



Grand Canyon University
Academic Catalog
2016-2017

Summer 2016

Academic Catalog Version Record

Summer 2016

The following is a record of the major changes made to the Grand Canyon University Academic Catalog from the Spring Update 2015-2016 (v.12) version to the Summer 2016-2017 (v.1) version. 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	5/2/16	<p>Programs/Minors Added</p> <ul style="list-style-type: none"> • Minor in Communication • Minor in Psychology <p>Programs/Minors Retired</p> <ul style="list-style-type: none"> • Bachelor of Science in Information Technology with an Emphasis in Business Entrepreneurship • Bachelor of Science in Information Technology with an Emphasis in Health IT • Bachelor of Science in Information Technology with an Emphasis in Technology Innovation <p>Course Changes</p> <ul style="list-style-type: none"> • Added the following course(s): <ul style="list-style-type: none"> ○ SPD-500TE • Retired the following course(s): <ul style="list-style-type: none"> ○ ECH-522TE, ECH-523TE, SPE-534TE, RDG-529TE, RDG-539TE, RDG-543TE, SPE-504TE, SPE-505TE, SPE-508TE • Modified the following course(s): <ul style="list-style-type: none"> ○ BHS-465, BHS-455, GOV-360, AMP-434, PSC-450, CHM-441, CHM-441L, TSL-537, TSL-546, TSL-560, MAT-380, ITT-325, ITT-430, GOV-459, CST-125, CST-225, CST-230, PSY-255, PSY-260, PSY-352, PSY-354, PSY-355, PSY-356, PSY-357, PSY-358, PSY-361, PSY-369, PSY-402, PSY-460, PSY-470, SPD-500, PCN-673, SOC-445, SOC-449, ENG-381 <p>Other Changes</p> <ul style="list-style-type: none"> ○ Initial Update to Summer 2016 ○ Updated Degrees Offered
2	5/13/16	<p>Programs/Minors Added</p> <ul style="list-style-type: none"> • Bachelor of Science in Engineering • Bachelor of Science in Engineering with an Emphasis in Robotics • Master of Science in Instructional Technology • Master of Science in Information Technology Management • Bridge to Master of Science in Information Technology Management <p>Programs/Minors Revised</p> <ul style="list-style-type: none"> • Bachelor of Arts in Digital Design with an Emphasis in Animation • Bachelor of Arts in Digital Design with an Emphasis in Web Design • Bachelor of Arts in Digital Film with an Emphasis in Screenwriting • Bachelor of Arts in Digital Film with an Emphasis in Production • Bachelor of Arts in Theatre and Drama <p>Course Changes</p> <ul style="list-style-type: none"> • Added the following course(s): <ul style="list-style-type: none"> ○ DDN-120, DDN-310, DDN-370, DDN-412, DDN-240, DDN-455, DDN-460, ESG-330, ESG-430, TEC-516, TEC-520, TEC-530, TEC-536, TEC-561, TEC-541, TEC-544, TEC-595, MIS-602, BUS-600, LDR-604, MIS-640, MIS-652, MGT-665, MIS-657, MGT-670, BUS-301, DFP-230, DFP-460, DFP-370, DFP-235, DFP-240, DFP-301, DFP-351, TRE-101, TRE-201, TRE-301, TRE-401, TRE-155, TRE-280, TRE-251, TRE-372, TRE-377, TRE-441, TRE-490 • Retired the following course(s): <ul style="list-style-type: none"> ○ ACC-651

Version	Updated	Changes Made
		Other Changes <ul style="list-style-type: none"> ○ Updated Degrees Offered ○ Updated Board of Trustees
3	5/20/16	Programs/Minors Added <ul style="list-style-type: none"> • Master of Science in Mental Health and Wellness • Master of Science in Mental Health and Wellness with an Emphasis in Christian Ministry • Master of Science in Mental Health and Wellness with an Emphasis in Community Mental Health Administration • Master of Science in Mental Health and Wellness with an Emphasis in Family Dynamics • Master of Science in Mental Health and Wellness with an Emphasis in Grief and Bereavement • Master of Science in Mental Health and Wellness with an Emphasis in Prevention Course Changes <ul style="list-style-type: none"> • Added the following course(s): <ul style="list-style-type: none"> ○ MHW-501, MHW-510, MHW-520, MHW-630, MHW-640, MHW-649, MHW-511, MHW-521, MHW-631, MHW-641, MHW-512, MHW-522, MHW-632, MHW-642, MHW-513, MHW-523, MHW-643, MHW-514, MHW-524, MHW-634, MHW-644, TSL-532TE, TSL-541TE, TSL-550TE, TSL-552TE, TSL-558TE, TSL-565TE, TSL-567TE, SPD-503TE, SPD-513TE, SPD-523TE, SPD-553TE, SPD-570TE, SPD-580TE, REA-500TE, TEC-516TE, TEC-520TE, EDU-505TE Other Changes <ul style="list-style-type: none"> ○ Updated Degrees Offered

Right to Change Requirements:

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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.

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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:

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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

Locations

Grand Canyon University – Banner Boswell
10484 W Thunderbird Blvd. Ste. 102
Sun City, AZ 85351

Grand Canyon University – Mesa
A.T. Still 5845 E Still Circle, Ste. 206
Mesa, AZ 85206

Grand Canyon University – Scottsdale
Scottsdale Healthcare - 9201 E. Mountain View, Ste. 100
Scottsdale, AZ 85258

Grand Canyon University – Tempe
1150 West Grove Parkway, Suite 101
Tempe, AZ 85283

Grand Canyon University – Tucson
Tucson Medical Center, 5099 E. Grant Rd.; Ste. 350
Tucson, AZ 85712

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 Advisors

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 2007. 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
30 North LaSalle Street, Suite 2400
Chicago, Illinois 60602-2504
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
1400 West Washington, Room 260
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, 32, 33, 35, 1606 and 1607 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.

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, Arizona Department of Education, Commission on Collegiate Nursing Education, and Commission on Accreditation of Athletic Training Education.

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 Center for International Education has access to SEVIS and may issue Forms I-20, Certificate of Eligibility for Student Status, to prospective students. For more information see the Center for International Education [website](#).

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 Business Administration, Bachelor of Science in Entrepreneurial Studies, Bachelor of Finance and Economics, Bachelor of Science in Marketing, Bachelor of Science in Sports Management, Master of Business Administration and Executive Master of Business Administration. 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 and the Arizona Department 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 and the Arizona Department of Education to offer institutional recommendations (credentials) for the certification of early childhood, elementary, secondary and special education teachers, as well as administrators.

The College of Education is a candidate for accreditation by the National Council for Accreditation of Teacher Education (NCATE), www.ncate.org. Candidacy status means that the College of Education has met preconditions for accreditation but is not accredited. The list of teacher preparation programs and advanced educator preparation programs can be found under the Notification of NCATE Candidacy section in the Academic Catalog.

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 and the Arizona Department 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 baccalaureate degree in nursing and master's degree in nursing at Grand Canyon University are accredited by the Commission on Collegiate Nursing Education (CCNE) (<http://www.aacn.nche.edu/ccne-accreditation>).

GCU's College of Nursing and Health Care Professions is approved by the Arizona State Board of Nursing. The nursing program is approved by the New Mexico Board of Nursing. The Commission on Accreditation of Athletic Training Education (CAATE) accredits the Athletic Training Education Program (<http://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 and the Arizona Department 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.

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 and the Arizona Department 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.

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/>.

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.

Kentucky

Please be advised that our educator preparation programs are NOT accredited in Kentucky by the Education Professional Standards Board and are NOT recognized for initial, additional, or renewal of certification or salary enhancement (rank change) for K-12 educators in Kentucky. For more information, please visit the Education Professional Standards Board's Website at <http://www.epsb.ky.gov/certification/outofstate.asp>.

Please check the Kentucky Council on Postsecondary Education's Website at <http://dataportal.cpe.ky.gov/acadprog.aspx> to view a listing of approved programs. For more information, please contact the Council on Postsecondary Education, 1024 Capital Center Drive, Suite 320, Frankfort, Kentucky 40601.

New Mexico

Any New Mexico residents who have a complaint can file a complaint with the New Mexico Higher Education Department, 2048 Galisteo, Santa Fe, NM 87505, 505-476-8400 or visit <http://hed.state.nm.us/institutions/complaints.aspx>.

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.

South Carolina

Grand Canyon University is licensed to recruit SC residents by the South Carolina Commission on Higher Education, 1122 Lady Street, Suite 300, Columbia, SC 29201; 803-737-2260; www.che.sc.gov. Licensure indicates only that minimum standards have been met; it is not an endorsement or guarantee of quality.

