course builds a foundation in the language development skills of listening, speaking, reading, and writing. The course textbook is supported by an extensive workbook and online lab which allows students to hear Spanish spoken by native speakers. Students practice their spoken Spanish through face-to-face activities or by recorded wave files. Additionally students are prompted to growth in global awareness through participation in cultural events in their communities, reviewing movies set in Hispanic cultural settings, and reading books in English by Hispanic authors about Hispanic culture.

SPA-105[♦]: Elementary Spanish II 4 credits

This course is a continuation of SPA-104. Prerequisite: SPA-104.

SPA-201[♦]: Intermediate Spanish I 3 credits

This course further builds Spanish vocabulary and language structure. Oral practice, short compositions, textbook readings, and cultural activities are stressed. Prerequisite: SPA-102. Co-requisite: SPA-201L.

SPA-201L[♦]: Intermediate Spanish I Lab 1 credits

A lab course designed to complement and support the principles learned in SPA-201. Prerequisite: SPA-102. Co-requisite: SPA-201.

SPA-202[♦]: Intermediate Spanish II 3 credits

Continuation of SPA-201. Prerequisite: SPA-201. Co-requisite: SPA-202L.

SPA-202L[♦]: Intermediate Spanish II Lab 1 credits

A lab course designed to complement and support the principles learned in SPA-201. Prerequisite: SPA-201. Co-requisite: SPA-202.

SPA-214[♦]: Intermediate Spanish I 4 credits

This course further builds Spanish vocabulary and language structure. Oral practice, short compositions, textbook readings, and cultural activities are stressed. Will include some study of Spanish-language cultures. Prerequisite: SPA-105.

SPA-224[♦]: Intermediate Spanish II 4 credits

This course continues to build on vocabulary, language structure, oration and composition skills. Will include some study of Spanish-language cultures. Prerequisite: SPA-214.

[♦] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPA-309♦: Spanish Conversation 4 credits

This course helps students speak with fluency and standard pronunciation, to develop facility in the language, and to become conversant with culture, common expression, and everyday usage. This course includes some study of Spanish-language cultures. Prerequisite: SPA-224.

SPA-310^Δ♦: Spanish Composition and Grammar 4 credits

This writing-intensive course helps the student express a wide range of style in writing: description, narration, persuasion, comparison/contrast, and dialogue through careful drafting and editing of content, grammar, and orthography. Will include some study of Spanish-language cultures. Prerequisite: SPA-224.

SPA-310HN^Δ♦: Spanish Composition and Grammar 4 credits

This writing-intensive course helps the student express a wide range of style in writing: description, narration, persuasion, comparison/contrast, and dialogue through careful drafting and editing of content, grammar, and orthography. Will include some study of Spanish-language cultures. Prerequisite: SPA-224.

SPA-320♦: Contemporary Issues 4 credits

This course is designed to discuss and analyze contemporary events and issues in the Spanish-speaking world. Prerequisite: SPA-309.

SPA-320HN^Δ♦: Contemporary Issues 4 credits

This course is designed to discuss and analyze contemporary events and issues in the Spanish-speaking world. Prerequisite: SPA-309.

SPA-341^Δ♦: Introduction to Literature in Spanish 4 credits

This writing-intensive course provides an introduction to literary concepts, terminology, and theory with application to poetic, dramatic, and prose texts. This course includes some study of Spanish-language cultures. Prerequisite: SPA-310.

SPA-410^Δ♦: Theory and Methodology for Translation and Interpretation 4 credits

This course provides an overview of the historical evolution of translation and interpretation across cultures. It offers important information on the function and feasibility in both fields. Prerequisite: SPA-310.

SPA-410HN^Δ♦: Theory and Methodology for Translation and Interpretation 4 credits

This course provides an overview of the historical evolution of translation and interpretation across cultures. It offers important information on the function and feasibility in both fields.

SPA-420^Δ♦: Spanish for Professions I 4 credits

This course introduces practical terminology and professional language in everyday, on-the-job situations from a cross-cultural perspective. Prerequisite: SPA-310.

SPA-430^Δ♦: Spanish for Professions II 4 credits

This course further explores practical terminology and professional language in everyday, on-the-job situations from a cross-cultural perspective in various professional fields.

SPA-440^Δ♦: Web-Based Resources and Technology for Translation and Interpretation 4 credits

This course explores various software used to aid translators and interpreters to work faster and more accurately. Prerequisite: SPA-310.

SPA-440HN^Δ♦: Web-Based Resources and Technology for Translation and Interpretation 4 credits

This course explores software such as SDL Trados and Atril to aid translators to work faster and more accurately.

SPA-450^Δ♦: Spanish Capstone 4 credits

This course provides an opportunity to produce multiple major works of translation in the areas of: Medical, Legal, Business, and Educational Spanish in both Peninsular and Latin American dialects. This capstone course needs to be completed at the end of program. Prerequisites: SPA-410 and SPA-420.

Special Education (SPD)

SPD-200: Survey of Special Education: Mild to Moderate Disabilities 4 credits

Teacher candidates are introduced to the educational needs of students with mild to moderate disabilities and their families, including the definitions, characteristics, prevalence, causes and educational approaches to these disabilities and disorders. Teacher candidates will identify cognitive, linguistic, social and emotional patterns of learning and development for students with mild to moderate disabilities. Teacher candidates also survey the special education process involving the application of various laws and regulations. Practicum/field experience hours: 5. Fingerprint clearance not required.

SPD-200HN^Δ: Survey of Special Education: Mild to Moderate Disabilities 4 credits

Teacher candidates are introduced to the educational needs of students with mild to moderate disabilities and their families, including the definitions, characteristics, prevalence, causes and educational approaches to these disabilities and disorders. Teacher candidates will identify cognitive, linguistic, social and emotional patterns of learning and development for students with mild to moderate disabilities. Teacher candidates also survey the special education process involving the application of various laws and regulations. Practicum/field experience hours: 5. Fingerprint clearance required.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

SPD-300: Professional, Ethical and Legal Practices and Policies in Special Education 4 credits

Teacher candidates survey professional ethical principles, professional practice standards, law and regulations that guide special educators. Teacher candidates build upon the foundational knowledge to understand the multiple roles and complex situations of professional practice that require attention to a variety of legal, professional and ethical issues. Practicum/field experience hours: 5. Fingerprint clearance required. Prerequisite: SPD-200.

SPD-310: Collaborations and Communications in Special Education 4 credits

Teacher candidates survey theories and models for effective collaborations and communications with students with exceptionalities, colleagues, other school professionals, families and community members. In addition, teacher candidates apply collaboration and communication theories and models, incorporating technology, across a wide range of contexts to ensure active involvement in the education process for students with exceptionalities. Practicum/field experience hours: 5. Fingerprint clearance required. Prerequisite: SPD-200.

SPD-320: Assessment and Eligibility in Special Education: MMD 4 credits

Teacher candidates will investigate diagnostic and assessment tools. Teacher candidates will build foundational knowledge regarding the use of multiple methods of assessment and data-sources for diagnostic and educational decisions for individuals with mild to moderate disabilities. Practicum/field experience hours: 10. Fingerprint Clearance required. Prerequisite: SPD-200.

SPD-330: Language Development with Mild to Moderate Disabilities and Disorders 4 credits

Teacher candidates examine typical and atypical language development, and associated disabilities and disorders. Teacher candidates investigate the use of augmentative and alternative assistive technology, modifications and accommodations to enhance the communication skills of students with mild to moderate disabilities. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: SPD-200.

SPD-400: Creating and Managing Mild to Moderate Learning Environments 4 credits

Teacher candidates examine how to create safe, inclusive, culturally responsive learning environments through collaboration with colleagues so that individuals with exceptionalities become active and effective learners and develop emotional well-being, positive social interactions, and self-determination. Teacher candidates focus on behavior management, functional behavior assessments, adaptive behaviors, positive behavior interventions and supports, and behavior improvement plans. Practicum/field experience hours: 10. Fingerprint Clearance required. Prerequisite: SPD-320.

SPD-470: Research-Based Methods for Teaching Math to Students with Exceptionalities 4 credits

Teacher candidates will examine a variety of instructional strategies to encourage individuals with mild to moderate disabilities to develop understandings and connections within the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability and to build skills to apply knowledge in meaningful ways. From this foundational knowledge, teacher candidates select, adapt and use research-based methodologies and interventions in academic and specialized curricula to advance the learning of students with mild to moderate disabilities with focused attention upon mathematics. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: ELM-210.

SPD-480: Research-Based Methods for Teaching ELA to Students with Exceptionalities 4 credits

Teacher candidates will build foundational knowledge on how to use concepts from reading, language, and child development to teach reading, writing, speaking, viewing, listening, and thinking skills to students with mild to moderate disabilities. In addition, teacher candidates select, adapt, and use research-based methodologies and interventions to individualize meaningful and challenging learning for students with mild to moderate disabilities, with an emphasis on literacy. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisites: ELM-210 and ELM-305.

SPD-490B: Student Teaching - K-Grade 12 Special Education Mild to Moderate Setting 6 credits

This course supports the special education clinical field experience through an eight (8)-week full-time student teaching experience. Candidates select a K-Grade 12 special education mild to moderate classroom to engage in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a teacher work sample related to special education services. Practicum/field experience hours: None. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of state mandated basic skills and content area exams; and approval and placement by the Office of Field Experience. Arizona residents will be required to take the Arizona professional knowledge and subject knowledge exams for mild to moderate K-12 grade special education. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-500: Survey of Special Education: Mild to Moderate Disabilities 3 credits

Teacher candidates are introduced to the educational needs of students with mild to moderate disabilities and their families, including the definitions, characteristics, prevalence, causes and educational approaches to these disabilities and disorders. Teacher candidates will identify cognitive, linguistic, social and emotional patterns of learning and development for students with mild to moderate disabilities. Teacher candidates also survey the special education process involving the application of various laws and regulations. Practicum/field experience hours: 6. Fingerprint clearance not required.

SPD-501: Foundations in Special Education Graduate Studies 3 credits

Teacher candidates will survey the philosophical, historical, and sociological influences upon which special educational theories and practices are constructed, and explore a variety of the common issues, trends, and opportunities that professional special educators face in the field. Special Education Teacher candidates will prepare for the graduate learning experience at Grand Canyon University by developing and strengthening the skills necessary to succeed as graduate students in the College of Education. Practicum/field experience hours: 6. Fingerprint clearance not required.

SPD-503: Foundations of Gifted Education 3 credits

In this course, candidates explore the historical foundations and evolution of gifted education, including definitions of giftedness. Candidates compare and contrast perspectives of giftedness, and describe characteristics of gifted, talented, and creative students and their implications for academic instruction. Emphasis is placed on identifying major contributors and their contributions to the field of gifted education, as well as major theories of intelligence and their relevance to gifted education.

SPD-505: Foundations in Autism Spectrum Disorders 3 credits

This course orients autism spectrum disorder specialist candidates to the theoretical foundations of autism spectrum disorders (ASD). ASD specialist candidates will focus on the exceptional needs of students with ASD and teacher's responsibilities to determining eligibility and assessment. This course also examines diagnoses and implications in the school environment. Practicum/field experience hours: 10. Fingerprint clearance required.

SPD-506: Survey of Moderate to Severe Special Education 3 credits

Teacher candidates are introduced to the educational needs of students with moderate to severe exceptionalities including the definitions, characteristics, prevalence, causes and educational approaches to these disabilities and disorders. Candidates define low-incidence disabilities and identify cognitive, linguistic, social, emotional and behavioral patterns of learning and development for individuals with moderate to severe exceptionalities.

SPD-510: Professional, Ethical and Legal Practices and Policies in Special Education 3 credits

Teacher candidates survey professional ethical principles, professional practice standards, law and regulations that guide special educators. Teacher candidates build upon the foundational knowledge to understand the multiple roles and complex situations of professional practice that require attention to a variety of legal, professional, and ethical issues. Practicum/field experience hours: 6. Fingerprint clearance not required. Prerequisite: SPD-500.

SPD-513: Instructional Methods in Gifted Education 3 credits

This course outlines instructional and managerial techniques used to address the individual learning needs, strengths, styles, and preferences of gifted, talented, and creative students in K-12 classrooms. Candidates explore the design, delivery, and implementation of differentiated curriculum and instruction for gifted learners. Emphasis is placed on differentiation strategies that improve student achievement through use of instructional strategies targeting large groups, small groups, and individuals. Practicum/Field Experience hours: 10. Fingerprint clearance required.

SPD-515: Methods and Assessment for Autism Spectrum Disorders 3 credits

The focus of this course is to provide methods for improvement of instruction, based on assessment for students with autism spectrum disorders (ASD). ASD specialist candidates will center on instructional planning, adaptive practices, and intervention strategies established through assessment analysis. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SPD-505.

SPD-520: Collaborations and Communications in Special Education 3 credits

Teacher candidates survey theories and models for effective collaboration and communication with students with exceptionalities, colleagues, other school professionals, families and community members. In addition, teacher candidates apply collaboration and communication theories and models, incorporating technology, across a wide range of contexts to ensure active involvement in the education process for students with exceptionalities. Practicum/field experience hours: 6. Fingerprint clearance not required. Prerequisite: SPD-510.