Grand Canyon University makes no guarantee that other institutions will accept credits earned at Grand Canyon University. The transfer of course/degree credit is determined by the receiving institution.

Applicant students must consult with their academic advisors concerning eligibility for employment in discipline-related fields.

Utah

The school has met the requirements of Utah Code Ann. §13-34a-04 to be a registered postsecondary school required under 34 C.F.R 600.9 to be legally authorized by the State of Utah.

Wisconsin

GCU has been approved and is legally authorized to do business in the state of Wisconsin as a private postsecondary school, subject to the provisions of §38.50 Wisconsin Statutes, and all administrative rules adopted pursuant to the statutes. Approval includes only those programs and those locations specifically approved by the Board.

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 Competencies

Domains	Competencies
<p>Leadership</p> <p>Graduates of Grand Canyon University’s Bachelor 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.</p>	<ul style="list-style-type: none"> • Graduates of the Bachelor program will be able to apply leadership models and demonstrate the capacity for leadership. • Graduates of the Bachelor program will be able to develop a clear vision that informs, inspires, and motivates others to achieve goals. • Graduates of the Bachelor program will be able to determine various leadership styles and rationale for differences.
<p>Communication</p> <p>Graduates of Grand Canyon University’s Bachelor program will be able to develop and apply intrapersonal and professional communication behaviors essential to servant leadership and rooted in Christian ethical belief.</p>	<ul style="list-style-type: none"> • Graduates of the Bachelor 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 program will be able to design and disseminate compelling messages that create understanding and desired results using a variety of traditional and innovative modalities.
<p>Global Citizenship</p> <p>Graduates of Grand Canyon University’s Bachelor 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.</p>	<ul style="list-style-type: none"> • Graduates of the Bachelor program will be able to develop long-term relationships across cultures through effective communication. • Graduates of the Bachelor 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 program will be able to apply the necessary skills to work effectively with individuals from diverse cultural backgrounds.
<p>Critical Thinking</p> <p>Graduates of Grand Canyon University’s Bachelor 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.</p>	<ul style="list-style-type: none"> • Graduates of the Bachelor 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 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 program will be able to make informed decisions based on historical, current, reliable, and valid information.

Domains	Competencies
<p>Christian Heritage</p> <p>Graduates of the Bachelor 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.</p>	<ul style="list-style-type: none"> • Graduates of the Bachelor program will be able to articulate an awareness of a Christian heritage and its effects on Western society. • Graduates of the Bachelor 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 program will be able to demonstrate the ability to make values-based decisions from the perspective of a Christian heritage.
<p>Technology</p> <p>Graduates of Grand Canyon University’s Bachelors program will be able to demonstrate efficient and effective use of technological tools. Graduates of the Bachelors program will be able to:</p>	<ul style="list-style-type: none"> • Retrieve, organize, assess, process, and safely secure information. • Demonstrate proficiency and adaptability in commonly accepted applications and devices. • 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 Competencies

Domains	Competencies
<p>Leadership</p> <p>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. Graduates of the Master’s program will be able to:</p>	<ul style="list-style-type: none"> • Utilize responsible leadership through the application of leadership models. • Integrate leadership skills that inform, inspire, and motivate others to achieve their goals. • Select effective leadership styles appropriate to the situation. • Improve their leadership by applying initiative, political sensitivity, self-discipline, and perseverance.
<p>Communication</p> <p>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. Graduates of the Master’s program will be able to:</p>	<ul style="list-style-type: none"> • Operate in a pluralistic society developing authentic relationships and contributing to their discipline, while serving and promoting community. • 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. • Design and execute clear communication, which creates understanding and achieves desired results through a variety of communication modalities.
<p>Global Citizenship</p> <p>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. Graduates of the Master’s program will be able to:</p>	<ul style="list-style-type: none"> • Guide and manage global organizations, applying business knowledge within cross-cultural contexts. • Support a global mindset that is sensitive to cultural differences and tolerant of differing perspectives, practices, and values. • Value cultural diversity in order to build more innovative and competitive organizations. • Construct responsible plans and decisions that balance the creation of economic wealth with the promotion of human welfare worldwide.
<p>Critical Thinking</p> <p>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. Graduates of the Master’s program will be able to:</p>	<ul style="list-style-type: none"> • Evaluate and synthesize personal skill sets of critical thinking, risk assessment, decision-making, analytical skills, and creativity to promote effective judgment and actions. • Utilize social judgment skills and research through gathering, sorting, analyzing, applying, and evaluating information to solve problems. • Evaluate information based on historical, current, reliable, and valid information and to utilize applications of research to impact decision-making.

Domains	Competencies
<p>Values & Ethics</p> <p>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. Graduates of the Master’s program will be able to:</p>	<ul style="list-style-type: none"> • Demonstrate cultural competence by synthesizing a variety of views and perspectives on values and ethics. • Integrate course work, professional life, life experience, and educational experience into a coherent values-based worldview. • Investigate the historical foundations of critical thought through the context of values and ethics to find meaning, construct knowledge, and deconstruct faulty thinking. • Demonstrate the ability to communicate and model a holistic ethical system.
<p>Technology</p> <p>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. Graduates of the Master’s program will be able to:</p>	<ul style="list-style-type: none"> • 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. • Develop proficiency in practices that assure the confidentiality, quality, and continuing existence of information. • Demonstrate efficiency in strategies, which will ensure efficient and effective analysis and use of information.

Mission-based Doctoral Competencies

Domains	Competencies
<p>Leadership</p> <p>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. Graduates of the Doctoral program will be able to:</p>	<ul style="list-style-type: none"> • 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. • 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. • 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.
<p>Communication</p> <p>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. Graduates of the Doctoral program will be able to:</p>	<ul style="list-style-type: none"> • 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. • Design and execute succinct synthesis of ideas and data while guiding followers through skilled use of verbal imagery, active listening skill, and audience assessment.
<p>Global Citizenship</p> <p>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. Graduates of the Doctoral program will be able to:</p>	<ul style="list-style-type: none"> • 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. • 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.
<p>Critical Thinking</p> <p>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. Graduates of the Doctoral program will be able to:</p>	<ul style="list-style-type: none"> • 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. • Create new knowledge through critical thinking by combining and integrating different opinions to further understanding in their field.

Domains	Competencies
<p>Values & Ethics</p> <p>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. Graduates of the Doctoral program will be able to:</p>	<ul style="list-style-type: none"> • 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. • Formulate leadership strategies through the context of the highest ethical standards to inform behavior. • Effect change and align belief systems in their respective organizations relative to the highest values and ethical standards. • Investigate the historical foundations of critical thought through the context of values and ethics to find meaning, construct knowledge, and deconstruct faulty thinking.
<p>Technology</p> <p>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. Graduates of the Doctoral program will be able to:</p>	<ul style="list-style-type: none"> • Direct the formulation of policies and implementation strategies for efficient and effective retrieval and organization of information. • 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. • Develop and implement at the organizational level practices that assure the confidentiality, quality, and continuing existence of information. • 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 born in the wake of World War II as the realization of a dream long held dear by the tiny congregations of Southern Baptists that called the Arizona mission frontier their home. In the fall of 1946, the Baptist General Convention of Arizona voted to organize a college. A few months later, the Convention selected the first trustees for the college, who soon secured an abandoned armory building in Prescott, Arizona, as Grand Canyon’s first campus.

The 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.

The College was first considered primarily a school for preachers, but its reputation expanded rapidly. Grand Canyon College became famous early on for its teacher education program and soon developed outstanding programs in the sciences, nursing, business, music, and the arts, while maintaining its excellence in Christian studies.

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 Baptists Convention to being self-owned by the Board of Trustees.

Four years later, in 2004, the University was struggling financially and facing the prospect of having to close its doors. Unfortunately, the University did not have a large endowment or donor base to rely upon to help solve its financial crisis. In order to preserve the University, the University was sold to a small group of investors and converted to an investment funded model. The years 2004 – 2008 were difficult for the University as its traditional campus deteriorated while the University focused primarily on online education and financial solvency. Then, in 2008, a management team with experience in Christian education, led by President Brian Mueller and Chief Operating Officer Dr. Stan Meyer, was installed and a new vision was imparted for reinvigorating the campus. In May 2008, the University raised additional funds for campus expansion through an initial public offering. Today, Grand Canyon Education, Inc., d/b/a Grand Canyon University, is a publicly traded company listed under the symbol LOPE on the NASDAQ National Market. Today, the painstaking re-engineering of Arizona’s premier private Christian university is making a college education possible – and affordable – for many who could only dream of such an opportunity.