SPD-521: Collaborations and Communications in Special Education 3 credits

Teacher candidates survey theories and models for effective collaboration and communication with students with exceptionalities, colleagues, other school professionals, families and community members. In addition, teacher candidates apply collaboration and communication theories and models, incorporating technology, across a wide range of contexts to ensure active involvement in the education process for students with exceptionalities. Practicum/field experience hours: 6. Fingerprint clearance required. Prerequisite: SPD-510.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-523: Creativity and Talent Development in Gifted Education 3 credits

In this course, candidates study the theoretical and practical aspects of creativity and explore how it can be developed in gifted, talented, and creative students. Candidates analyze definitions of creativity and learn techniques for stimulating creative thinking as well as strategies for adapting existing curricula to develop creative thinking abilities in students. Emphasis is placed on the assessment of creative thinking, methods for enhancing personal creative abilities, and techniques for examining the creative process. Practicum/Field Experience hours: 5. Fingerprint clearance required.

SPD-525: Applied Behavior Analysis and Autism Spectrum Disorders 3 credits

The focus of this course is to provide autism spectrum disorders (ASD) specialist candidates with advanced knowledge of applied behavior analysis in regards to accommodations for students with ASD. ASD specialist candidates will focus on assessing individual needs, tools for intervention, and evaluating strategies and student progress. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SPD-505.

SPD-530: Assessment and Eligibility in Special Educ: Mild to Moderate Disability 3 credits

Teacher candidates will investigate diagnostic and assessment tools. Teacher candidates will build foundational knowledge regarding the use of multiple methods of assessment and data-sources for diagnostic and educational decisions for individuals with mild to moderate disabilities. Practicum/field experience hours: 6. Fingerprint clearance not required. Prerequisite: SPD-500.

SPD-531: Assessment and Eligibility in Special Educ: Mild to Moderate Disability 3 credits

Teacher candidates will investigate diagnostic and assessment tools. Teacher candidates will build foundational knowledge regarding the use of multiple methods of assessment and data-sources for diagnostic and educational decisions for individuals with mild to moderate disabilities. Practicum/field experience hours: 6. Fingerprint clearance required. Prerequisite: SPD-500.

SPD-535: Policy and Ethics in Autism Spectrum Disorders 3 credits

Autism spectrum disorders (ASD) specialist candidates acquire knowledge of legal policy and ethical practices associated with students with ASD. This course focuses on rights and responsibilities, trends, and advocacy for students with ASD. ASD specialist candidates will also focus on creation and delivery of individualized education plans. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: SPD-505.

SPD-540: Learning Environments for Students with Mild to Moderate Disabilities 3 credits

Teacher candidates examine how to create safe, inclusive, culturally responsive learning environments through collaboration with colleagues so that individuals with disabilities become active and effective learners and develop emotional well-being, positive social interactions, and self-determination. Teacher candidates focus on behavior management, functional behavior assessments, adaptive behaviors, positive behavior interventions and supports, and behavior improvement plans. Practicum/field experience hours: 9. Fingerprint clearance required. Prerequisite: SPD-500.

SPD-545: Leadership and Collaboration in Autism Spectrum Disorders 3 credits

Autism spectrum disorders (ASD) specialist candidates acquire a repertoire of skills that enable them to lead and collaborate in an environment focused on students with ASD. ASD specialist candidates develop techniques for professional learning and evidence-based practices centered on learner growth for students with ASD. This course also focuses on mentoring opportunities and community collaboration. Practicum/field experience hours: 5. Fingerprint clearance required. Prerequisite: SPD-535.

SPD-550: Instructional and Transitional Planning for Students with Mild to Moderate Disabilities 3 credits

Teacher candidates will examine how instructional planning advances the learning of students with mild to moderate disabilities by drawing upon knowledge of central concepts, structures of the discipline, and tools of inquiry of the academic subject-matter content areas and a variety of specialized curricula. Teacher candidates build foundational knowledge about individualized education plans and transition plans for a wide range of settings and different learning experiences. Teacher candidates engage in organizing knowledge, integrating cross-disciplinary skills, and developing meaningful individualized learning progressions through drafting an IEP. Practicum/field experience hours: 9. Fingerprint clearance required. Prerequisite: SPD-510.

SPD-551: Moderate to Severe: Professional, Ethical, and Legal Practices 3 credits

Teacher candidates survey professional ethical principles, professional practice standards, laws, and regulations that guide special educators. Candidates build upon this foundational knowledge to examine the multiple roles and complex situations of professional practice related to individuals with moderate to severe exceptionalities.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-553: Assessing and Identifying Gifted 3 credits
Learners

This course focuses on developing skills to measure intelligence, achievement, creativity, and other dimensions of giftedness. Candidates evaluate identification procedures and expanding the dimensions of gifted education to include new directions for identification and programming. Emphasis is placed on reviewing the principles of assessment and evaluation that apply to the education of gifted, talented, and creative students, including national gifted standards, testing, performance-based assessments, and other methods of observations and student evaluations in K-12 classrooms. Practicum/Field Experience hours: 5. Fingerprint clearance required. Prerequisite: SPD-503.

SPD-555: Life Skills and Transitions for 3 credits
Autism Spectrum Disorders

This course focuses autism spectrum disorders (ASD) specialist candidates on life skills and transitions for students with ASD. ASD specialist candidates will focus on development of individualized education plans and planning for independent living. No practicum/field experience required. No Fingerprint Clearance necessary. Prerequisite: SPD-535.

SPD-556: Assessment and Eligibility in 3 credits
Moderate to Severe Special
Education

Teacher candidates investigate diagnostic and assessment tools for determining student eligibility and monitoring for progress. Foundational knowledge is built regarding the use of multiple methods of assessment and data sources for diagnostic and educational decisions for individuals with moderate to severe exceptionalities. Candidates analyze assessment data and develop an individualized education plan (IEP) for a student. Ongoing collaboration with IEP team members and external stakeholders is emphasized.

SPD-558: Moderate to Severe: Care, 3 credits
Collaboration, and Communication

Teacher candidates explore effective collaboration and communication techniques and strategies used in moderate to severe special education settings. Collaboration among teachers, other school professionals, families, and outside service agencies is analyzed to meet the individual needs of this special population. In addition, evaluation of the techniques and strategies used to meet the unique medical and educational needs of students within the moderate to severe classroom setting is addressed.

SPD-560: Language Development with Mild 3 credits
to Moderate Disabilities and
Disorders

Teacher candidates examine typical and atypical language development, and associated disabilities and disorders. Teacher candidates investigate the use of augmentative and alternative assistive technology, modifications and accommodations to enhance the communication skills of students with mild to moderate disabilities. Practicum/field experience hours: 9. Fingerprint clearance required. Prerequisite: SPD-510.

SPD-562: Moderate to Severe: Instructional 3 credits
Planning, Strategies, and
Assessment

Teacher candidates examine how instructional planning advances the learning of students with moderate to severe disabilities by creating a variety of specialized curricula aligned to content standards. Candidates are guided in designing engaging instruction that meets the needs documented in a student's individualized education plan. Plans for accommodations, differentiated instruction, and strategies are identified in the lesson planning process. Formative and summative assessments are created to evaluate student progress and identify if instructional adjustments are necessary.

SPD-563: Gifted Programming and 3 credits
Environments

This course explores the development of effective programs in gifted education. Candidates evaluate gifted education programming related to gifted curriculum models, focus on the development of a well-founded rationale for gifted programming, compare appropriate delivery models for gifted programs, and identify comprehensive services for gifted, talented, and creative students. Emphasis is placed on evaluating and modifying learning environments and classroom climates to assist students who are gifted, talented, and creative to adapt to their environment, as well as advocating for gifted programs. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: SPD-553.

SPD-564: Moderate to Severe: Classroom 3 credits
Management and Behavior
Analysis

Teacher candidates examine how to create safe, inclusive, culturally responsive learning environments through collaboration with colleagues and other professionals so individuals with disabilities become active and effective learners. Strategies to develop students' emotional well-being, positive social interactions, and self-determination are emphasized. Candidates focus on functional behavior assessments, behavior improvement plans, activities of daily living, and positive behavior interventions and supports.

SPD-565: Communication Strategies and 3 credits
Assistive Tech for Autism
Spectrum Disorders

This course explores functional communication training and specific strategies to promote effective communication behaviors or skills of students with ASD. In addition, ASD specialist candidates survey assistive technology in relation to enhancing communication of students with autism spectrum disorders. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: SPD-525.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-566: Postsecondary Transitional Planning for Moderate to Severe Exceptionalities 3 credits

Teacher candidates examine curriculum needs of individuals with moderate to severe disabilities to develop and integrate the skills needed to transition students from the educational environment into successful postsecondary opportunities. Candidates focus on writing measurable postsecondary goals, creating aligned activities, and identifying the importance of family and interagency involvement.

SPD-568: Moderate to Severe: Adaptive Communication 3 credits

Teacher candidates examine typical and atypical language development, and associated disabilities and disorders. Candidates investigate how speech-language pathologists, special education teachers and others assist individuals with moderate to severe exceptionalities in the use of augmentative and alternative assistive technology, modifications, and accommodations to enhance their communication skills.

SPD-570: Methods of Teaching Math to Students with Mild to Moderate Disabilities 3 credits

Teacher candidates build foundational knowledge on a variety of research-based instructional strategies to encourage individuals with mild to moderate disabilities to develop understandings and connections within content areas, and to build skills to apply knowledge in meaningful ways. From this foundational knowledge, teacher candidates select, adapt and use research-based instructional strategies and interventions in academic and specialized curricula to advance the learning of students with mild to moderate disabilities with focused attention upon mathematics. Practicum/field experience hours: 12. Fingerprint clearance required. Prerequisite: SPD-550.

SPD-572: Moderate to Severe: Methods of Teaching Functional Mathematics and Science 3 credits

Teacher candidates build foundational knowledge on a variety of research-based instructional strategies to provide individuals with moderate to severe exceptionalities access to content areas. From this foundational knowledge, teacher candidates select and adapt research-based instructional strategies to plan lessons with a focused attention on functional mathematics and sciences.

SPD-573: The Social-Emotional Needs of Gifted Learners 3 credits

In this course candidates use current research and material relevant to special populations to develop skills to assist gifted, talented, and creative students address social and emotional issues that may arise. Emphasis is placed on twice exceptional, profoundly gifted, perfectionism, hypersensitivity, gender, underachievement, and special populations. Practicum/field experience hours: 5. Fingerprint clearance required. Prerequisite: SPD-503.

SPD-575^Δ: Capstone in Autism Spectrum Disorders 3 credits

The capstone course provides ASD specialist candidates the opportunity to create a portfolio project that synthesizes major elements of the professional studies program. Prerequisite: Completion of all other courses required for the Master of Arts in Autism Spectrum Disorders program. Practicum/field experience hours: None. Fingerprint clearance not required.

SPD-580: Methods of Teaching Lang Arts to Students with Mild/Moderate Disabilities 3 credits

Teacher candidates select, adapt and use research-based instructional strategies and interventions in academic and specialized curricula to individualize meaningful and challenging learning for students with mild to moderate disabilities, with an emphasis on literacy. Practicum/field experience hours: 12. Fingerprint clearance required. Prerequisite: SPD-550.

SPD-582: Moderate to Severe: Methods of Teaching Functional Language Arts 3 credits

Teacher candidates select and adapt research-based instructional strategies to provide individuals with moderate to severe exceptionalities access to language arts content. With this foundational knowledge, teacher candidates plan a functional approach to literacy instruction.

SPD-583: Multicultural Gifted Education 3 credits

This course is designed to teach candidates to develop conceptual understandings and skills to assess, identify, and nurture giftedness in all gifted, talented, and creative students, including those students who are typically underserved. Special emphasis is placed on advocacy for underserved populations, culturally and linguistically diverse exceptional students, social justice, critical topics in gifted education, and family and community engagement. Practicum/Field Experience hours: 10. Fingerprint clearance required. Prerequisite: SPD-513.

SPD-585: Educational Psychology for Special Education 3 credits

This course provides a thematically arranged study of the theories and principles of psychology that have influenced instructional practices. Behavioral and cognitive approaches to learning, motivation, and instruction are explored. Practicum/field experience hours: None. Fingerprint clearance not required.

SPD-590^Δ: Student Teaching for Special Education Teacher Candidates 8 credits

Teacher candidates are engaged in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Evaluation of Performance (STEP). Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 3.0 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPD-592: Student Teaching for Special Education: Moderate to Severe 8 credits

This course supports the special education clinical field experience through a full-time student teaching experience. Candidates select a K-Grade 12 special education moderate to severe classroom setting to engage in the student teaching experience that includes practical classroom experiences, research, analysis, and teaching to support the creation of a Student Teaching Performance of Evaluation (STEP) and an Individualized Education Program (IEP) Performance Template related to special education services. Practicum/field experience hours: None. Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 3.0 GPA; successful completion of NES or your state's mandated content area exams; and approval and placement by the College of Education Office of Clinical Practice. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

SPD-593^Ω: Capstone in Gifted Education 3 credits

This course provides a reflective, experience-based integration of theory and practice as the culminating experience in the gifted education program. Candidates apply the knowledge and skills they have acquired through their coursework to develop a useful, meaningful, and practical project. Practicum/Field Experience hours: 30. Fingerprint clearance required. Prerequisite: SPD-583.

SPD-5930TE: Practicum I: Gifted Education 3 credits

This course provides a reflective, experience-based integration of theory and practice. Candidates develop a useful, meaningful, and practical project that includes a schoolwide needs assessment and professional development that will be delivered to their peers. This course requires access to a K-12 school for practicum experiences. Practicum/field experience hours: 60. Fingerprint clearance required.