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- Dave Brazell Stadium: David and Mildred Brazell
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- 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.

The musical score consists of eight staves of music in a single system. Each staff contains a line of lyrics. The music is written in a treble clef with a key signature of one flat (B-flat) and a 4/4 time signature. The lyrics are: "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", and "God and all man-kind."

Words and music composed by Dr. Chester S. Bagg

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. Additional programmatic admission requirements and transfer policy information can be found within the [University Policy Handbook](#).

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:

- Management

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
- Education and Effective Schools
- Instructional Leadership
- Higher Education Leadership
- Organizational Development
- Special Education

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.

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:

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

Professional Programs

Education Specialist in K-12 Leadership

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.

Post-Master of Arts in Theology Certificates

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.

- Introductory Biblical Languages

Post-Master of Science in Counseling Certificates

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

Post-Master of Science in Nursing Certificates

The Post-Master of Science in Nursing Certificate programs prepare experienced registered nurses to provide competent advanced practice nursing care through an evidence-based program of study.

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

Master Programs

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 Disorder
- Christian Studies
 - Emphasis in Christian Leadership
 - Emphasis in Pastoral Ministry
 - Emphasis in Urban Ministry
 - Emphasis in Youth Ministry
- Curriculum and Instruction
- Gifted Education
- Reading
 - Elementary Education
 - Secondary Education
- Teaching English to Speakers of Other Languages (TESOL)

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
 - Finance
 - Health Systems Management

- Leadership
- Marketing
- Project Management
- Sports Business
- Strategic Human Resource Management
- MBA/MS in Leadership
- MBA/MS in Nursing with an Emphasis in Nursing Leadership in Health Care Systems

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.

- Emphasis in:
 - Global Ministry
 - Worship Leadership

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:

- Curriculum and Instruction
 - Technology
 - Early Childhood Education*
 - Educational Administration*
 - Educational Leadership
 - Elementary Education*
 - Secondary Education*
 - Special Education*
 - Teaching English to Speakers of Other Languages
- * Initial Program – Leads to Initial Teacher Licensure
 ☿ Initial Program – Does Not Lead to 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

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
- Business Analytics
- Christian Counseling
 - Emphasis in Substance Use and Addictive Disorders
- Criminal Justice
 - Emphasis in Law Enforcement
 - Emphasis in Legal Studies
- Health Care Administration
- Health Care Informatics
- Information Technology Management
- Instructional Technology
- Leadership
 - Emphasis in Disaster Preparedness and Executive Fire Leadership
- Mental Health and Wellness
 - Christian Ministry
 - Community Mental Health Administration
 - Family Dynamics
 - Grief and Bereavement
 - Prevention
- Nursing
 - Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology
 - Family Nurse Practitioner
 - Emphasis in Nursing Education
 - Emphasis in Nursing Leadership in Health Care Systems
 - Emphasis in Public Health
 - Emphasis in Health Care Informatics
- Organizational Growth and Sales
- Organizational Leadership and Entrepreneurship
- Professional Counseling
 - Emphasis in Childhood and Adolescence Disorders
 - Emphasis in Marriage and Family Therapy
 - Emphasis in Trauma
- 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

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 Theology
- Elementary Education Teacher Preparation
- English as a Second Language (ESL)
- Forensic Psychology
- Geropsychology
- Global Ministry

- Health Psychology
- Human Factors Psychology
- Industrial and Organizational Psychology
- Life Coaching
- Secondary Education Teacher Preparation
- Worship Leadership

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 Public Relations
 - Advertising Design
- Christian Studies
 - Emphasis in Biblical Studies
 - Emphasis in Global Ministry
 - Emphasis in Philosophy
 - Emphasis in Worship Leadership
 - Emphasis in Youth Ministry
- Communication
- Dance
- Dance 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
 - Emphasis in Public History
- History for Secondary Education*
- Music
 - Emphasis in Piano Performance
 - Emphasis in Instrumental Performance
 - Emphasis in Voice Performance
- Music Education
 - Choir: Piano*
 - Choir: Voice*
 - Instrumental: Brass, Woodwind, Percussion or String*
 - Instrumental: Piano*
- Theatre and Drama
- Theatre Education*
- Worship Arts
 - Emphasis in Digital Media
 - Emphasis in Worship Management
 - Emphasis in Worship Ministry
 - Emphasis in Worship Production

* 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 Management
- Athletic Training
- Behavioral Health Science
 - Emphasis in Childhood and Adolescence Disorders
 - Emphasis in Family Dynamics
 - Emphasis in Trauma
- Biochemistry and Molecular Biology
- Biology
 - Emphasis in Pre-Medicine
 - Emphasis in Pre-Pharmacy
 - Emphasis in Pre-Physician Assistant
 - Emphasis in Pre-Physical Therapy
- Biology for Secondary Education*
- Biomedical Engineering
- Business Administration
 - Emphasis in Business Intelligence
- Business Information Systems
- Business Management
 - Emphasis in Golf Management
 - Emphasis in Tennis Management
- Business for Secondary Education
- Chemistry for Secondary Education*
- Computer Programming
- Computer Science
 - Emphasis in Big Data & Analytics
 - Emphasis in Business Entrepreneurship
 - Emphasis in Game Simulation Development
- Counseling
 - Emphasis in Addiction, Chemical Dependency, and Substance Abuse
- Early Childhood Education*
- Educational Studies
- Electrical Engineering
- Electrical Engineering Technology
- Elementary Education
 - Emphasis in English*
 - Emphasis in English as a Second Language*
 - Emphasis in Math*
 - Emphasis in Science*
- Elementary Education/Special Education*
- Engineering
 - Emphasis in Robotics
- Entrepreneurial Studies
- Environmental Science
- Exercise Science
 - Emphasis in Health Education
 - Emphasis in Physical Education
 - Emphasis in Sports Performance
- Finance and Economics
- Forensic Science
- Health Care Administration
- Health Sciences: Professional Development and Advanced Patient Care
- Hospitality Management
- Information Technology
 - Emphasis in Cyber Security
- Justice Studies
- Marketing
- Mathematics for Secondary Education*
- Mechanical Engineering
- Mechanical Engineering Technology

- Nursing
 - Pre-licensure
 - RN to BSN
- Psychology
- Public Safety and Emergency Management
- Secondary Education
 - Emphasis in Physical Education*
- Sociology
 - Emphasis in Social Work
- Sports Management
- * Initial Program – Leads to Initial Teacher Licensure

Minors

- Accounting
- Army (ROTC)
- Air Force (ROTC)
- Athletic Coaching
- Biblical Studies
- Business Administration
- Business Management
- Christian Studies
- Communication
- Dance Education

- Database-Driven Web-Based Applications Development
- Digital Design
- Digital Film
- E-Business Applications Development
- Enterprise Applications Development
- Entrepreneurial Studies
- Finance and Economics
- General Business
- Marketing
- Music – Instrumental
- Music – Piano
- Music – Vocal
- Philosophy
- Pre-Law
- Pre-Medicine
- Psychology
- Sports Management
- Spanish
- Theatre
- Worship Arts

Note: Students should contact an Enrollment Counselor or Student Services Advisor 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 Service Advisor (SSA) 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 Service Advisor (SSA).

*Math requirement is dependent on Program of Study.

Bachelor of Arts

Competency	Requirements	GCU Course Options	Total Credits
<p>University Foundations</p>	<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
<p>Effective Communication</p>	<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
<p>Christian Worldview</p>	<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
<p>Critical Thinking</p>	<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
<p>Global Awareness, Perspectives, and Ethics</p>	<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, theology, 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@gcu.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*
All Honors General Education Coursework will apply to the General Education requirement.	

*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

^ 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

Grand Canyon University's Bachelor of Science in Accounting 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 for professional practice in corporate accounting, corporate finance, or public accounting. Completing the requirements for the accounting major qualifies students to sit for the Certified Management Accountant (CMA) exam and the Certified Public Accountant (CPA) exam in most states.