SPD-595: Methods of Educating Learners with Diverse Needs 3 credits

This course examines methods of educating learners with diverse needs. Emphasis is placed on definitions, etiology, characteristics, and prevalence of various exceptionalities; laws and litigation protecting the rights of students with special needs and their families; current issues affecting persons with special needs; social perceptions, assessment, inclusion, and transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the general classroom. Practicum/field experience hours: 15. Fingerprint clearance required.

SPE-330: Special Education Foundations and Framework 4 credits

This course orients teacher candidates to the field of special education. The National Board for Professional Teaching Standards and Council for Exceptional Children Standards, which guide special education research practices, are also discussed. The course includes an introduction to creating a professional portfolio. Practicum/field experience hours: 15. Fingerprint clearance required.

SPE-350: Special Education Litigation and Law 4 credits

Participants examine legal issues, recent court decisions, and current law relating to special education. Special attention is given to compliance, student and parent rights, local state and district policies and procedures, and advocacy through community organizations. Fingerprint clearance not required. Prerequisite: SPE-226.

SPE-351: Characteristics of Intellectual Disability and Strategies to Teach Individuals with ID 4 credits

The focus of this course is to provide the teacher candidate in special education with knowledge of intellectual disability (ID), including the history with attention to law and litigation, definition, causes, and characteristics of ID in children and adults. The impact of ID on the lives of individuals and necessary support systems for quality of life are investigated and assessment techniques and effective teaching strategies are addressed. Understanding and mastery of methods appropriate for meeting the educational needs of elementary and secondary students with ID are emphasized. Effective teaching strategies for planning, implementing, and evaluating instruction based on appropriate assessment for elementary and secondary students with ID in special and regular education classes are investigated, planned, implemented, and evaluated based on appropriate assessment. Particular attention is given to the structure and details of the lesson plans necessary to meet the individual needs of students with ID. This course teaches characteristics and uses of diagnostic instruments that can be used to identify, evaluate, and assess learning needs of students with ID. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisites: SPE-226 or SPD-200 and SPE-330.

Special Education (SPE)

SPE-226^Δ: Educating the Exceptional Learner 4 credits

This writing intensive course is a survey of the unique learning needs of exceptional students. Special focus is given to the referral process appropriate instructional modifications and accommodations for exceptional students, hot topics and trends, and IDEA law. Practicum/field experience hours: 15. Fingerprint clearance required.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPE-357: Characteristics of Emotional/Behavioral Disabilities and Strategies to Teach Individuals with EBD 4 credits

The focus of this course is to provide the special education teacher candidate with knowledge of EBD, including the history with attention to law and litigation, definition, etiology, types, and characteristics of students with emotional and behavioral disorders. Teacher candidates investigate theories and models of emotional and behavioral disorders and related treatments. Assessment techniques and the factors involved in a diagnosis of behavior and emotional disorders are addressed. Effective and specific individual and group behavior management models, programs, strategies, and interventions for elementary and secondary students with EBD in special and regular education classes are investigated, planned, implemented, and evaluated based on appropriate assessment. Particular attention is given to the structure and details of the behavior management plan necessary to meet the individual needs of students with EBD. This course teaches characteristics and uses of diagnostic instruments that can be used to identify, evaluate, and assess learning needs of students with emotional/behavioral disabilities. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisites: SPE-226 and SPE-330.

SPE-358: Characteristics of Students with Physical and Health Impairments and Strategies to Teach Individuals with PHI 4 credits

This course provides students with knowledge of physical and other health impairments and the impact of these disabilities on the lives of individuals. Teacher candidates investigate means to enhance individuals' quality of life through participation in home, school, and community activities. Special attention is given to accessibility to appropriate curricula, modifications and adaptations, and effective instructional strategies to meet individual needs. This course teaches characteristics and uses of diagnostic instruments that can be used to identify, evaluate, and assess learning needs of students with physical and health impairments. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisites: SPE-226 and SPE-330.

SPE-359: Characteristics of Learning Disabilities and Strategies to Teach Individuals with LD 4 credits

The focus of this course is to provide teacher candidates in special education with knowledge of LD, including the history with attention to law and litigation, definition, causes, and characteristics of learning disabilities in children and adults. The cognitive processes of students with and without learning disabilities are compared, unsubstantiated explanations and false claims relating to LD are investigated, and assessment techniques and effective teaching strategies are addressed. Effective teaching strategies for planning, implementing, and evaluating instruction based on appropriate assessment for elementary and secondary students with LD in special and regular education classes are investigated. Particular attention is given to the structure and details of the lesson plans necessary to meet the individual needs of students with LD. This course teaches characteristics and uses of diagnostic instruments that can be used to identify, evaluate, and assess learning needs of students with LD. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisites: SPE-226 and SPE-330.

SPE-448NB^{ΔΩ}: Student Teaching: Cross-Categorical Session B 6 credits

This session is a continuation of Session A. Prerequisite: EED-480NA.

SPE-807: Foundations of Special Education 3 credits

This course provides a broad overview of the history and theories of special education. A brief overview of human development, educational standards, and instructional tools is also presented. Prerequisite: RES-811 or RES-850.

SPE-812: Special Education Law 3 credits

This course examines special education law and regulations as a framework for the provision of appropriate educational opportunities for all students. Law as a foundation of best practice is discussed. Prerequisite: RES-850.

SPE-817: Supervision and Administration of Special Education 3 credits

The course emphasizes analysis of the leadership practices necessary to guide construction of appropriate internal and external frameworks for K-12 educators and students. Within these boundaries, the course addresses student assessment, internal collaboration, and professional development. Prerequisite: RES-861.

SPE-822: Fiscal Management in Special Education 3 credits

This course examines budgeting, fiscal planning, and grant writing and management in the special education setting. Leadership skills for fiscal management and fiscal integrity are addressed. Prerequisite: RES-861.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SPE-827: Perspectives in Special Education 3 credits

This course examines the current and emerging trends and issues in special education within the K-12 setting. Topics are placed in the context of legal compliance and the provision of appropriate educational opportunities for all students. Learners connect these ideas to their research interests to continue developing components of their research prospectus. Prerequisite: RES-861.

Statistics (STA)

STA-525: Probability Theory 4 credits

This course provides a rigorous examination of axiomatic probability; combinatorics; random variables and their distributions; expectation; the mean, variance, and moment generating function; induced distributions; sums of independent random variables; the law of large numbers; and the central limit theorem. Optional topics may include: random walks, Markov chains, and/or martingales. Prerequisite: MAT-254.

Science and Technology (STG)

STG-110^Ω: Team Innovation Experience 3 credits

This course will enhance student skills in working with others, communication, project management, self-discipline, and creativity. The TIE is an inquiry-based learning course and lab that integrates multiple academic disciplines to develop and demonstrate a student's critical thinking and problem-solving skills. Students will have the opportunity to examine and work on real world problems. The team project selected will be managed like a business and/or research project; objectives will be set and teams will develop strategies and action plans. Training modules will be conducted for understanding of hypothesis-based research, business and work processes, team effectiveness skills, team diversity, learning style differences, and effective oral and written communications. Co-requisite: STG-110L

STG-110L^Ω: Team Innovation Experience Lab 1 credits

This lab course is designed to reinforce principles learned in STG-110. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on teamwork and cross-disciplinary problem solving. Co-requisite: STG-110.

STG-242[♦]: Science of Solid Materials 3 credits

This course provides a general background on the field of materials science. The course builds upon prior study of general chemistry and develops the concepts of bonding and the structure of solids. Building on prior study of physics, the course introduces topics in solid state physics and devices. Additional topics may include electronic properties of materials as well as their thermal, mechanical, acoustic, and optical properties. Prerequisites: PHY-122, PHY-122L, CHM-113, and CHM-113L. Co-Requisite: STG-242L.

STG-242L[♦]: Science of Solid Materials Lab 1 credits

The laboratory section of STG-242 reinforces and expands learning of principles introduced in the lecture course. Hands-on activities include applying numerical solutions for properties and characteristics of given materials using data on their properties, and characterization of materials properties for given engineering applications. Prerequisites: PHY-122, PHY-122L, CHM-113, and CHM-113L. Co-Requisite: STG-242.

STG-330[♦]: Thermodynamics & Lab 4 credits

This course covers the principles of thermodynamics, including properties of ideal gases and water vapors, and the first and second laws of thermodynamics. Additional topics include closed systems and control volume, basic gas and vapor cycles, basic refrigeration, entropy, and an introduction to thermodynamics of reacting mixtures. Students will analyze simple to complex thermodynamic problems. Prerequisites: MAT-264, PHY-121 and PHY-121L.

STG-330HN[♦]: Thermodynamics & Lab 4 credits

This course covers the principles of thermodynamics, including properties of ideal gases and water vapors, and the first and second laws of thermodynamics. Additional topics include closed systems and control volume, basic gas and vapor cycles, basic refrigeration, entropy, and an introduction to thermodynamics of reacting mixtures. Students will analyze simple to complex thermodynamic problems. Prerequisites: MAT-264, PHY-121 and PHY-121L.

STG-345[♦]: Transport Phenomena & Lab 4 credits

This course is a study of fluid mechanics and heat and mass transfer. Topics include principles of momentum, energy, and mass transport, stress and strain rate descriptions, diffusion, calculation of transport coefficients, problems in viscous flow, dimensional analysis, and turbulence. Similarities and differences of the various phenomena are also examined. Prerequisites: PHY-122, PHY-122L, STG-330, and MAT-364.

STG-350[♦]: Electromagnetic Fields & Optics 3 credits

This course develops the fundamentals of static electric and magnetic fields, physical optics, and describes the properties of light in terms of electromagnetic waves. Prerequisites: MAT-364, PHY-122 and PHY-122L. Co-Requisite: STG-350L.

STG-350L[♦]: Electromagnetic Fields & Optics Lab 1 credits

The laboratory section of STG-350 reinforces and expands learning of principles introduced in the lecture course. Hands-on activities focus on the use of analytical techniques to solve problems and interpret results physically, Smith Chart and its applications to transmission lines, and general solutions of Faraday's Law and Maxwell's equations. Prerequisites: MAT-364, PHY-122 and PHY-122L. Co-Requisite: STG-350.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

STG-380^{▲♦}: Ethics and Professionalism in Science and Technology 4 credits

This course surveys key ethics issues in science and technology. Students have the opportunity to explore theoretical concepts in professional ethics. Using case studies, students discuss and evaluate issues in cyber-ethics, network security, privacy and identity theft, intellectual property and ownership rights, digital rights management, professional ethics, and codes of conduct. Students integrate information from multiple sources, loop through feedback and revision cycles to write, and present a code of ethical conduct for science and technology. This is a writing intensive course.

STG-380HN^{▲♦}: Ethics and Professionalism in Science and Technology 4 credits

This course surveys key ethics issues in science and technology. Students have the opportunity to explore theoretical concepts in professional ethics. Using case studies, students discuss and evaluate issues in cyber-ethics, network security, privacy and identity theft, intellectual property and ownership rights, digital rights management, professional ethics, and codes of conduct. Students integrate information from multiple sources, loop through feedback and revision cycles to write, and present a code of ethical conduct for science and technology. This is a writing intensive course.

STG-390^{▲♦}: Professionalism in Science & Technology-Communications, Conduct and Ethics 4 credits

This course provides an insight into professional communications and conduct associated with careers in science, engineering and technology. Students learn about the changing modes of communication in these disciplines recognizing the advances in digital communications. They gain practical experience in developing and supporting a thesis or position in written, oral and visual presentations. Students will explore concepts and issues in professional ethics and conduct such as privacy, discrimination, workplace etiquette, cyber-ethics, network and data security, identity theft, ownership rights and intellectual property. This is a writing intensive course.

STG-390HN^{▲♦}: Professionalism in Science & Technology-Communications, Conduct and Ethics 4 credits

This course provides an insight into professional communications and conduct associated with careers in science, engineering and technology. Students learn about the changing modes of communication in these disciplines recognizing the advances in digital communications. They gain practical experience in developing and supporting a thesis or position in written, oral and visual presentations. Students will explore concepts and issues in professional ethics and conduct such as privacy, discrimination, workplace etiquette, cyber-ethics, network and data security, identity theft, ownership rights and intellectual property. This is a writing intensive course.

STG-430: Engineering Project Management 4 credits

This course covers aspects of project management including principles, best practices, and tools and techniques across major methodologies. Prerequisites: STG-110 and STG-110L.

STG-451^{▲Ω}: Capstone Project I 2 credits

The first capstone course provides students the opportunity to work in teams to tackle real world applied research and design projects in their chosen area of interest. Students develop a project proposal, conduct a feasibility study, learn to protect intellectual property, develop teamwork skills, budgets, and a schedule for completing the project. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. Students use this course to further develop technical writing and business presentation skills. This is a writing intensive course. Prerequisites: CST-307, CST-315 and department approval.

STG-452^{▲Ω}: Capstone Project II 2 credits

The second capstone course provides students the opportunity to implement and present the applied research project designed, planned, and started in the first capstone course. The capstone project is a culmination of the learning experiences while a student in the Computer Science program. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revision. This is a writing intensive course. Prerequisite: Successful completion of STG-451 with a grade of C or better.

STG-460: Survey of Manufacturing Techniques 4 credits

This course is an overview of manufacturing techniques. Processes may include casting and molding, forming, machining, metrology, welding, joining, and computer-aided manufacturing. Additional topics include product design, material selection, process planning, and manufacturing automation. Process capabilities, limitations, and design for manufacturability will be examined.