Degree Requirements

Total General Education	34-40 credits
Total Accounting Major	64 credits
Total Electives	16-22 credits
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Total Bachelor of Science in Accounting Program Credits	120 credits

Accounting Major

MKT-245	Principles of Marketing	4 credits
ECN-220^f	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
MGT-420	Organizational Behavior and Management	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
ACC-370	Intermediate Accounting I	4 credits
ACC-371	Intermediate Accounting II	4 credits
ACC-360	Cost Accounting	4 credits
ACC-460	Taxation	4 credits
ACC-485	Advanced Accounting	4 credits
MGT-455	Production/ Operations Management	4 credits
ACC-491	Auditing	4 credits
BUS-485^{f,ΔΩ}	Strategic Management	4 credits
<hr/>		
Accounting Major		64 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

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

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

Total Bachelor of Science in Applied Business Analytics Program Credits	120 credits
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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	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
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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
Total Applied Business Information Systems Major	48 credits
Total Electives	32-38 credits

Total Bachelor of Science in Applied Business Information Systems Program Credits	120 credits
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Applied Business Information Systems Major

CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
ITT-115	Platforms and Network Technologies & Lab	4 credits

ITT-120	System Administration and Maintenance & Lab	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	IT Governance and Ethics	4 credits
BIT-460	Enterprise Systems Integration	4 credits
BIT-470	Strategic Information Systems Management	4 credits

Applied Business Information Systems Major	48 credits
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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 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	56 credits
Total Electives	24-30 credits

Total Bachelor of Science in Business Administration	120 credits
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Business Administration Major

MKT-245	Principles of Marketing	4 credits
ECN-220^f	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
MGT-420	Organizational Behavior and Management	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
ECN-360	Intermediate Economics	4 credits
FIN-450	Intermediate Finance	4 credits
ACC-486	Financial Statement Analysis	4 credits
MGT-455	Production/Operations Management	4 credits
MKT-450	Marketing Management	4 credits
BUS-485^{f,Ω}	Strategic Management	4 credits

Business Administration Major	56 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Bachelor of Science in Business Administration with an Emphasis in Business Intelligence

Grand Canyon University's Bachelor of Science in Business Administration with an Emphasis in Business Intelligence program prepares student for career options which include business analyst, project manager, quality assurance, e-business and m-business solution manager, and business intelligence. Students completing the program complete coursework that addresses the key functional areas of management, accounting, finance, and marketing. Students also apply business intelligence knowledge and skills within a real-world environment, preparing graduates for entry-level management of information systems positions in business.

Degree Requirements

Total General Education	34-40 credits
Total Business Administration with an Emphasis in Business Intelligence Major	68 credits
Total Electives	12-18 credits
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Total Bachelor of Science in Business Administration with an Emphasis in Business Intelligence	120 credits

Business Administration with an Emphasis in Business Intelligence Major

MKT-245	Principles of Marketing	4 credits
ECN-220^f	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
MGT-240	Introduction to Management	4 credits
BIT-200	Introduction to Computer Technology	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
SYM-400	Introduction to Database Structures	4 credits
SYM-405	Business Programming	4 credits
BIT-415	IT Project Management	4 credits
BIT-417	IT Governance and Ethics	4 credits
BIT-430	Introduction to Business Analytics	4 credits
BIT-435	Advanced Business Analytics	4 credits
BIT-440	Web Analytics	4 credits
BIT-450	Current Topics in IT and Business Intelligence	4 credits
BUS-485^{f,Δ,Ω}	Strategic Management	4 credits
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Business Administration with an Emphasis in Business Intelligence 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	76 credits
Total Electives	4-10 credits
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Total Bachelor of Science in Business Information Systems	120 credits

Business Information Systems Major

CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
ITT-115	Platforms and Network Technologies & Lab	4 credits
ITT-120	System Administration and Maintenance & Lab	4 credits
BIT-210	Object-Oriented Programming for Business	4 credits
ECN-220^f	Introduction to Economics	4 credits
MKT-245	Principles of Marketing	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
BUS-352	Business Statistics	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	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^f	Strategic Information Systems Management	4 credits
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Business Information Systems Major		76 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
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

Total Business Management Major	56 credits
Total Electives	24-30 credits
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Total Bachelor of Science in Business Management	120 credits

Business Management Major

MGT-240	Introduction to Management	4 credits
ECN-220^f	Introduction to Economics	4 credits
MKT-245	Principles of Marketing	4 credits
ACC-250	Financial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-410	Servant Leadership	4 credits
MGT-434	Human Resources	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
MGT-455	Productions/Operations Management	4 credits
MGT-492	Organizational Change and Development	4 credits
BUS-485^{f/ΔΩ}	Strategic Management	4 credits
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Business Management Major	56 credits	

Bachelor of Science in Business Management with an Emphasis in Golf Management

The Bachelor of Science in Business Management with an Emphasis in Golf Management prepares students to become professional managers in the golf industry. The program focuses on key business skills such as accounting, economics, statistics, finance, and marketing. The major courses cover the skills needed to manage golf course operations, including golf facilities management, sports merchandizing, event planning, and introduction to food and beverage management. Eight credit hours are devoted to on-course player development and the skills essential to become an effective golf instructor.

Degree Requirements

Total General Education	34-40 credits
Total Business Management with an Emphasis in Golf Management Major	72 credits
Total Electives	8-14 credits
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Total Bachelor of Science in Business Management with an Emphasis in Golf Management	120 credits

Business Management with an Emphasis in Golf Management Major

GLF-200	Introduction to Golf Management	4 credits
ECN-220^f	Introduction to Economics	4 credits
MKT-245	Principles of Marketing	4 credits
ACC-250	Financial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits

BUS-372	Sports Event Planning	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-434	Human Resources	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
GLF-450	Golf Course Management and Operations	4 credits
MKT-465	Sports Retail Management and Sales	4 credits
HOS-460	Food and Beverage Service Management and Operations	4 credits
GLF-460	Marketing and Revenue Generation in the Golf Industry	4 credits
BUS-485^f	Strategic Management	4 credits
GLF-111	Player Development: The Full Swing I	1 credits
GLF-112	Player Development: The Full Swing II	1 credits
GLF-211	Player Development: The Short Game I	1 credits
GLF-212	Player Development: The Short Game II	1 credits
GLF-311	Player Development: Playing Strategy I	1 credits
GLF-312	Player Development: Playing Strategy II	1 credits
GLF-411	Player Development: Teaching the Full Swing	1 credits
GLF-412	Player Development: Teaching the Short Game	1 credits
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Business Management with an Emphasis in Golf Management Major	72 credits	

Bachelor of Science in Business Management with an Emphasis in Tennis Management

The Bachelor of Science in Business Management with an Emphasis in Tennis Management prepares students to become professional managers in the tennis industry. The program focuses on key business skills such as accounting, economics, statistics, finance, and marketing. The major courses cover the skills needed to manage tennis operations, including tennis facilities management, sports merchandizing, event planning, and introduction to food and beverage management. Eight credit hours are devoted to player development and the skills essential to become an effective tennis instructor.

Degree Requirements

Total General Education	34-40 credits
Total Business Management with an Emphasis in Tennis Management Major	72 credits
Total Electives	8-14 credits
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Total Bachelor of Science in Business Management with an Emphasis in Tennis Management	120 credits

Business Management with an Emphasis in Tennis Management Major

TEN-200	Introduction to Tennis Management	4 credits
ECN-220^f	Introduction to Economics	4 credits
MKT-245	Principles of Marketing	4 credits

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

ACC-250	Financial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
BUS-372	Sports Event Planning	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-434	Human Resources	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
TEN-450	Tennis Club Management and Operations	4 credits
MKT-465	Sports Retail Management and Sales	4 credits
HOS-460	Food and Beverage Service Management and Operations	4 credits
TEN-460	Marketing and Revenue Generation in the Tennis Industry	4 credits
BUS-485^f	Strategic Management	4 credits
TEN-111	Player Development: Basic Principles	1 credits
TEN-112	Player Development: Youth Coaching and Cardio Tennis	1 credits
TEN-211	Player Development: Intermediate Principles	1 credits
TEN-212	Player Development: Singles Strategy and Tactics	1 credits
TEN-311	Player Development: Advanced Principles	1 credits
TEN-312	Player Development: Doubles Strategy and Tactics	1 credits
TEN-411	Player Development: Advanced Coaching Methods I	1 credits
TEN-412	Player Development: Advanced Coaching Methods II	1 credits
Business Management with an Emphasis in Tennis Management Major		72 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.

Degree Requirements

Total General Education	34-40 credits
Total Business for Secondary Education Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Business for Secondary Education	120 credits
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Total Practicum/Field Experience	115 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-220^f	Introduction to Economics	4 credits
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Business for Secondary Education Major

MKT-245	Principles of Marketing	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
BIT-200	Introduction to Computer Technology	4 credits
ACC-250	Financial Accounting	4 credits
POS-301	U.S. and Arizona Constitutions	2 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
EDU-330	Social Justice for Educators	4 credits
FIN-210	Personal Finance	4 credits
BUS-352	Business Statistics	4 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SEC-450	Data Driven Instructional Methods for Middle and Secondary Teachers	4 credits
MGT-420^f	Organizational Behavior and Management	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
BUS-485^A	Strategic Management	4 credits
BUS-435	Methods of Teaching Business in Middle and Secondary Schools	4 credits
SEC-490	Student Teaching for Secondary Education	8 credits

Business for Secondary Education Major 80 credits

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	56 credits
Total Electives	24-30 credits

Total Bachelor of Science in Entrepreneurial Studies 120 credits

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

Entrepreneurial Studies Major

MKT-245	Principles of Marketing	4 credits
ECN-220^f	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
MGT-420	Organizational Behavior and Management	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
ENT-320	Public Relations and Networking Skills	4 credits
ENT-420	New Venture Financing	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
MGT-455	Production/ Operations Management	4 credits
ENT-445	Business Planning for Entrepreneurs	4 credits
BUS-485^{ΔΩ}	Strategic Management	4 credits
Entrepreneurial Studies Major		56 credits

Bachelor of Science in Finance and Economics

Grand Canyon University's Bachelor of Science in Finance and Economics 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 positions in corporate finance and in banking, insurance, and investment companies.

Degree Requirements

Total General Education	34-40 credits
Total Finance and Economics Major	56 credits
Total Electives	24-30 credits
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Total Bachelor of Science in Finance and Economics Credits	120 credits

Finance and Economics Major

MKT-245	Principles of Marketing	4 credits
ECN-220^f	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
MGT-420	Organizational Behavior and Management	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
ECN-360	Intermediate Economics	4 credits
FIN-450	Intermediate Finance	4 credits
FIN-451	Investments and Portfolio Management	4 credits
MGT-455	Production/ Operations Management	4 credits
ECN-450	International Trade and Finance	4 credits

BUS-485^{ΔΩ}	Strategic Management	4 credits
Finance and Economics Major		56 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
Total Electives	12-18 credits
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Total Bachelor of Science in Hospitality Management Credits	120 credits

Hospitality Management Major

HOS-200	Introduction to Hospitality	4 credits
ECN-220^f	Introduction to Economics	4 credits
MKT-245	Principles of Marketing	4 credits
ACC-250	Financial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-352	Business Statistics	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^f	Strategic Management	4 credits
Hospitality Management Major		68 credits

Bachelor of Science in Marketing

Grand Canyon University's Bachelor of Science in Marketing 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 corporate marketing or brand management through major coursework that addresses marketing

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

principles, marketing management, and the key elements of advertising and public relations.

Degree Requirements

Total General Education	34-40 credits
Total Marketing Major	56 credits
Total Electives	24-30 credits
<hr/>	
Total Bachelor of Science in Marketing	120 credits

Marketing Major

MKT-245	Principles of Marketing	4 credits
ECN-220^Δ	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
MGT-420	Organizational Behavior and Management	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
MKT-345	Buyer and Consumer Behavior	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-450	Marketing Management	4 credits
BUS-485^{ΔΩ}	Strategic Management	4 credits
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Marketing Major	56 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
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
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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 a Master of Science in Information Technology

Management candidate who has a bachelor's or master's degree not related to information technology. The bridge prepares a Master of Science in Information Technology Management candidate with basic knowledge related to the information technology industry.

Degree Requirements

CST-110	Introduction to Computer Science and Information Technology Lecture & Lab	4 credits
ITT-115	Platforms and Network Technologies & Lab	4 credits
BIT-310	Information Systems Design and Development	4 credits
SYM-400	Introduction to Database Structures	4 credits
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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.

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

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

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

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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.

^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
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

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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 leadership, self-leadership, and highly effective teams. The program prepares students for advanced management or senior administration positions in the health care industry through

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

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

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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.

^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-615	Organizational Development and Change	4 credits
Master of Business Administration with an Emphasis in Leadership		54 credits

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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
MKT-660	International Marketing	4 credits

Master of Business Administration with an Emphasis in Marketing 54 credits

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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
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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

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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,

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

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
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
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Master of Business Administration with an Emphasis in Strategic Human Resource Management 54 credits

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

Master of Business Administration & Master of Science in Nursing with an Emphasis in Nursing Leadership in Health Care Systems

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
MGT-605	Leadership and Organizations	4 credits
FIN-504	Finance Principles	4 credits
ACC-502	Accounting Practices	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
NUR-502^Ω	Theoretical Foundations for Nursing Roles and Practice	4 credits
NUR-504	Health Care Research Analysis and Utilization	4 credits
NUR-508	Ethics, Policy, and Finance in the Health Care System	4 credits
LDR-600	Leadership Styles and Development	4 credits
LDR-615	Organizational Development and Change	4 credits
NUR-699^Ω	Evidence-Based Practice Project	4 credits

MBA and MSN with an Emphasis in Nursing Leadership in Health Care Systems 66 credits

With regard to the ACC-502 and FIN-504, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a

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

subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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
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Master of Science in Accounting		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, intrepeneurs, 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

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Master of Science in Organizational Growth and Sales		46 credits

With regard to the ACC-502, FIN-504, and SYM-506, students may be registered into the 600-level courses before all grades from the 500-level courses are tabulated in the student record; as a result, students may be reregistered into a 500-level course in a subsequent semester to ensure successful completion. Students with a non-business undergraduate degree who have taken courses with equivalent content at the undergraduate level may be able to waive one or more of these MBA fundamental courses into the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive the MBA fundamental courses.

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
- Bachelor of Science in Public Safety and Emergency 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 Disaster Preparedness and Executive Fire Leadership

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

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

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
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Applied Management Major

PSC-410^A	Servant Leadership	4 credits
MGT-420	Organizational Behavior and Management	4 credits
AMP-434	Human Resources	4 credits
AMP-415	Financial Decision Making	4 credits
AMP-425	Marketing Environment	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
AMP-492	Organizational Change and Development	4 credits
PSC-450	Project Management	4 credits

Action Research Project must be the last course taken in this program.

PSC-495^{ΩA}	Action Research Project	4 credits
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Applied Management Major	36 credits
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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 Public Safety and Emergency Management

Grand Canyon University's Bachelor of Science in Public Safety and Emergency Management program is a bachelor's degree completion program that provides a theoretical and applied approach to the professional education of students, while ensuring relevance to the homeland security and public safety industries. The program emphasizes the fundamentals of emergency management while providing an interdisciplinary course of study in the skills and practices of emergency planning and management. Candidates for the degree include those working in or desirous of working in one of several fields, including emergency management, fire protection, emergency medical response, law enforcement, environmental health and safety, and other related fields. The program highlights the application of research methodology; the utilization of communication skills at the personal, professional, and public level; and the development of professional skills and knowledge in the fields of public safety and emergency management.

Degree Requirements

Total General Education	34-40 credits
Total Public Safety and Emergency Management Major	36 credits
Total Electives	44-50 credits

Total Bachelor of Science in Public Safety and Emergency Management Credits	120 credits
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^A Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Public Safety and Emergency Management Major

PSC-410^A	Servant Leadership	4 credits
MGT-420	Organizational Behavior and Management	4 credits
EMM-300	History and Development of Emergency Management	4 credits
EMM-305	Emergency Operations and Techniques	4 credits
EMM-310	Mitigation Planning	4 credits
EMM-415	Disaster Response and Recovery	4 credits
EMM-442	Terrorism's Impact on Emergency Management	4 credits
PSC-450	Project Management	4 credits

Action Research Project must be the last course taken in this program.

PSC-495^{ΩA}	Action Research Project	4 credits
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Public Safety and Emergency Management Major	36 credits
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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
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With regard to SYM-506, students who have taken courses with equivalent content at the undergraduate level may be able to waive SYM 506 upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of C or better will be accepted to waive SYM 506.

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.

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

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 Disaster Preparedness and Executive Fire Leadership

Grand Canyon University's Master of Science in Leadership with an Emphasis in Disaster Preparedness and Executive Fire Leadership provides students with the skills to develop professionally and gain self-confidence in their own leadership styles. The program offers an opportunity for graduates of the National Fire Academy's Executive Fire Officer Program (NFA-EEOP) to complete a graduate degree. Students learn to integrate a conceptual foundation for an executive leadership role that emphasizes the immediate application of ethical and practical leadership skills as well as disaster preparation and crisis management. Environmental issues directly related to leadership skills development and content required of leaders in the area of emergency public safety and disaster preparedness will also be addressed.