STG-460L[♦]: Survey of Manufacturing Techniques Lab 2 credits

This course is the lab component of STG-460. In this lab, the topics discussed in the lecture will be applied including casting, welding, machining, brazing, forming, and computer-aided manufacturing. Co-Requisite: STG-460

Software Engineering (SWE)

SWE-310: Software Engineering I 4 credits

Overview of ethical values for engineering requirements analysis and design of large multifaceted software systems. Introductory discussions on software process models, approaches of project planning, documentation, tracing, quality assurance, and communication. A focused emphasis on project initiation and requirements analysis is taken. Group projects, technical oral and written presentations will be completed throughout the duration of this course. Prerequisite: CST-201.

[▲] Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SWE-350: Embedded Systems I 4 credits

An introduction to embedded systems, including fundamentals of embedded system hardware and firmware design will be explored. Students will also be introduced to the C programming language in the context of embedded systems software development. A popular microcontroller will be leveraged in the course. The course will culminate with a significant final project which will extend a base microcontroller board that provides a complete practical hardware and software based embedded system. Prerequisite: CST-307.

SWE-410: Software Engineering II 4 credits

Continuation of the development process, protocols and devices for the implementation, integration, testing and maintenance of large multifaceted software systems. Familiarity with various software development and test environments. Group projects, technical oral and written presentations will be completed throughout the duration of this course. Prerequisite: SWE-310 & CST-215.

SWE-450: Embedded Systems II 4 credits

Continuation of the embedded system hardware and firmware design will be explored. A popular microcontroller will be leveraged in the course. Students will also be introduced to an assembly language in the context of embedded systems software development. Peripherals, I/O, real time processing, and real time Operating Systems will be discussed. The architecture and instruction set of the microcontroller will be discussed. This course will culminate with a significant final project which will extend a base microcontroller board that provides a complete practical hardware and software based embedded system. Prerequisites: SWE-350, CST-307, and CST-315.

SWE-451: Software Development Life Cycle (SDLC) I 2 credits

An introduction to the Software Development Life Cycle (SDLC), including the various tools, artifacts, and delivery practices will be explored. An overview of team process infrastructure and resource estimation to support appropriate levels of quality is discussed. Traditional system and software delivery methodologies as well as agile and lean delivery methodologies will be discussed. This course will be comprised of several individual, in-class, and group projects that implement the practices reviewed. Prerequisite: SWE-310.

SWE-452: Software Development Life Cycle (SDLC) II 2 credits

Continuation of the SDLC process and delivery methodologies, including the various tools, artifacts, and delivery methodologies is explored. Traditional system and software delivery methodologies as well as agile and lean delivery methodologies will be discussed. An understanding of selecting the correct development life cycle (methodology), creating realistic plans, and managing a project team through each project phase is examined. Students must complete a programming project of mid-level complexity and delivery of a sizeable software product by a student team. Prerequisites: SWE-451, SWE-410, CST-307, and CST-315.

Social Work (SWK)

SWK-515: Human Behavior in the Social Environment I: Conception to Middle Childhood 3 credits

This course examines human behavior in the social environment by critically analyzing biopsychosocial development from conception through middle childhood using an integrative, multidimensional perspective while examining multiple theories of human behavior. This includes a focus on individuals and families. The course emphasizes a social work perspective and key frameworks for social work, with an emphasis on person-in-environment and systems theory as they describe diverse human behavior in relation to social class, race and ethnicity, gender and sexual orientation, and other multicultural backgrounds.

SWK-520: Social Welfare Policy and Services 3 credits

This course explores the history and progression of the social welfare system, services, and policies and their effects on the social work profession. Emphasis is placed on an analysis of how these systems impact vulnerable populations, specifically relating to poverty, age, race, sex, and mental health. Students learn to identify strengths and weaknesses of social welfare policies while considering diversity and social justice.

SWK-525: Generalist Social Work Practice I: Working With Individuals and Systems 3 credits

This course is based on a generalist social work perspective and prepares students for beginning practice with individuals and systems. This course focuses on conceptualizing social work practice, integrating knowledge and theory with practice, and developing beginning level practice skills. Special attention is given to human diversity and populations at risk.

SWK-530: Diversity and Social Justice in Social Work 3 credits

This course explores the foundation of knowledge needed to successfully engage diverse populations and advance social justice in social work practice. Emphasis is placed on systems of power and oppression and the cultural aspects of race/ethnicity, gender, sexual orientation, and socioeconomic status.

SWK-535: Field Instruction I 4 credits

This course exposes students to the foundations of social work practice in approved community agencies with professional supervision. The course consists of both online classroom course work and field experience hours. The course provides experiential integration and application of concepts, cognitive and affective processes, and professional social work skills. Practicum/field experience hours: 240.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SWK-540: Human Behavior in the Social Environment II: Adolescence to Late Adulthood 3 credits

This course examines human behavior in the social environment by critically analyzing biopsychosocial development from adolescence through late adulthood. This includes a focus on groups, communities, and organizations and their effect on human behavior. The course emphasizes a social work perspective and key frameworks for social work, with an emphasis on person-in-environment and systems theory as they describe diverse human behavior in relation to social class, race and ethnicity, gender and sexual orientation, and other multicultural backgrounds. Prerequisite: SWK-515.

SWK-545: Generalist Social Work Practice II: Groups, Communities, and Organizations 3 credits

This course is based on a generalist social work perspective and provides students with fundamental social work competencies to influence change at the group, community, and organizational levels. Emphasis is given to facilitative and constraining effects of the social context surrounding macro practice. Special attention is given to human diversity and populations-at-risk. Prerequisite: SWK-525.

SWK-550: Field Instruction II 4 credits

This course provides a continuation of foundations of social work practice in approved community agencies with professional supervision. Experiential integration and application of concepts, cognitive and affective processes, and professional social work skills from concurrent social work courses are practiced. Practicum/field experience hours: 240. Prerequisite: SWK-535.

SWK-555: Methods of Research in Social Work I 3 credits

This course introduces students to the scientific method and research design process used to evaluate and inform the social work profession. Methods of both quantitative and qualitative data analysis are explored.

SWK-600: Psychopathology and the Role of the Social Worker 3 credits

This course helps students to understand and analyze common classification systems and nomenclature used by practitioners to communicate, predict, and plan interventions for individuals with serious mental disorders. The course also helps students understand diagnosis in the context of a social work and person-first perspective.

SWK-605: Military Social Work 3 credits

This course addresses the needs of service members, veterans, and their families at different phases of the military life cycle. The focus of the course is on different events that can occur during military life and best practices for treatment of acute stress and trauma-related stress disorders in this population.

SWK-610: Advanced Social Work Practice Skills I: Individuals and Families 3 credits

The purpose of this advanced practice course is to build on foundational learning and start to develop advanced skills in working with individuals and families as a complement to ongoing field instruction. The course focuses on specific theories and models for individual and family work and how to effectively implement them. Special attention is given to factors of oppression, understanding diversity individually and in family systems, and outcomes.

SWK-620: Field Instruction III 4 credits

This course covers advanced clinical social work practice with individuals, dyads, families, and small groups in approved community agencies with professional supervision. Continued integration and application of concepts, cognitive and affective processes, and professional social work skills from concurrent social work courses is practiced. Practicum/field experience hours: 240. Prerequisite: SWK-550.

SWK-625: Evidence Based Practice in Social Work 3 credits

This course prepares students to combine well-researched assessment and intervention approaches with professional experience and ethics, client preferences, and culture, and to guide and inform the delivery of evidence-based programs, policies, and services at all levels of social work practice.

SWK-630: Crisis Intervention Practice Skills 3 credits

This course focuses on developing crisis intervention skills that can be applied to crises across the lifespan and also used with particular populations. This includes understanding crisis intervention models, learning crisis intervention skills, and handling different types of crises.

SWK-635: Field Instruction IV 4 credits

This course finalizes the students field placement experience. It provides a culmination of advanced clinical social work practice with individuals, dyads, families, and small groups in approved community agencies with professional supervision. Continued integration and application of concepts, cognitive and affective processes, and professional social work skills from concurrent social work courses is practiced. Practicum/field experience hours: 240. Prerequisite: SWK-620.

SWK-640: Advanced Social Work Practice Skills II: Groups 3 credits

The purpose of this advanced practice course is to build on foundational learning and start to develop advanced skills in working with groups as a complement to ongoing field instruction. This course explores theory and practice of group dynamics with an emphasis on the development of effective group work skills, analysis of processes and interactions, and values and ethics with a multi-social-cultural perspective. Prerequisite: SWK-610.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

SWK-645: Methods of Research in Social 3 credits
Work II

This course introduces students to the theory and practice of agency- or community-based evaluation and evaluation capacity building. Topics to be explored include standards and guiding principles for evaluation work, evaluation approaches and models, and evaluation methodology basics, as well as the politics and ethics of conducting, using, and communicating research and evaluation findings in applied settings.

SWK-690: Social Work Capstone 2 credits

This is the final course in the Master of Social Work Program. It requires students to integrate their learning from past courses and apply their knowledge and skills in a final project. Knowledge demonstrated includes assessment, application of theory, practice skills, ethics, and cultural sensitivity. Prerequisite: SWK-635.

Systems Management (SYM)

SYM-400♦: Introduction to Database 4 credits
Structures

This course examines the design, development, implementation, and maintenance of relational database structures. Emphasis is on appropriate application and implementation. Prerequisite: BIT-200 or BIT-205 or CST-110, or CST-111 or CST-105.

SYM-405: Business Programming 4 credits

This course focuses on the analysis of business problems to design and implement the software component of an information system. Emphasis is placed on structured design and programming. This course includes an introduction to visual programming languages. Prerequisite: SYM-400.

SYM-408: Relational Databases for Business 4 credits
Applications

This course covers the characteristics of object-relational databases and their application in business. The course also focuses on the main principles of object-oriented and object-relational databases, and their relative advantages. Students gain working knowledge of object-relational features as implemented in standard SQL database management systems. Students also learn to manage unstructured and semi-structured data with XML. Prerequisite: SYM-400.

SYM-506: Applied Business Probability and 4 credits
Statistics

The purpose of this course is to prepare students in mathematical, probability, and statistical concepts for their upcoming studies in quantitative methods. The course is intended for those students who have not had any prior statistical education, although students who have had statistics should also consider taking the course as a refresher.

Teacher Leadership (TCH)

TCH-520: Brain-Based Learning 3 credits

This course focuses on brain research (from neuroscience to the behavioral and cognitive sciences) that relates to teaching and learning and suggests ways that brain research can be translated into what teachers do in schools and classrooms. Teacher candidates will examine the inner workings of the brain and the effect on student learning, memory, and transfer. Specifically, the course explores the body of knowledge that represents the application of brain research to classroom practice, and how knowledge about the human brain can affect the curricular, instructional, and assessment decisions that teachers make every day. Practicum/field experience hours: None. Fingerprint clearance not required.

TCH-539: Introduction to Educational 3 credits
Research

This course provides an introduction to applied research in education across the major quantitative, qualitative, and action research traditions. Coursework focuses on understanding the research process and its integrated components and evaluating published research reports from the perspective of a critical consumer. Scientific reasoning and research design are also explored.

TCH-587: Educational Action Research 4 credits

This course is designed to provide the theoretical foundation and framework of action research. Special emphasis is placed on an examination of the basic principles of qualitative research methodologies, which lead to the design and implementation of a peer-supported action research project.

Technology (TEC)

TEC-516: Instructional Theories and Models 3 credits
in Technology Education

This course introduces students to technology standards for students and teachers; digital citizenship and responsibility; legal and ethical use guidelines; and transitioning instruction to integrate technology. Technology dispositions, expectations, and guidelines are emphasized. Candidates apply an understanding of design principles in visual communication theory. They incorporate multiple intelligences and constructivist theories into an interactive environment. Attention is given to instructional technology tools and resources.

TEC-520: Digital Literacies and New Media 3 credits

This course focuses on the organization and integration of media in school curricula. Candidates identify instructional purposes and define roles for technology and media in learning and teaching. An emphasis is placed on the processes for selecting and implementing meaningful technologies, electronic learning resources, and the development of digital literacies in teaching and learning. Practicum/Field experience hours: 10. Fingerprint clearance required.

^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | ^Ω Non-Transferable

TEC-530: Ethics, Culture, and Equity with Technology 3 credits

This course provides candidates with current educational practices and policies related to technology integration in schools so they may determine what level of support these policies provide regardless of student population. Candidates will also examine legal standards for fair use of materials, digital citizenship, and authenticating sources. Emphasis is placed on the critical examination of social and cultural implications of information technologies and media, issues of cultural bias, equity, and international applications and implications of information technologies. Practicum/Field experience hours: 10. Fingerprint clearance required.

TEC-536: Assessment and Instructional Technology 3 credits

This course focuses on various technology-based assessment tools used for formative and summative assessments. Candidates use tools to make data-driven decisions to drive curriculum and differentiate instruction. The content of this course includes use of digital media for progress monitoring or as assessment tools and creating and using alternative assessments. An emphasis is placed on understanding assistive technology and application in instructional programs and assessment for individuals with exceptionalities. Practicum/Field experience hours: 10. Fingerprint clearance required.

TEC-541: Distance Learning 3 credits

This course expands candidates' knowledge of lesson preparation and activities, as well as basic curriculum development and design principles for distance education. The course explores distance education and online instruction, including history, theories, and practical applications. A variety of online facilitation techniques are explored in this course. An emphasis is placed on understanding distance education development and delivery, exploring the complexities of designing instruction in various distance contexts and applying these concepts in a real-world context through online facilitation. Practicum/Field experience hours: 10. Fingerprint clearance required.

TEC-544: Leadership and Technology Coaching 3 credits

This course examines the role of leadership as it relates to the implementation of educational technologies and media. An emphasis is placed on knowledge, and skills necessary to use, evaluate, plan, manage, and implement technologies effectively. Candidates will learn and apply professional development techniques to include andragogy, coaching, improving teacher practices, school culture, and effective communication. Practicum/field experience hours: 10. Fingerprint clearance required.

TEC-561: Multimedia Instructional Strategies and Methods 3 credits

This course provides candidates with instructional strategies using learning theories. Focus is on developing knowledge and skills to create multiple types of Web-based assignments and units for K-12 students using Web authoring software. Candidates learn to select and evaluate appropriate multimedia resources, and examine steps for planning, creating, and managing curriculum using software and tools for a variety of platforms. Emphasis is placed on project based learning. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: TEC-536.

TEC-571: Distance Learning in Education 4 credits

The purpose of this course is to expand students' knowledge of lesson preparation and activities, as well as basic curriculum development and design principles, for distance education. The course explores distance education including history, theories, and practical applications. A variety of online facilitation techniques are explored in this course.

TEC-591^Ω: Internship 4 credits

This supervised internship encourages a cooperative arrangement among the key stakeholders. Upon completion, the candidate possesses an understanding of the complexity of being a leader in school and classroom technology use and training, ranging from development of a vision for technology support to demonstrating practical skills, such as writing a grant, researching funding sources, developing a series of training sessions, and ensuring smooth day-to-day technology integration in teaching. Defense of the final learning project is required. Practicum/Field Experience hours: 90. Fingerprint clearance required.

TEC-595^Ω: Instructional Technology Capstone 3 credits

This course is the culminating course in the Masters of Science in Instructional Technology program. Candidates will conduct a professional development needs assessment and create a year-long professional development plan to integrate technology in their school. Candidates will deliver, evaluate, and revise a professional development presentation, and incorporate peer and faculty feedback to ensure timeliness and relevance. Experience will culminate in an electronic portfolio. Practicum/field experience hours: 60. Fingerprint clearance required. Prerequisite: TEC-544.

Tennis Management (TEN)

TEN-111: Player Development: Basic Principles 1 credits

This course introduces basic principles of tennis strokes, footwork, and physical training. The course includes 45 hours of instruction, including both group and individual instruction. Students may use the tennis courts and practice facilities.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

TEN-112:	Player Development: Youth Coaching and Cardio Tennis	1 credits
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This course focuses on techniques specific to the instruction of youth and cardio tennis, which are aligned to the requirements of industry-standard certifications. The course includes 45 hours of group and individual instruction. Students are expected to use the tennis courts and practice facilities.

TEN-200:	Introduction to Tennis Management	4 credits
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This course introduces professional tennis management, including an overview of the industry, courts, tournaments, and revenue generation. Essential customer service and communication skills that ensure the efficient delivery of quality products and services demanded by a diverse clientele are also included.

TEN-211:	Player Development: Intermediate Principles	1 credits
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This course introduces intermediate principles of tennis strokes, footwork, and physical training. The course includes 45 hours of instruction, including both group and individual instruction. Students are expected to use the tennis courts and practice facilities to improve their skills. Prerequisite: TEN-111.

TEN-212:	Player Development: Singles Strategy and Tactics	1 credits
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This course builds on TEN-211 and advances student's knowledge of the principles and execution of various elements of the game. Students learn strategy and tactics specific to singles coaching. The requirements for USPTA Certification are also introduced. The course includes 45 hours of group and individual instruction. Students are expected to use the tennis courts and practice facilities to improve their skills. Prerequisite: TEN-211.

TEN-311:	Player Development: Advanced Principles	1 credits
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This course introduces advanced principles of tennis strokes, footwork, and physical training through a variety of instructional methods. The course includes 45 hours of group and individual instruction. Students are expected to use the tennis courts and practice facilities to improve their skills. Prerequisite: TEN-211.

TEN-312:	Player Development: Doubles Strategy and Tactics	1 credits
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This course focuses on strategies and tactics specific to doubles coaching through a variety of instructional methods. The course includes 45 hours of group and individual instruction. Students are expected to use the tennis courts and practice facilities to improve their skills.

TEN-411:	Player Development: Advanced Coaching Methods I	1 credits
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This course teaches students the advanced skills necessary to be an effective tennis instructor including the psychology of coaching. The course includes 45 hours of instruction with a focus on the application of established teaching methods aligned to requirements for USPTA Professional Certification. Students are given the opportunity to gain hands-on teaching experience. Since the students' own playing ability will reflect on their ability to teach, they are also expected to use the tennis courts and practice facilities to continue to improve their skills. Prerequisites: TEN-112, TEN-212, and TEN-312.

TEN-412:	Player Development: Advanced Coaching Methods II	1 credits
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This course builds on TEN-411 and further develops students' tennis instructional skills aligned to the certification requirements for USPTA Professional Certification. Students are given the opportunity to gain hands-on teaching experience including individual and group lesson demonstrations. Since the students' own playing ability will reflect on their ability to teach, they are also expected to use the tennis courts and practice facilities to continue to improve their skills. Prerequisite: TEN-411.

TEN-450:	Tennis Club Management and Operations	4 credits
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This course examines tennis club operations with an emphasis on a variety of tennis facilities, tournament management, and court and equipment maintenance. Prerequisite: TEN-200.

TEN-460:	Marketing and Revenue Generation in the Tennis Industry	4 credits
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This course introduces services marketing with a focus on the importance of growing a customer base within the tennis industry. There is specific emphasis on generating innovative revenue models through competitive analysis to identify market opportunities and develop innovative growth strategies.

Adult Learning (TLA)

TLA-830:	Adult Learning Theory	3 credits
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The course presents theories and models of adult learning for consideration. Potential applications of the theories and models are discussed as are current trends in adult learning.

TLA-832:	Worldview and Adult Learning	3 credits
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This course connects key concepts in worldview to adult learning. Learners are encouraged to synthesize worldview and adult learning concepts as they move toward the development or refinement of a personal worldview.

TLA-834:	Cognitive Coaching	3 credits
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The course explores the connections between cognitive coaching, critical inquiry, and reflective practice. Tools for cognitive coaching and their applications are also discussed.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

TLA-836: Transformational Learning 3 credits

The course outlines the process of transformational learning and discusses its application to adult learning. The notions of practitioners as transformational catalysts and the influence of transformation learning on adult learning design are also addressed.

TLA-838: Applications of Adult Learning 3 credits

The course considers the application of adult learning theory and philosophy of adult learning as they lead to solutions for enhanced teaching and learning. Connections between theory and practice are highlighted.

Teaching and Learning (TLC)

TLC-801: History and Philosophy of Teaching and Learning 3 credits

The course presents a foundation of historic and philosophic ideas in teaching and learning. Learners are encouraged to consider the connections between history, philosophy, teaching, and learning as well as the influence of these concepts on the development of a personal philosophy of teaching and learning.

TLC-802: Learning Theories 3 credits

The course provides a chronological overview of learning theories and their common applications. Connections between theory and philosophy of teaching and learning are explored.

TLC-803: Coaching, Mentoring, and Collaboration 3 credits

This course addresses the current mindset surrounding the notion of collaboration and proposes a paradigm shift to a mindset that redefines collaboration and integrates it with coaching and mentoring. The course includes a discussion of strategies employed by coaches/mentors to support leadership and ensure a positive organizational culture.

TLC-804: Globalization, Innovation, and Change 3 credits

The course addresses the challenges to teaching and learning inherent in a global environment of perpetual change and frequent innovation. Connections to philosophy of teaching and learning are explored.

TLC-885: Developing the Research Proposal 3 credits

In this course, learners formalize their research proposal specific to their topic. Emphasis is placed on fully developing Chapter 1 and incorporating Chapters 2 and 3 (drafts) from previous research courses. This proposal becomes the first three chapters of the dissertation upon approval of the final draft by the College of Doctoral Studies. Prerequisite: RES-880.

TLC-955: Dissertation I 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design independent research under the guidance of the dissertation committee. Prerequisite: TLC-885.

TLC-960: Dissertation II 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: TLC-955.

TLC-965: Dissertation III 3 credits

In this course, learners apply the skills of the practitioner-scholar. They are self-motivated and committed to reflective practice. They actively seek input from other scholars while continuing to design and/or conduct independent research under the guidance of the dissertation committee. Prerequisite: TLC-960.

TLC-966: Research Continuation I 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: TLC-965.

TLC-967: Research Continuation II 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: TLC-966.

TLC-968: Research Continuation III 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: TLC-967.

TLC-969: Research Continuation IV 3 credits

This course emphasizes the finalization of the dissertation and provides learners with individualized support for completing their dissertation journey. Learners continue to work directly with their dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: TLC-968.

TLC-975: Research Continuation Course 0 credits

This course emphasizes the finalization of the dissertation and provides learners guidance for finding the appropriate venues and approaches in publishing their research findings. This will include the final steps necessary in pulling together what might have been earlier versions of chapters 1, 2, and 3, as well as the proofing and dissertation editing strategies that are required and the steps scholars can take to make sure their results are, in fact, shared with other scholars. This includes an exploration of writing research articles, preparing to present scholarly papers, as well as other publication venues. Prerequisite: TLC-970.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Theater and Drama (TRE)

TRE-101♦: Theatre Participation I 1 credits

In this course students select and participate in one of the following areas of theatre production and management including: technical theatre, front of house, performance, and stage/production management. Students are required to choose at least three different disciplines within their four years of study. The course requires 40 lab hours that can be used toward fulfilling scholarship requirements.

TRE-125♦: Introduction to the Theatre 4 credits

This course introduces the study of theatre history, dramatic structure, dramatic literature, period styles, production elements, design aspects, and a chronological survey of plays. It includes the study of theory of theatre and drama as well as appreciation and analysis of live theatrical performance.

TRE-130♦: Stagecraft 4 credits

This course is the study of set and prop construction. Practical application of construction techniques is gained through theatre productions.

TRE-145♦: Acting I 4 credits

This course identifies principles of pantomime and dramatic action designed to establish the proper relationship of the voice to the body and its functions in the interpretation of character. It is designed to help develop physical presence and facility in the actor, vocalist, teacher, athlete, and other persons involved in public performance.

TRE-155♦: Voice and Movement for the Stage 4 credits

This is an introductory course for vocal production and body manipulation. Students learn techniques for the healthy production, manipulation, and utilization of sound and movement. The student's voice and body are developed through conditioning exercises. Vocal production and movement are linked to a character's intention and given circumstances in order to facilitate a compelling, understandable performance.

TRE-201♦: Theatre Participation II 1 credits

In this course students select and participate in one of the following areas of theatre production and management including: technical theatre, front of house, performance, and stage/production management. Students are required to choose at least three different disciplines within their four years of study. The course requires 40 lab hours that can be used toward fulfilling scholarship requirements.

TRE-245♦: Fundamentals of Theatrical Design 4 credits

This course is an introduction to scenography. Topics include scenic, lighting, costume, and makeup design, with an emphasis on drafting, modeling, and rendering. Students will have the opportunity to assist designers for the University's Ethington Theatre Series.

TRE-251♦: Improvisation 4 credits

Students learn and utilize the techniques of theatrical improvisation. Skills necessary to create an improv team and produce an improv show are developed through improvisational games and exercises.

TRE-253♦: Acting II 4 credits

This is an advanced acting course emphasizing scene study and textual analysis, allowing students to concentrate on the method and technique of building a character. Prerequisite: TRE-145.

TRE-280♦: Playwriting 4 credits

In this course students use the theoretical aspects of dramatic literature, acting, and scenography to create a play. Prerequisite: ENG-106.

TRE-301♦: Theatre Participation III 1 credits

In this course students select and participate in one of the following areas of theatre production and management including: technical theatre, front of house, performance, and stage/production management. Students are required to choose at least three different disciplines within their four years of study. The course requires 40 lab hours that can be used toward fulfilling scholarship requirements.

TRE-320: Technology for Theatre Educators 2 credits

Students study and utilize a variety of theatre technologies such as computer software, hardware, networking, multimedia, interactive media, and the Internet in order to foster inquiry, collaboration, and interaction in the classroom in order to meet the needs of a diverse student population.

TRE-325^♦: Theatre History I: Greek to Restoration 4 credits

This writing intensive course is an in-depth study of the history and development of theatre from early Greece to the English Restoration.

TRE-325HN^♦: Theatre History I: Greek to Restoration 4 credits

This writing intensive course is an in-depth study of the history and development of theatre from early Greece to the English Restoration.

TRE-327: Theatre Pedagogy 2 credits

This course educates the student in methods of teaching theatre in elementary school, secondary school, community college, and the university. It encompasses the basic objectives of theatre education and the components of excellence in teaching and art. Practicum/field experience hours: 10. Fingerprint clearance required.

TRE-330^♦: Theatre History II: 18th Century to Present 4 credits

This writing intensive course is an in-depth study of the history and development of theatre from the 18th century through modern times.

[^] Writing intensive course | ♦ Fulfills General Education requirement | [^] Honors Major Course | ^Ω Non-Transferable

TRE-330HN^Δ♦: Theatre History II: 18th Century to Present 4 credits

This writing intensive course is an in-depth study of the history and development of theatre from the 18th century through modern times.

TRE-335♦: Dramatic Literature I 4 credits

This course is a comprehensive study of the major periods and forms of dramatic literature dating from early Greece to the Restoration.

TRE-337♦: Theatre Methods and Assessment in the Elementary School 4 credits

This course is a study and demonstration of methods and materials for the first six grades. Students make a study of activities implemented with each grade level, prepare lesson plans, and visit classrooms to observe teaching situations. Practicum/field experience hours: 30. Fingerprint clearance required.