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-610	Power, Politics, and Influence	4 credits
LDR-615	Organizational Development and Change	4 credits
LDR-620	Leading as a General Manager	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-641	Understanding Terrorism's Threats	4 credits
Master of Science in Leadership with an Emphasis in Disaster Preparedness and Executive Fire Leadership		38 credits

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

Colangelo School of Sports Business

Bachelor of Science in Sports Management

The Bachelor of Science in Sports Management prepares students to become professional managers in areas such as sports marketing, sports media, amateur and professional athletics, and sports and entertainment event planning. Coursework focuses on key business skills with specific application to the sports industry.

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
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Sports Management Major

MKT-245	Principles of Marketing	4 credits
ECN-220^f	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
BUS-232	Introduction to Sports Management	4 credits
ACC-350	Managerial Accounting	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
MGT-420	Organizational Behavior and Management	4 credits
BUS-352	Business Statistics	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
MGT-455	Production/ Operations Management	4 credits
MKT-373	Sports Marketing	4 credits
BUS-364	Sports Law	4 credits
BUS-372	Sports Event Planning	4 credits
BUS-485^{f,Δ,Ω}	Strategic Management	4 credits
Sports Management Major		56 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-101	Introduction to Leadership and Personal Development	3 credits
MSL-102	Introduction to Tactical Development	3 credits
MSL-201	Innovative Team Leadership	3 credits
MSL-202	Foundations of Tactical Leadership	3 credits
MSL-301	Adaptive Team Leadership	3 credits
MSL-302	Applied Team Leadership	3 credits
MSL-401	Adaptive Leadership	3 credits
MSL-402	Leadership in a Complex World	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-350	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 Administration

ECN-220^f	Introduction to Economics	4 credits
ECN-360	Intermediate Economics	4 credits
ACC-250	Financial Accounting	4 credits
ACC-350	Managerial Accounting	4 credits

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

FIN-350	Fundamentals of Business Finance	4 credits
FIN-450	Intermediate Finance	4 credits
MKT-245	Principles of Marketing	4 credits
MKT-450	Marketing Management	4 credits
Minor in Business Administration		32 credits

Minor in Business Management

MGT-410	Servant Leadership	4 credits
MGT-420	Organizational Behavior and Management	4 credits
MGT-434	Human Resources	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
MGT-492	Organizational Change and Development	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-435	Intrapreneurship and Innovation	4 credits
ENT-445	Business Planning for Entrepreneurs	4 credits
Minor in Entrepreneurial Studies		16 credits

Minor in Finance and Economics

ECN-220^Δ	Introduction to Economics	4 credits
ECN-360	Intermediate Economics	4 credits
ACC-250	Financial Accounting	4 credits
FIN-350	Fundamentals of Business Finance	4 credits
FIN-450	Intermediate Finance	4 credits
FIN-451	Investments and Portfolio Management	4 credits

ECN-450	International Trade and Finance	4 credits
Minor in Finance and Economics		28 credits

Minor in General Business

MKT-245	Principles of Marketing	4 credits
ECN-220	Introduction to Economics	4 credits
ACC-250	Financial Accounting	4 credits
MGT-420	Organizational Behavior and Management	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
Minor in General Business		20 credits

Minor in Marketing

MKT-245	Principles of Marketing	4 credits
MKT-345	Buyer and Consumer Behavior	4 credits
MKT-415	Promotion and Advertising	4 credits
MKT-445	Marketing Research and Reporting	4 credits
MKT-450	Marketing Management	4 credits
Minor in Marketing		20 credits

Minor in Sports Management

BUS-232	Introduction to Sports Management	4 credits
MKT-245	Principles of Marketing	4 credits
MKT-373	Sports Marketing	4 credits
BUS-340	Ethical and Legal Issues in Business	4 credits
BUS-364	Sports Law	4 credits
BUS-372	Sports Event Planning	4 credits
Minor in Sports Management		24 credits

^Δ 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

The Bridge to the Doctor of Business Administration program is designed for learners with a master's degree in a field other than business administration who desire to pursue a doctoral degree in business administration. Courses in the bridge program are graduate-level courses that are considered essential requisites to doctoral business study. Upon completion of bridge courses, learners enter the Doctor of Business Administration degree program.

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

SYM-506	Applied Business Probability and Statistics	4 credits
Bridge to Doctor of Business Administration		12 credits

Doctor of Business Administration with an Emphasis in Management

Grand Canyon University's Doctor of Business Administration with an Emphasis in Management program is designed for those who desire a deeper understanding of business theory and its application to their area of professional interest. Graduates learn to create, advance, and disseminate new knowledge in a business field and will be prepared to apply it as practitioners and experts in organizations. The degree also prepares graduates to be educators and administrators in institutions of higher learning.

Degree Requirements

RES-811^Ω	Introduction to Advanced Graduate Studies and Scholarship	3 credits
DBA-805	Management Theory in a Global Economy	3 credits
DBA-810	Contemporary Issues in Marketing	3 credits
MGT-805	Designing Organizational Structures	3 credits
DBA-815	Economics for Business Decisions	3 credits
MGT-810	Intellectual Capital in a Learning Organization	3 credits
RSD-851^Ω	Residency: Dissertation	3 credits
RES-861^Ω	Analysis of Existing Research	3 credits
DBA-820	Emerging Issues in Financial Management	3 credits
MGT-815	Managing Stakeholder Relationships	3 credits
DBA-830	Statistics for Business Research	3 credits
LDR-805	Innovation: The Last Frontier of Competitive Advantage	3 credits
MGT-820	Using Business Analytics for Competitive Advantage	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
RES-865	Research Design and Methods	3 credits
DBA-825	Creating Sustainable Competitive Advantage	3 credits
RES-871^Ω	Developing the Formal 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
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^Δ Writing intensive course | [◆] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

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
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
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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 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

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

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
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

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

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 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 Leadership with an Emphasis in K-12 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 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.

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

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

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 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

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 behavior and mental processes. The program prepares individuals to engage their knowledge and skills in cognition and instruction in applied

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

settings of teaching and/or conducting psychological research in business, government, or institutions of higher education. Core areas of instruction include five emphasis courses in cognition, research methods, and quantitative and qualitative statistics, as well as history and systems in psychology, personality, and social, biological, 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

PSY-801^Ω	Doctoral Studies in Psychology	3 credits
PSY-805	Advanced Social Psychology	3 credits
PSY-810	History and Systems of Psychology	3 credits
PSY-820	Cognitive Science	3 credits
PSY-812	Tests and Measurements	3 credits
PSY-845^Ω	Doctoral Statistics	3 credits
PSY-860	Human Learning and Cognition	3 credits
PSY-815^Ω	Ethical Issues in Psychology	3 credits
PSY-863	Cognition and Instruction	3 credits
PSY-870^Ω	Multivariate Statistics	3 credits
PSY-866	Social Cognition	3 credits
PSY-840	Personality Psychology	3 credits
PSY-828	Advanced Life Span Development	3 credits
PSY-850^Ω	Qualitative Research Methods	3 credits
PSY-843^Ω	Program Evaluation	3 credits
PSY-847	Biological Psychology	3 credits
PSY-825^Ω	Advanced Research Design	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

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 Cognition and Instruction Effective May 2015

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	Statistics	3 credits
PSY-812	Tests and Measurements	3 credits
PSY-860	Human Learning and Cognition	3 credits
RES-855	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	Ethical Issues In Psychology	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
PSY-866	Social Cognition	3 credits
PSY-885	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

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 behavior and mental processes. 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 instruction include five emphasis courses in industrial/organizational psychology, research methods, quantitative and qualitative statistics, as well as history and systems of psychology, personality, and social, biological, 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

PSY-801^Ω	Doctoral Studies in Psychology	3 credits
PSY-805	Advanced Social Psychology	3 credits
PSY-810	History and Systems of Psychology	3 credits
PSY-830	Principles of Industrial/Organizational Psychology	3 credits
PSY-832	Psychology of Leadership	3 credits
PSY-845^Ω	Doctoral Statistics	3 credits
PSY-834	Psychology of Consulting and Coaching	3 credits
PSY-815^Ω	Ethical Issues in Psychology	3 credits
PSY-836	Principles of Personnel and Human Resource Management	3 credits
PSY-870^Ω	Multivariate Statistics	3 credits
PSY-838	Testing and Assessment in the Workplace	3 credits
PSY-840	Personality Psychology	3 credits
PSY-828	Advanced Life Span Development	3 credits
PSY-850^Ω	Qualitative Research Methods	3 credits
PSY-843^Ω	Program Evaluation	3 credits
PSY-847	Biological Psychology	3 credits
PSY-825^Ω	Advanced Research Design	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	Research Continuation I	3 credits
PSY-967	Research Continuation II	3 credits