TRE-339♦: Dramatic Literature II 4 credits

This course is a comprehensive study of the major periods and forms of dramatic literature dating from the Restoration to the present.

TRE-347♦: Theatre Methods and Assessment in the Secondary School 4 credits

This course is a study of methods for developing and conducting the theatre program in junior and senior high schools. Methods, materials, topics, and issues in theatre education are used to prepare theatre education majors to enter the teaching profession. Practicum/field experience hours: 30. Fingerprint clearance required.

TRE-372♦: Costume Design and Construction 4 credits

This course concerns the art of designing costumes for the theatre. Students construct a costume of their own design.

TRE-377♦: Scenic Design 4 credits

Students learn to develop design concepts through research and the creative process that reinforce and illuminate a director's vision to communicate these concepts visually and in written form. Students learn to use technology specific to design that may include CAD and other digital design programs. Students learn graphic design standards based on industry guidelines including hand drawing, drafting, and model making culminating in a complete design presentation. Prerequisites: TRE-130 and TRE-245 or permission of instructor.

TRE-401♦: Theatre Participation IV 1 credits

In this course students select and participate in one of the following areas of theatre production and management including: technical theatre, front of house, performance, and stage/production management. Students are required to choose at least three different disciplines within their four years of study. The course requires 40 lab hours that can be used toward fulfilling scholarship requirements.

TRE-421♦: Foundations of Theatre and Culture for Diverse Learners 4 credits

Students study the historical, philosophical, and sociological influences that have shaped theatre and theatre education and the issues faced by educators today, as well as the challenges of the future that await persons now entering the teaching profession. The course also examines the unique learning needs of exceptional students. Emphasis is placed on definitions, etiology, characteristics, and prevalence of various exceptionalities; laws, and litigation protecting the rights of students with special needs and their families; current issues affecting persons with special needs; social perceptions, assessment, inclusion, and transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the theatre classroom. Practicum/field experience hours: 15. Fingerprint clearance required.

TRE-439♦: Stage Direction 4 credits

This course is a study of theories and techniques for interpreting and directing plays through lectures and demonstrations. Students are required to participate in laboratory projects in directing one-acts or scenes from full-length plays. Prerequisites: TRE-145 and TRE-335 or TRE-339.

TRE-439HN♦:Stage Direction 4 credits

This course is a study of theories and techniques for interpreting and directing plays through lectures and demonstrations. Students are required to participate in laboratory projects in directing one-acts or scenes from full-length plays. Prerequisites: TRE-253 and TRE-335 or TRE-339.

TRE-441♦: Stage Direction II 4 credits

This course continues the study of theories and techniques for interpreting and directing plays, musicals, and operas through lectures and demonstrations. Students focus on major directing and research projects, story clarity, collaboration, and advanced rehearsal processes. Prerequisite: TRE-439.

TRE-475♦: Stage Lighting and Design 4 credits

This course concerns the art of designing lighting and scenery for the theatre. Students will actively participate in designing Grand Canyon University Theatre productions and classroom projects. Prerequisites: TRE-130 and TRE-245.

TRE-475HN♦:Stage Lighting and Design 4 credits

This course concerns the art of designing lighting and scenery for the theatre. Students will actively participate in designing Grand Canyon University Theatre productions and classroom projects. Prerequisites: TRE-130 and TRE-245.

TRE-490♦: The Business of Theatre 4 credits

This course is designed for the preparation of theatre students for professional life and graduate school interviews. Students set professional goals, plan achievable steps to meet those goals, and gather the tools required to complete each step. Students also learn key networking and marketing skills to find, obtain, execute successful interviews, and manage tax and finances. Students study the literature of professional theatrical organizations to plan candidacy and learn professional deportment. Prerequisite: Senior Standing.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Teaching English to Speakers of Other Languages (TSL)

TSL-532: Foundations of Instruction for English Language Learners 3 credits

This course provides the historical, sociological, political, and legal foundations of policies and instructional programs for English Language Learners (ELLs) in the United States. Emphasis will be placed on understanding, comparing, and evaluating current language models and prototypes. This course will also introduce students to primary theories of language learning and current methodologies and practices.

TSL-541: Linguistics 3 credits

In this course, candidates become familiar with the fundamentals of linguistics. Emphasis will be placed on phonology, morphology, syntax, semantics, pragmatics, sociolinguistics, historical linguistics, and first and second language acquisition theories. Candidates will synthesize research-based methods of incorporating linguistic principles into their teaching practice.

TSL-550: School, Community, and Family Culture 3 credits

In this course candidates will explore school, community, and family culture. Emphasis will be placed on the major goals, principles, and concepts of multicultural education, including multiple perspectives in culture and history and understanding cultural and individual differences in teaching and learning. Research is utilized to investigate the social, community, cultural, and familial contexts that influence learning and development. Practicum/field experience hours: 10. Fingerprint clearance required.

TSL-552: Literacy in Bilingual Settings 3 credits

In this course, candidates will examine approaches to developing literacy in a second and native language P-12 schools. Emphasis will be placed on techniques for developing listening, speaking, reading, and writing skills; developing language and literacy through the content areas; using children's and young adult multicultural literature; and assessing students' literacy development in the second and native language. Strategies to develop biliteracy in dual language programs will also be discussed. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: TSL-550.

TSL-558: ELL and Bilingual Curriculum and Methods of Instruction 3 credits

In this course candidates will review curricula and methods appropriate for the teaching of subject areas in ELL and dual language educational settings. Emphasis is placed on linguistic, cognitive, developmental, and socio-cultural considerations in the design of culturally responsive curricula; exploration of culturally responsive instructional methods and materials for use in language arts and content areas; and critique of current commercially prepared products. Practicum/field experience hours: 10. Fingerprint clearance required.

TSL-565: ELL and Bilingual Assessment 3 credits

In this course candidates will explore the principles of (or for) evaluating and structuring assessments. Candidates will design rubrics and examine assessment for the purposes of identification, placement, and instructional delivery. Emphasis will be placed on learning ways to integrate assessment procedures into any curriculum, and designing assessment tasks that allow for improved learning. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: TSL-558.

TSL-567: Methods of Teaching and Evaluating ELLs with Special Needs 3 credits

In this course, candidates will be introduced to the field of bilingual and English language learners in special education. Candidates will be engaged in the study of the nature, psychosocial and emotional needs of bilingual individuals and English language learners with exceptionalities. Emphasis will be placed on research in bilingual and English language learner education in relation to the complexity of the over-representation and under-representation of bilingual students in special education, issues in relation to differentiating cultural and linguistic-related learning variations from special education issues, and instructional implications. Practicum/field experience hours: 10. Fingerprint clearance required.

TSL-590⁰: BLE or TESOL Practicum 3 credits

In this course candidates have direct participation and experience with ELLs or bilingual/dual language students at their chosen level of instruction, within a P-12 setting. Candidates will practice teaching and management skills, conduct assessments, and learn to communicate effectively with students, parents, colleagues, administrators, and the larger community. Practicum/field experience hours: 60. Fingerprint clearance required. Prerequisite: TSL-565.

University Studies (UNV)

UNV-100[♦]: Developmental Writing Skills 4 credits

This course is for students who need to improve their foundational English writing skills and strategies. The class reviews fundamentals such as grammar, punctuation, sentence structure, and effective paragraph development. It also focuses on the basics of prewriting and revision strategies, style, and development. Students begin with simple writing tasks, but progressively increase to more complex multiparagraph essay assignments in preparation for academic writing at the college level.

UNV-103^{0♦}: University Success 4 credits

This course is designed to provide students opportunities to develop and strengthen skills necessary to enhance the undergraduate experience. It provides positive reinforcement of successful learning strategies and assistance with adaptation to the GCU academic environment.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

UNV-104♦: 21st Century Skills: Communication and Information Literacy 4 credits

This course provides an introduction to information and communication literacy. Students examine available resources and research methods that help them understand how to use library and Internet resources. Topics include how to formulate a research strategy, develop search skills, and evaluate sources. Students build effective communication skills, develop learning strategies, and improve writing skills.

UNV-106HN^Ω♦: A Ripple in the Pond: From Idea to Impact 4 credits

This honors course introduces students to Grand Canyon University, the honors program, and the student success skills necessary to prepare them for their academic career. The course focuses on ethics and critical thinking while challenging students to further their knowledge and application of these concepts. This course lays a foundation for students to examine their own thinking and encourages them to become expansive thinkers. Prerequisite: Acceptance into the honors program.

UNV-107♦: University Success for Student Athletes 4 credits

The goal of this comprehensive skill-development course is to assist student-athletes in their transition to Grand Canyon University. The course is designed to provide students with opportunities to develop the self-management, leadership, and other skills needed to be successful students and athletes. This course also provides student-athletes with the opportunity to learn the foundations of making good decisions and being a successful part of the entire campus community.

UNV-108^Ω♦: University Success in the College of Education 4 credits

This course is designed to provide education students opportunities to develop and strengthen skills necessary to enhance their undergraduate experience. It provides positive reinforcement of successful learning strategies, assistance with adaption to the GCU academic environment, and the foundation for success in the education area of study.

UNV-109HN^Ω♦: Introduction to Honors Education and Academic Literacies 4 credits

This introductory honors course explores how knowledge—including scientific, medical, mathematical, and cosmological—depend on understandings of the humanities—including history, philosophy, religion, law, and language. Quantitative and qualitative assignments complement readings from the history of science and science fiction, focusing on how paradigms and worldviews frame our understandings of data, how science and society influence each other, and how data-based arguments can be communicated effectively to broad audiences. Prerequisite: Acceptance into the honors program.

UNV-112^Ω♦: Success in Science, Engineering and Technology & Lab 4 credits

This course is designed to provide students opportunities to develop and strengthen skills necessary to enhance the undergraduate experience. It provides positive reinforcement of successful learning strategies and assistance with adaptation to the GCU academic environment. This course also provides a foundation for inquiry-based learning in science, engineering and technology and a review of resources and study tools to support success. The course introduces basic concepts relating science and engineering and surveys the characteristics of the STEM disciplines. It develops basic concepts in the context of real applications. The course presents illustrations of logical ways of thinking about problems and their solutions. The laboratory reinforces and expands learning of principles introduced in the lecture.

UNV-115^Ω♦: University Chapel Service 0.5 credits

This corporate worship experience unites students, faculty, and staff in the worship of the triune God through music and the exposition of God's Word. Students receive credit for this repeatable course on the basis of consistent participation in chapel services each semester.

UNV-150♦: Origins of Western Consciousness and Community 4 credits

This is a survey course focusing on the origins of Western thought from an interdisciplinary perspective. Students cover topics related to myth, logic, rhetoric, symbol, aesthetics, politics, citizenship, ethics, and the philosophy of the good life.

UNV-300^Ω♦: Study Abroad 0 credits

On demand. This program enables students to be enrolled at Grand Canyon University while undertaking studies in another country or with CCCU. Credits for this program vary depending on the number of credits involved and the chosen course of study. Prerequisite: Approval of Director of Center for International Education or appropriate college dean.

UNV-303^Ω♦: University Success 4 credits

This course is designed to address four major areas of a student's development: life management skills, academic skills, campus and community awareness, and personal and spiritual growth. This course is designed to provide opportunities to develop and strengthen skills necessary to enhance the college experience. Topics in this course are meant to enhance the learner's experience upon transferring into the university from other academic institutions.

UNV-401^Ω♦: University Internship 1 credits

An opportunity for students to practice principles learned in the classroom by working in an organization under the supervision of a practitioner. This course requires students to complete internship hours. Practicum/field experience hours: 45. Prerequisite: Permission of the Director of the Internship Program.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

UNV-410^Ω: University Internship 2 credits

An opportunity for students to practice principles learned in the classroom by working in an organization under the supervision of a practitioner. This course requires students to complete internship hours. Practicum/field experience hours: 90. Prerequisite: Permission of the Director of the Internship Program.

UNV-430^Ω: University Internship 4 credits

An opportunity for students to practice principles learned in the classroom by working in an organization under the supervision of a practitioner. This course requires students to complete internship hours. Practicum/field experience hours: 180. Prerequisite: Permission of the Director of the Internship Program.

UNV-440^Ω: University Internship 8 credits

An opportunity for students to practice principles learned in the classroom by working in an organization under the supervision of a practitioner. This course requires students to complete internship hours. Practicum/field experience hours: 360. Prerequisite: Permission of the Director of the Internship Program.

UNV-450^Ω: University Internship 12 credits

An opportunity for students to practice principles learned in the classroom by working in an organization under the supervision of a practitioner. This course requires students to complete internship hours. Practicum/field experience hours: 540. Prerequisite: Permission of the Director of the Internship Program.

UNV-501^Ω: Introduction to Graduate Studies in the College of Education 2 credits

This course is designed to prepare students for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in the College of Education. Emphasis is placed on utilizing the tools for graduate success.

UNV-502^Ω: Introduction to Graduate Studies in the Health Sciences 2 credits

This course is designed to prepare students for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in the health sciences. Emphasis is placed on utilizing the tools for graduate success.

UNV-503^Ω: Introduction to Graduate Studies in the Liberal Arts 2 credits

This course is designed to prepare students for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in the liberal arts. Emphasis is placed on utilizing the tools for graduate success.

UNV-504^Ω: Introduction to Graduate Studies in the College of Business 2 credits

This course is designed to prepare students for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in the College of Business. Emphasis is placed on utilizing the tools for graduate success.

UNV-505^Ω: Introduction to Graduate Studies in Ministry and Theology 2 credits

This course is designed to prepare students for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in ministry and theology. Emphasis is placed on utilizing the tools for graduate success.

UNV-506^Ω: Introduction to Graduate Studies in the Health Care Professions 2 credits

This course is designed to prepare students for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in the health care professions. Emphasis is placed on utilizing the tools for graduate success.

UNV-507^Ω: Introduction to Graduate Studies in CSET 2 credits

This course is designed to prepare students for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in the College of Science, Engineering, and Technology. Emphasis is placed on utilizing the tools for graduate success.

UNV-508: Introduction to Graduate Studies in Counseling 2 credits

This course is designed as an orientation for the graduate learning experience at Grand Canyon University. Students have opportunities to develop and strengthen the skills necessary to succeed as graduate students in counseling. Emphasis is placed on utilizing the tools for graduate success.

UNV-509^Ω: Introduction to Graduate Studies in Mathematics 2 credits

This course prepares students for the graduate learning experience at Grand Canyon University. It provides students with opportunities to develop and strengthen the skills necessary to succeed as graduate students. Emphasis is placed on utilizing the tools for graduate success in mathematics. Mathematics concepts, such as logic, mathematical notation and definitions, methods of proof, and mathematics software, are covered.

UNV-510: Introduction to Graduate Studies in Social Work 2 credits

This course is designed as an orientation for the graduate learning experience at Grand Canyon University. There is an emphasis on developing and strengthening skills for success as a graduate student of social work. Students are provided an overview of the social work profession while exploring career interests and utilization of the tools for graduate success.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

UNV-601^Ω: University Internship 1 credits

The internship is the culminating course in an academic program of study. The internship provides students the opportunity to work as independent practitioners within their field and to practice principles learned in their major area of study by working in an outside organization under the supervision of a professional. Practicum/field experience hours: 45.

Worship Arts: Guitar (WGA)

WGA-111♦: Private Guitar Study I 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

WGA-112♦: Private Guitar Study II 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

WGA-211♦: Private Guitar Study III 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

WGA-212♦: Private Guitar Study IV 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

WGA-310♦: Private Guitar Study IV 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

WGA-311♦: Private Guitar Study V 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

WGA-312♦: Private Guitar Study VI 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

WGA-411♦: Private Guitar Study VII 1 credits

This course in private applied guitar study concentrates on guitar technique and repertoire for the contemporary Christian musician.

Worship Arts: Keyboard (WKA)

WKA-111♦: Private Keyboard Study I 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

WKA-112♦: Private Keyboard Study II 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

WKA-211♦: Private Keyboard Study III 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

WKA-212♦: Private Keyboard Study IV 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

WKA-310♦: Private Keyboard Study IV 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

WKA-311♦: Private Keyboard Study V 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

WKA-312♦: Private Keyboard Study VI 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

WKA-411♦: Private Keyboard Study VII 1 credits

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

Worship (WOR)

WOR-510: Biblical Worship 4 credits

This course is a biblical and theological examination of the relationship between the gospel of Jesus Christ, life in Christ, and worship in the Christian community. Students reflect on biblical patterns of worship and praise and compare them to contemporary expressions, as they develop understandings and habits related to personal and corporate worship. Special attention is given to the Psalms and doxological passages in the Old and New Testaments.

WOR-520: Christian Worldview and Media 4 credits

This course examines the ways in which the use of various media affects the expression of the Christian worldview. Special attention is given to developing technologies, the Christian life, and corporate worship. Prerequisite: WOR-601.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

WOR-601: Theology of Worship 4 credits

This course is a historical and theological study of Christian worship with emphasis on biblical teaching related to personal and corporate worship. Attention is given to the formation of worshipers and historical developments that have shaped contemporary worship.

WOR-610: Worship Leadership 4 credits

This course surveys the nature and practice of worship ministry. The course is designed to develop understandings and skills for effective leadership, administration, and pastoral care within the local church and other ministerial environments. Prerequisite: WOR-601.

Worship Applied Percussion (WPA)

WPA-111♦: Private Percussion Study I 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

WPA-112♦: Private Percussion Study II 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

WPA-211♦: Private Percussion Study III 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

WPA-212♦: Private Percussion Study IV 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

WPA-310♦: Private Percussion Study IV 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

WPA-311♦: Private Percussion Study V 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

WPA-312♦: Private Percussion Study VI 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

WPA-411♦: Private Percussion Study VII 1 credits

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

Worship Arts (WSA)

WSA-105♦: Songwriting I 1 credits

This course covers principles of songwriting in the context of contemporary worship music. Contemporary styles, popular song forms, chord progressions, and formation of melodic ideas are explored. Coverage of effective lyric writing includes developing song ideas, the hook, rhyme scheme, and the use of literary devices. Students develop a portfolio of songs for worship and spiritual formation in a variety of forms and styles.

WSA-113♦: Class Voice 1 credits

This course provides class instruction for students with limited or no previous voice training. Instruction includes the study of vocal technique and is designed to prepare worship leaders to perform with basic vocal skill and to understand strategies for long-term vocal health. Various vocal techniques and performance styles are explored, with an emphasis on popular music genres.

WSA-114♦: Class Keyboard 1 credits

This course provides class instruction for students with limited or no previous piano training. Instruction includes the study of piano technique and is designed to prepare worship leaders to perform with basic piano skill and to understand strategies of keyboard playing in worship ensembles. Various keyboard techniques and performance styles are explored, with an emphasis on popular music genres.

WSA-116: Worship Leader Lab 1 credits

This course examines the call of God on the life of a worship leader, equipping students to rest and identify completely with Christ.

WSA-120♦: Media and Production for Worship Ministry 2 credits

This course introduces interactive media productions, web design, and motion graphics in worship ministry. Students explore the purpose and practice of media in worship. Students learn to optimize media resources in churches of various sizes. A practical survey of settings is included.

WSA-121♦: Survey of Media and Production for Contemporary Worship 4 credits

This course surveys interactive media productions, live events, web design, and motion graphics in contemporary worship. Students explore the purpose and practice of media in worship. Students learn to optimize media resources in churches of various sizes. A practical survey of settings is included.

WSA-122♦: Music in Contemporary Worship 4 credits

This course addresses philosophy, modes, methods, and other issues concerning the role of music in contemporary worship. Students identify the roots of contemporary worship music and gain an understanding of the social contexts from which music arises. The use of music in communicating the gospel message to each generation of worshipers is explored.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

WSA-123: Church Audio 4 credits

This course introduces students to fundamental concepts in sound theory, acoustic principles, microphone types and techniques, sound equipment, signal flow, cable management, stage arrangement, and documentation through lecture and hands-on activities.

WSA-125♦: Introduction to Sound for Contemporary Worship 2 credits

This course sets the foundation for understanding concepts in sound theory, sound system operation, and sound system design. In this course, students learn foundational principles in audio production. They will leverage this knowledge in all other classes that require interaction with recording software, sound equipment, music production, and ear training. Students begin to understand the cultural significance of technology in the modern worship environment.

WSA-161♦: Worship Summit I 0 credits

This course involves students in a guided practicum experience in which they work collaboratively to compose music, create media, and develop a production for worship ministry while engaging in spiritual formation. Students interact with faculty, mentors, and practitioners who focus on worship ministry, worship songwriting and arts, and worship production. This course emphasizes collaboration in songwriting.

WSA-205♦: Arranging I 1 credits

This course introduces the student to standard methods of arranging, using grooves and melodic lines. Students arrange elements of music for contemporary music bands for a variety of instrumental and vocal combinations. The use and integration of MIDI and DAW technology as an arranging tool is introduced. Prerequisite: WSA-215. Co-Requisite: WSA-305.

WSA-206: Worship Formation Lab 1 credits

This course continues the formational process for worship leadership, especially as it relates to the importance of relational skills, such as collaboration, motivation, and conflict resolution for life and ministry.

WSA-209♦: Aural Skills I 1 credits

This course develops melodic and rhythmic awareness within a contemporary style. Students in this class learn to perform and notate rhythm patterns using basic note values and basic melodic formations using the movable DO solfege system. Aural identification of intervals and interval qualities is also included. Co-Requisite: WSA-215.

WSA-213♦: Class Guitar 1 credits

This course provides class instruction for students with limited or no previous guitar training. Instruction includes the study of guitar technique and is designed to prepare worship leaders to perform with basic guitar skill and to understand strategies of guitar playing in worship ensembles. Various guitar techniques and performance styles are explored, with an emphasis on popular music genres.

WSA-214♦: Class Percussion 1 credits

This course provides class instruction for students with limited or no previous percussion training. Instruction includes the study of percussion technique and is designed to prepare worship leaders to perform with basic percussion skill and to understand strategies of percussion playing in worship ensembles. Various percussion techniques and performance styles are explored, with an emphasis on popular music genres.

WSA-215♦: Fundamentals of Music Theory for Contemporary Worship I 2 credits

This is an introductory course in music theory. Topics include music notation, key signatures, scales, intervals, modes, diatonic relationships and functions, and chords; ear-training skills are also included in this course. Co-Requisite: WSA-209.

WSA-222: Introduction to Worship Arts Management 4 credits

This course surveys the music industry, its structure, and the principal members and their roles, with specific attention paid to the worship arts component of that industry. This course introduces the servant leadership philosophy and its application in the music industry. Ethical leadership principles are also examined.

WSA-223: Principles of Worship Arts Entrepreneurship 4 credits

This course introduces the principles needed to build, promote, and manage new organizations, whether within an existing organization, such as a church or ministry, or for an original endeavor. This course introduces business terminology and the basic elements of a business plan. Concepts addressed include teamwork, customer relations, and networking.

WSA-225: Worship Workshop I 0 credits

In this course, students collaborate in small contemporary musical ensembles to develop skills in performing, arranging, rehearsing, and critiquing a worship band for a contemporary worship set for a church's main worship service.

WSA-226: Worship Workshop II 0 credits

In this course, students collaborate in small musical ensembles to develop skills in performing, arranging, and rehearsing a worship band for contemporary acoustic worship settings. Special attention is given to preparing and critiquing worship sets for Sunday worship experiences that involve the exclusive use of acoustic guitars, other stringed instruments, hand-drums, and vocals.

WSA-227: Worship Workshop III 0 credits

In this course, students collaborate in small musical ensembles to develop skills in performing, arranging, and rehearsing a worship band for contemporary worship settings in a variety of traditional and contemporary styles. Special attention is given to preparing and critiquing worship sets for seasonal worship events (e.g., Advent, Christmas, Lent, and Easter), weddings, funerals, and other special services of the church.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

WSA-228: Worship Workshop IV 0 credits

In this course, students collaborate in musical ensembles of various sizes from duets to choirs to develop skills in performing, arranging, and rehearsing a vocal ensemble and accompaniment for worship settings that incorporate traditional hymns and choral styles of worship. Special attention is given to preparing and critiquing worship sets containing choral pieces, traditional hymns, metrical psalms, and Taizé.

WSA-231♦: Lighting for Contemporary Worship I 4 credits

This course introduces the concepts of conventional theatrical stage lighting for the worship experience. Students create light designs for a variety of worship settings and gain practical experience through hands-on work with campus ministry activities.

WSA-232♦: Lighting for Contemporary Worship II 4 credits

This course is a continuation of WSA-231, introducing automated/intelligent lighting systems and lighting desks as well as current practices in video presentation. Students create advanced light designs incorporating automated/intelligent lighting systems and video presentation. Practical experience is gained through work with various worship production organizations. Prerequisite: WSA-231.

WSA-261♦: Worship Summit II 0 credits

This course involves students in a guided practicum experience in which they work collaboratively to compose music, create media, and develop a production for worship ministry while engaging in spiritual formation. Students interact with faculty, mentors, and practitioners who focus on worship ministry, worship songwriting and arts, and worship production. This course emphasizes collaboration in media design.

WSA-262: Worship Summit III 0 credits

This course involves students in a guided practicum experience in which they work collaboratively to compose music, create media, and develop a production for worship ministry while engaging in spiritual formation. Students interact with faculty, mentors, and practitioners who focus on worship ministry, worship songwriting and arts, and worship production. This course emphasizes collaboration in production.

WSA-263: Worship Summit IV 0 credits

This course involves students in a guided practicum experience in which they work collaboratively to compose music, create media, and develop a production for worship ministry while engaging in spiritual formation. Students interact with faculty, mentors, and practitioners who focus on worship ministry, worship songwriting and arts, and worship production. This course emphasizes collaboration skills and skills related to worship ministry.

WSA-300: Musical Structures I 4 credits

This course introduces popular and commercial music theory. Topics include music notation, key signatures, scales, the Nashville Number System, intervals, modes, diatonic relationships and functions, and chords. Ear-training skills are also included in this course.

WSA-301: Musical Structures II 4 credits

This popular and commercial music theory course includes larger chord forms, chord functions in major and minor keys; chord substitutions; analysis of key centers in songwriting, voice leading, and melody harmonization; pentatonic, blues, and other scales and their applications, chord tones, and harmonic extensions; scale foundations for all major, minor, dominant, and diminished chords; and their application to contemporary worship music. Ear-training skills are also included in this course. Prerequisite: WSA-300.

WSA-302: Songwriting and Arranging 4 credits

This course covers principles of songwriting and arranging for a variety of worship ensembles in the context of contemporary worship music. Contemporary styles, popular song forms, chord progressions, and formation of melodic ideas are further explored. Lyric writing includes developing song ideas, the hook, rhyme scheme, and the use of literary devices. Students compose and arrange songs using DAW, MIDI, and notation software.