PSY-968	Research Continuation III	3 credits
PSY-969	Research Continuation IV	3 credits
PSY-970	Research Continuation V	3 credits
PSY-975	Dissertation Research Continuation	0 credits

Doctor of Philosophy in General Psychology with an Emphasis in Industrial and Organizational Psychology Effective May 2015

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	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	Statistics	3 credits
PSY-832	Psychology of Leadership	3 credits
PSY-834	Psychology of Consulting and Coaching	3 credits
RES-855	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	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	Developing the Research Proposal	3 credits
PSY-955^Ω	Dissertation I	3 credits
PSY-960^Ω	Dissertation II	3 credits

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

PSY-965^Ω	Dissertation III	3 credits
Doctor of Philosophy in General Psychology with an Emphasis in Industrial and Organizational Psychology		60 credits
<i>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:</i>		
PSY-966	Research Continuation I	3 credits
PSY-967	Research Continuation II	3 credits
PSY-968	Research Continuation III	3 credits
PSY-969	Research Continuation IV	3 credits
PSY-970	Research Continuation V	3 credits
PSY-975	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

PSY-801^Ω	Doctoral Studies in Psychology	3 credits
PSY-805	Advanced Social Psychology	3 credits
PSY-810	History and Systems of Psychology	3 credits
PSY-807	Theories of Cognition, Motivation, Collaboration, and Learning	3 credits
PSY-817	Technologies for Learning and Communication	3 credits
PSY-845^Ω	Doctoral Statistics	3 credits
PSY-821	Building Community and Social Networking	3 credits
PSY-815^Ω	Ethical Issues in Psychology	3 credits
PSY-823	Learning and Communication Design	3 credits
PSY-870^Ω	Multivariate Statistics	3 credits

PSY-827	Integrating for Learning and Communication	3 credits
PSY-840	Personality Psychology	3 credits
PSY-828	Advanced Life Span Development	3 credits
PSY-850^Ω	Qualitative Research Methods	3 credits
PSY-843^Ω	Program Evaluation	3 credits
PSY-847	Biological Psychology	3 credits
PSY-825^Ω	Advanced Research Design	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

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 *Effective May 2015*

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

PSY-802	Psychoanalysis and Psychodynamic Theory	3 credits
PSY-803	Behaviorism	3 credits
RES-825	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	Statistics	3 credits
PSY-817	Technologies for Learning and Communication	3 credits
PSY-821	Building Community and Social Networking	3 credits
RES-855	Qualitative Research Methods	3 credits
PSY-823	Learning and Communication Design	3 credits
RSD-881^Ω	Residency: Presentation of Progress or Results	3 credits
PSY-815	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	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

PSY-801^Ω	Doctoral Studies in Psychology	3 credits
PSY-805	Advanced Social Psychology	3 credits
PSY-810	History and Systems of Psychology	3 credits
PSY-831	Foundations of Performance Psychology	3 credits
PSY-833	Psychomotor Performance	3 credits
PSY-845^Ω	Doctoral Statistics	3 credits
PSY-835	Principles of Behavior Modification	3 credits
PSY-815^Ω	Ethical Issues in Psychology	3 credits
PSY-837	Applied Psychology of Leadership	3 credits
PSY-870^Ω	Multivariate Statistics	3 credits
PSY-839	Performance Enhancement	3 credits
PSY-840	Personality Psychology	3 credits
PSY-828	Advanced Life Span Development	3 credits
PSY-850^Ω	Qualitative Research Methods	3 credits
PSY-843^Ω	Program Evaluation	3 credits
PSY-847	Biological Psychology	3 credits
PSY-825^Ω	Advanced Research Design	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

Doctor of Philosophy in General Psychology with an Emphasis in Performance Psychology *Effective May 2015*

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.

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

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	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	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	Ethical Issues In Psychology	3 credits
RES-880^Ω	Formalizing the Research Prospectus	3 credits
PSY-839	Performance Enhancement	3 credits
PSY-885	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 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

^Ω 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

Notification of NCATE Candidacy

The College of Education is a candidate for accreditation by the National Council for Accreditation of Teacher Education (NCATE), www.ncate.org. Candidacy status means that the College of Education has met preconditions for accreditation but is not accredited. This candidacy covers the following initial teacher preparation programs and advanced educator preparation programs at Grand Canyon University's main campus in Phoenix, Arizona, and/or through its online modality:

- Bachelor of Science in Elementary Education (Emphases in English, Math, and Science)
- Bachelor of Science in Secondary Education (Emphases in Biology, Business Education, Chemistry, English, Math, Physical Education)
- Bachelor of Science in Elementary Education and Special Education
- Bachelor of Science in Early Childhood Education
- Bachelor of Arts in Music Education
- Bachelor of Arts in Dance Education
- Bachelor of Arts in Theater Education
- Master of Education in Early Childhood Education
- Master of Education in Elementary Education
- Master of Education in Secondary Education
- Master of Education in Special Education: Cross-Categorical
- Master of Education in Educational Administration
- Master of Arts in Teaching with Emphases in Professional Learning Communities and Teacher Leadership
- Master of Education in Curriculum and Instruction: Reading (Emphases in Elementary Education and Secondary Education)
- Master of Education in Educational Leadership

- Master of Education in Special Education for Certified Special Educators
- Master of Education in Curriculum and Instruction: Technology
- Master of Education in Teaching English to Speakers of Other Languages
- Doctor of Education in Organizational Leadership
- Doctor of Philosophy in General Psychology with Emphasis in Cognition and Instruction

However, the candidacy does not include individual education courses that the institution offers to P-12 educators for professional development, relicensure, or other purposes.

National Program Recognition

Six of the College's programs have received National Recognition status from several specialized professional associations. National Recognition indicates that the programs have been benchmarked against national expectations for teacher or principal quality and found acceptable to the association. Information about these programs can be found at www.ncate.org.

The College's nationally recognized programs are:

- Master of Education in Teaching English to Speakers of Other Languages (AP/CPE), by Teachers of English to Speakers of Other Languages (TESOL)
- Master of Education in Early Childhood Education (IP/TL), by the National Association for the Education of Young Children (NAEYC)
- Master of Education in Educational Administration (AP/PL), by the Educational Leadership Constituents Council (ELCC)
- Bachelor of Science in Early Childhood Education (IP/TL), by the National Association for the Education of Young Children (NAEYC)
- Bachelor of Science in Secondary Education (Emphasis in Physical Education) (IP/TL), by the National Association for Sport and Physical Education (NASPE)

These programs have undergone a rigorous program review process in alignment with the College's pursuit of national accreditation, a mechanism for establishing and ensuring highly effective P-12 teachers and administrators nationwide. Specialized professional associations review programs for alignment to their standards, quality of assessments, and excellence in teacher or principal preparation.

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.

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

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)

The Bachelor of Science in Early Childhood Education is a degree for students seeking knowledge and expertise in the field of early childhood development and teaching. The curriculum includes instructional strategies, teaching methodologies, assessment techniques, theories of early childhood growth and development, and the impact of family and cultural diversity on early childhood. The degree program has embedded practicum/field experience throughout the coursework, requires a student teaching component, and, upon approval, will lead to a teaching credential in Arizona. 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 Early Childhood Education Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Early Childhood Education	120 credits
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Total Practicum/Field Experience	125 hours

Early Childhood Education Major

ECH-125	Foundations of Early Childhood	4 credits
ECH-130	Educational Psychology in Early Childhood	4 credits
ECH-235	Child Growth and Development: Health, Safety, Nutrition, and Fitness	4 credits
ECH-135	Child Guidance, Management, and the Environment	4 credits
ECH-220	Quality Practices for Typical and Atypical Behaviors of Young Children	4 credits
ECH-140	Technology in the Early Childhood Classroom	4 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
POS-301	Arizona and Federal Government	2 credits
ECH-430	Early Childhood Literature	4 credits
ECH-425	Early Literacy Development	4 credits
ECH-345	Instructional Methodologies for Teaching: Math	4 credits
ECH-440	Assessing, Monitoring, and Reporting Progress of Young Children	4 credits
ECH-350	Instructional Methodologies for Teaching: Science	4 credits

ECH-340	Instructional Methodologies for Teaching: Language Arts	4 credits
ECH-325	Child, Family, Community, and Culture	4 credits
ECH-355	Instructional Methodologies for Teaching: Social Studies	4 credits
ECH-360	Instructional Methodologies for Teaching: Arts	4 credits
ESL-433N^f	Advanced Methodologies of Structured English Immersion	3 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^f}	Student Teaching: K-3	6 credits
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Early Childhood Education Major		80 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, 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	56 credits
Total Electives	24-30 credits
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Total Bachelor of Science in Educational Studies	120 credits

Educational Studies Major

EDU-210	Foundations of Education	4 credits
EDU-225	Instructional Technology	4 credits
EDU-213^f	Educational Psychology	4 credits
SPE-226^Δ	Educating the Exceptional Learner	4 credits
EDU-230	Cultural Diversity in the Classroom	4 credits
ECH-425	Early Literacy Development	4 credits
ECH-430	Early Childhood Literature	4 credits
EED-475	Curriculum, Methods, and Assessment: Literacy and Language Arts 4-8	4 credits
EDU-450^f	Classroom Engagement and Management	4 credits

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

SPE-350	Special Education Litigation & Law	4 credits
SED-435	Adolescent Literacy	4 credits
MGT-410	Servant Leadership	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
EDU-465	Faith in Learning, Leading and Serving	4 credits
Educational Studies Major		56 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-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 and 8 weeks are completed in a resource room, self-contained class, or in a special school for students with disabilities. These special education settings must include at least three or more of the following disability categories: intellectual disabilities, learning disabilities, emotional disabilities, physical/health impairments, and they 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 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 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.)

EDU-230	Cultural Diversity in the Classroom	4 credits
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Elementary Education and Special Education Major

EDU-210	Foundations of Education	4 credits
EDU-225	Instructional Technology	4 credits
SPE-226^Δ	Educating the Exceptional Learner	4 credits
EDU-213[†]	Educational Psychology	4 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
POS-301	Arizona and Federal Government	2 credits
SPE-330	Special Education Foundations and Framework	4 credits
EED-465	Curriculum, Methods, and Assessment: Social Studies	4 credits
EED-364	Curriculum, Methods and Assessment: Science and Mathematics	4 credits
SPE-359	Characteristics of Learning Disabilities and Strategies to Teach Individuals With LD	4 credits
SPE-357	Characteristics of Emotional/Behavioral Disabilities and Strategies to Teach Individuals With EBD	4 credits
SPE-351	Characteristics of Intellectual Disability and Strategies to Teach Individuals With ID	4 credits
SPE-358	Characteristics of Students with Physical and Health Impairments and Strategies to Teach Individuals With PHI	4 credits
EED-470	Curriculum, Methods, and Assessment: Literacy and Language Arts K-3	4 credits
EDU-450[†]	Classroom Engagement and Management	4 credits
EED-475	Curriculum, Methods, and Assessment: Literacy and Language Arts, 4-8	4 credits
SPE-350	Special Education Litigation and Law	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits

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

EED-480NA^Ω	Student Teaching: Elementary Session A	6 credits
SPE-448NB^Ω	Student Teaching: Cross-Categorical Session B	6 credits
Elementary and Special Education Major		80 credits

Bachelor of Science in Elementary Education and Special Education (IP/TL) Effective August 2015

(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

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

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 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 Elementary and Special Education Major	80 credits
Total Electives	0-6 credits
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Bachelor of Science in Elementary Education and Special Education	120 credits
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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^f	Child and Early Adolescent Development and Psychology	4 credits
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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
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ESL 223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
ELM 250^f	Creating and Managing Engaging Learning Environments	4 credits
POS 301	Arizona and Federal Government	2 credits
SPD-300	Professional, Ethical and Legal Practices and Policies in Special Education	4 credits
SPD-310	Collaborations and Communications in Special Education	4 credits
SPD-320	Assessment and Eligibility in Special Education: MMD	4 credits

SPD-330	Language Development with Mild to Moderate Disabilities and Disorders	4 credits
EDU-330	Social Justice for Educators	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits
ELM-350	Methods and Strategies of Teaching and Integrating Social Studies and the Arts	4 credits
ELM-360	Methods and Strategies of Teaching and Integrating Science and Health	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
SPD-400	Creating and Managing Mild to Moderate Learning Environments	4 credits
EDU 470	Research-Based Methods and Strategies of Teaching Mathematics	4 credits
EDU 480	Research-Based Methods and Strategies of Teaching English Language Arts	4 credits

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

EED-480NA^Ω	Student Teaching: Elementary Session A	6 credits
SPE-448NB^Ω	Student Teaching: Cross-Categorical Session B	6 credits
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Elementary and Special Education Major		80 credits

Bachelor of Science in Elementary Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is suitable for students who are preparing for a teaching career as an elementary teacher and who are seeking 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 along with the content knowledge to meet the needs of 21st century learners. As a teacher of Elementary Education, you will study topics such as lesson planning and assessments, classroom management, social justice, English as a Second Language, and instructional methods and strategies for a variety of content areas. All courses are directly aligned with professional teaching standards and the associated national content standards. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within many of the courses guide students through 110 hours of practicum/field experiences prior to student teaching, and the final semester of the program includes a full-time, 15-week student teaching component. 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 Elementary Education Major	56 credits
Total Electives	24-30 credits
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Bachelor of Science in Elementary Education Major	120 credits
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Total Practicum/Field Experience	110 hours

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

Elementary Education 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
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
ELM-250^{Af}	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
EDU-470	Research-Based Methods and Strategies of Teaching Mathematics	4 credits
POS-301	Arizona and Federal Government	2 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
ELM-360	Methods and Strategies of Teaching and Integrating Science and Health	4 credits
ELM-350	Methods & Strategies of Teaching & Integrating Social Studies & the Arts	4 credits
EDU-480	Research-Based Methods and Strategies of Teaching English Language Arts	4 credits
ELM-490	Student Teaching for Elementary Education Teacher Candidates	8 credits
Elementary Education Major		56 credits

Bachelor of Science in Elementary Education (Emphasis in English) (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is offered by the College of Education in conjunction with content area courses provided by the College of Humanities and Social Sciences for students who are preparing for a teaching career in elementary and middle school and are seeking initial teacher licensure. This emphasis is offered online and on the main campus.

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 Interstate Teacher Assessment and Support Consortium (InTASC) principles and Association for Childhood International standards. Content courses are aligned to the professional standards of the National Council of Teachers of English. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within many of the courses guide students through 105 hours of practicum/field experiences prior to student teaching, and the final semester of the program includes a full-time, 16-week student teaching component. Graduates of this program are prepared to become informed educators in public and private schools and other settings requiring a teaching license.

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 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 Elementary Education (Emphasis in English) Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Elementary Education (Emphasis in English)	120 credits
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Total Practicum/Field Experience	105 hours

Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

ENG-105	English Composition I	4 credits
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Elementary Education (Emphasis in English) Major

(Includes 24 credits of content courses: 20 from the major and 4 from General Education.)

EDU-210	Foundations of Education	4 credits
EDU-225	Instructional Technology	4 credits
SPE-226^A	Educating the Exceptional Learner	4 credits
EDU-230	Cultural Diversity in the Classroom	4 credits
EDU-213^f	Educational Psychology	4 credits
ENG-250	Analysis of World Literature	4 credits
ENG-260	English Literature I	4 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
POS-301	Arizona and Federal Government	2 credits
ENG-358	Introduction to English Grammar and Linguistics	4 credits
ENG-350	American Literature I	4 credits
ENG-356	The Short Story	4 credits
EED-465	Curriculum, Methods and Assessment: Social Studies	4 credits
EED-364	Curriculum, Methods, and Assessment: Science and Mathematics	4 credits
EED-470	Curriculum, Methods, and Assessment: Literacy and Language Arts, K-3	4 credits
EDU-450^f	Classroom Engagement and Management	4 credits
EED-475	Curriculum, Methods, and Assessment: Literacy and Language Arts, 4-8	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
<i>Student teaching must be taken as the last course in the program.</i>		
EED-480NA^Ω	Student Teaching: Elementary Session A	6 credits
EED-480NB^Ω	Student Teaching: Elementary Session B	6 credits

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

Elementary Education (Emphasis in English) 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 150 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 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 Elementary Education with an Emphasis in English as a Second Language Major	76 credits
Total Electives	4-10 credits
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Total Bachelor of Science in Elementary Education with an Emphasis in English as a Second Language	120 credits
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Total Practicum/Field Experience	140 hours

Elementary Education with an Emphasis in English as a Second Language 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
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
ELM-250^{Af}	Creating and Managing Engaging Learning Environments	4 credits
ELM-305	Foundational Literacy Skills and Phonics	4 credits

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

EDU-330^A	Social Justice for Educators	4 credits
EDU-470	Research-Based Methods and Strategies of Teaching Mathematics	4 credits
ESL-250	School, Community, and Family Culture	4 credits
POS-301	Arizona and Federal Government	2 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
ELM-360	Methods and Strategies of Teaching and Integrating Science and Health	4 credits
ESL-341	