WSA-305♦: Songwriting II 1 credits

This course covers principles of songwriting and arranging in the context of contemporary worship music. Contemporary styles, popular song forms, chord progressions, and formation of melodic ideas are explored. Coverage of effective lyric writing includes developing song ideas, the hook, rhyme scheme, and the use of literary devices. Students develop a portfolio of songs for worship and spiritual formation in a variety of forms and styles. Prerequisite: WSA-105 or WSA-110. Co-Requisite: WSA-205.

WSA-309♦: Aural Skills II 1 credits

This course is a continuation of Aural Skills I. Students in this class continue to perform and notate increasingly difficult rhythmic patterns and note values, and perform and notate increasingly complex melodies in a variety of major and minor diatonic keys. Aural identification of simple and compound intervals and chord qualities, and analysis of extended song forms is included. Prerequisite: WSA-209. Co-Requisite: WSA-315.

WSA-315♦: Fundamentals of Music Theory for Contemporary Worship II 2 credits

This course is a continuation of WSA-215. Topics include larger chord forms, chord functions in major and minor keys; chord substitutions; analysis of key centers in song writing, voice leading, and melody harmonization; pentatonic, blues, and other scales and their applications, chord tones, and harmonic extensions; scale foundations for all major, minor, dominant, and diminished chords; and their application to contemporary worship music. Ear-training skills are also included in this course. Prerequisite: WSA-215. Co-Requisite: WSA-309.

WSA-320: Digital Audio Workstation 4 credits

This course introduces various DAW software and challenges students to begin the process of recording multi-track sessions. Students practice tracking, editing, mixing, and producing recordings according to assigned projects. Students practice creating and implementing backing tracks for a worship service. Students are required to provide their own computer and software according to university-outlined program requirements.

^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | ^Ω Non-Transferable

WSA-321♦: Psalms, Hymns, and Spiritual Songs 4 credits

In the spirit of Colossians 3:16, this course explores the relationship between the gospel of Christ, the life in Christ, and worship in the Christian community. Students are encouraged to reflect on biblical patterns of worship and praise as well as contemporary expressions as they develop understanding and habits related to personal and corporate worship.

WSA-321HN^Δ♦: Psalms, Hymns, and Spiritual Songs 4 credits

In the spirit of Colossians 3:16, this course explores the relationship between the gospel of Christ, the life in Christ, and worship in the Christian community. Students are encouraged to reflect on biblical patterns of worship and praise as well as contemporary expressions as they develop understandings and habits related to personal and corporate worship.

WSA-322^Δ♦: Theology of Worship 4 credits

This writing-intensive course is a systematic study of the biblical, historical, and theological dimensions of Christian worship. Emphasis is placed on the development of a thoroughly biblical theology of worship, analysis of historical developments that influenced current worship practices, and the ways that worship forms community and shapes individual worshippers. Prerequisites: HTH-201 and HTH-202.

WSA-322HN^Δ♦: Theology of Worship 4 credits

This writing intensive course is a systematic study of the biblical, historical, and theological dimensions of Christian worship. Emphasis is placed on the development of a thoroughly biblical theology of worship, analysis of historical developments that influenced current worship practices, and the ways that worship forms community and shapes individual worshippers. Prerequisites: HTH-201 and HTH-202.

WSA-323♦: Media Design for Contemporary Worship 4 credits

This course explores various forms of media employed in the worship production environment. Students gain an understanding of the historical use of media in worship and the effects those media have on the worship environment. Students learn principles to help them make choices concerning effective use of video, visual art, and printed material. Prerequisite: WSA-125, WSA-120.

WSA-330♦: Philosophy of Music in Christian Worship 4 credits

This course addresses worship philosophy, modes, methods, and other issues concerning the role of music in worship. The course explores the historical and contemporary use of music in worship, and its various roles in discipleship, witness, inspiration, and exaltation across the continuum of history and cultures.

WSA-331: Introduction to Worship Arts Software 4 credits

This course introduces students to notation and media software. Students gain skill through practice using the software to arrange and transcribe musical compositions and utilize visual presentation software to create content for projection in a worship center.

WSA-333♦: Stage Design for Contemporary Worship 4 credits

This course introduces stage design concepts and practices for a variety of worship settings including special events, vacation Bible schools, holiday performances, festivals, and contemporary Christian concerts.

WSA-334♦: Stagecraft and Lighting for Contemporary Worship 4 credits

This course examines the elements of designing scenery and lighting for a worship service and explores best practices of proper stagecraft.

WSA-345♦: Digital Film Production 4 credits

This course explores concepts in digital film production. Students gain understanding in preproduction, production, and postproduction. Students demonstrate their proficiency by producing a video that simulates working with a church or faith-based ministry to support their mission.

WSA-361♦: Worship Arts Project I 1 credits

This course offers students a guided experience in conjunction with a Worship Summit event. Throughout this course students work collaboratively to complete a Worship Arts Project. The course is repeatable for credit. Prerequisites: WSA-161 and WSA-261.

WSA-405♦: Arranging II 1 credits

This course is a continuation of the foundation laid in Arranging I. This course adds the arrangement of strings, brass, and woodwind combinations to fill out a complete orchestration in contemporary style. Two-, three-, four-, and five-part combinations of instruments are arranged over standard songs structures. Extended vocal arrangements are explored. Prerequisite: WSA-305.

WSA-408♦: Sound Recording 2 credits

This course explores concepts in sound recording. Students gain understanding in sound theory, modern recording techniques, non-linear editing, acoustic principles, studio etiquette, and home recording. Students demonstrate proficiency for using digital audio workstations to make their own recordings. Prerequisite: WSA-125. Co-Requisite: WSA-418.

WSA-415♦: Sound Recording and Reinforcement 4 credits

This course covers basic principles of acoustics, recording music in digital format, different digital music production software, multitrack recordings using digital sound production equipment, and setting up and designing sound reinforcement systems for large and small venues.

^Δ Writing intensive course | ♦ Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

WSA-416♦: Music Direction for Contemporary Worship 2 credits

This course covers the principles and skills necessary to lead worship. Topics include auditioning a worship team, selecting worship sets, working with a vocal and instrumental team, as well as stage presence, and worship leadership. Students work on a final worship presentation demonstrating practical knowledge of planning worship and/or concert experiences. Prerequisites: WSA-330 and WSA-423.

WSA-418♦: Sound Reinforcement 2 credits

This course explores concepts in live sound reinforcement, including assembling sound systems, setting stages for music production, and managing assets vital to the discipline of sound reinforcement. Students gain understanding for industry best practices in a live production environment and demonstrate skill in operating a live sound system. Prerequisite: WSA-125. Co-Requisite: WSA-408.

WSA-419^Ω: Worship Ministry Internship 6 credits

This course consists of an internship experience in an approved professional setting. The course includes practical experiences, academic journaling, field experience log, and culminating reflection assignment. Practicum/field experience hours: 270. Prerequisites: WSA-415 and WSA-416.

WSA-420: Audio Recording 4 credits

This course explores concepts in sound recording for the church. Students gain understanding in sound theory, modern recording techniques, non-linear editing, acoustic principles, and studio etiquette. Students demonstrate proficiency for using digital audio workstations and explore mixing techniques for purpose of producing a recording. Prerequisite: WSA-320.

WSA-423: Worship Leadership 4 credits

This course equips students to be effective worship leaders who integrate worship within a community of faith and lead God's people in faithful worship. This course develops skills for effective leadership, administration, and pastoral care within the local church and other worship gatherings. Prerequisite: WSA-322.

WSA-423HN^Δ: Worship Leadership 4 credits

This course equips students to be effective worship leaders who integrate worship throughout a community of faith and lead God's people in faithful worship. This course is designed to develop understandings, skills, and character for effective leadership, administration, and pastoral care within the local church and other worship gatherings. Prerequisite: WSA-322.

WSA-424^{Δ♦}: Christian Worldview and Media 4 credits

This writing intensive course examines the ways in which various media affect, challenge, and enhance the expression of Christian worldview. Special attention is devoted to developing technologies, the Christian life, corporate worship, and the communication of the Christian worldview through multiple modalities.

WSA-424HN^{Δ♦}: Christian Worldview and Media 4 credits

This writing intensive course examines the ways in which various media affect, challenge, and enhance the expression of Christian worldview. Special attention is devoted to developing technologies, the Christian life, corporate worship, and the communication of the Christian worldview through multiple modalities.

WSA-425: Audio Reinforcement 4 credits

This course develops students' skills in live sound reinforcement for the church, including assembling sound systems, setting stages for music production, and managing assets vital to the discipline of sound reinforcement. Emphasis is given to sound system design and industry best practices in a live worship production environment and the demonstration of skill in operating a live sound system.

WSA-429♦: Worship Arts Internship 4 credits

This course consists of an internship experience in an approved professional setting. The course includes reinforcement of all program competencies, practical experiences, academic journaling, as well as a field experience log, and culminating reflection assignment. Students should begin the internship application process after completion of 80 credit hours in the program. Practicum/field experience hours: 180. Prerequisites: WSA-423, WSA-321, and HTH-330.

WSA-435: Touring and Permanent Installation 4 credits

This course introduces subjects including engineering concepts, practices and regulations, building codes, licensing and contracts, union regulations, and rigging regulations and practices for the worship experience. Touring design for both scenery and lighting as well as standard load-in and load-out practices are also explored. Prerequisites: WSA-232 and WSA-333.

WSA-436: Worship Production Technology 4 credits

This course explores many of the key technical elements and applications utilized in the contemporary worship setting. OSHA/Safety regulations and practices, advanced technical direction, and electrical technology and rigging are among the subjects covered. Prerequisites: WSA-232 and WSA-333.

WSA-439^Ω: Worship Production Internship 6 credits

This course consists of an internship experience in an approved professional setting. The course includes practical experiences, academic journaling, field experience log, and a culminating reflection assignment. Practicum/field experience hours: 270. Prerequisites: WSA-435 and WSA-436.

WSA-445♦: Production Leadership for Worship Arts 4 credits

This course explores concepts in management and communication when working with creative teams and church leadership. This course focuses on bringing leadership to all production disciplines found in church worship services. Students learn how to coordinate and communicate with leaders in order to create weekly worship services. Prerequisite: WSA-323, WSA-423.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^Δ Honors Major Course | ^Ω Non-Transferable

WSA-451[♦]: Worship Arts Capstone Project 2 credits

This course offers students experience in planning and producing all aspects of a worship event. Throughout this course, students work collaboratively to complete a worship arts project and to prepare to seek employment in ministry. Prerequisite: 90 credit hours.

WSA-459^Ω: Worship Media Internship 6 credits

This course consists of an internship experience that offers students the ability to learn and work under the management of a worship arts team in the daily support of worship activities. Practicum/field experience hours: 270. Prerequisite: WSA-455.

WSA-461^Ω: Worship Arts Project II 1 credits

This course offers students a guided experience in conjunction with a Worship Summit event. Throughout this course students work collaboratively to complete a Worship Arts Project. The course is required of Worship Arts majors during one semester at the senior level. Prerequisite: WSA-361.

WSA-479^Ω: Worship Arts Management Internship 6 credits

This course consists of an internship experience in an approved professional setting. The course includes practical experiences, academic journaling, field experience log, and culminating reflection assignment. Practicum/field experience hours: 270. Prerequisite: WSA-476.

Worship Arts: Voice (WVA)

WVA-111[♦]: Private Voice Study I 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

WVA-112[♦]: Private Voice Study II 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

WVA-211[♦]: Private Voice Study III 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

WVA-212[♦]: Private Voice Study IV 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

WVA-310[♦]: Private Voice Study IV 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

WVA-311[♦]: Private Voice Study V 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

WVA-312[♦]: Private Voice Study VI 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

WVA-411[♦]: Private Voice Study VII 1 credits

This course in private applied vocal study concentrates on vocal technique and repertoire for the contemporary Christian musician.

Youth Ministry (YMN)

YMN-305[♦]: Philosophy and Theology of Youth Ministry 4 credits

This course explores the biblical, educational, theological, and philosophical foundations of youth ministry. Students assess their personal gifts and personalities in relation to ministry.

YMN-350[♦]: Leadership and Administration in Youth Ministry 4 credits

This course is an intensive examination of the philosophy and principles for youth ministry programming, including ministry purpose and goals, leadership development, teaching strategies, outreach strategies, budgeting, and evaluation. Prerequisite: YMN-305.

YMN-355[♦]: Adolescent Development and Faith Formation 4 credits

This course examines the developmental life stage of adolescence and the formation of faith. An emphasis is placed on the adolescent's family in its cultural setting and the developmental and spiritual needs of family members. Prerequisite: YMN-305.

YMN-450[♦]: Adolescent Culture and Evangelism 4 credits

This course focuses on sociological understanding of adolescent culture and the social problems confronting youth. By focusing on the process of contextualization, this course challenges students to assess, develop, and change paradigms in order to minister to adolescents in and out of a Christian environment. Prerequisite: YMN-305.

YMN-455[♦]: Adolescent Issues and Intervention 4 credits

This course examines skills and practices of ministry to adolescents at risk. Students explore a philosophy of pastoral care from a practical theology and biblical perspective. The course addresses issues and problems that grow out of the developmental process, disorders that begin during or are unique to adolescence, as well as intervention, prevention, and referral strategies. The course serves as "pastoral first aid" where students will learn basic helping skills. Prerequisite: YMN-305.

^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

^Δ Writing intensive course | [◆] Fulfills General Education requirement | [♯] Honors Major Course | ^Ω Non-Transferable
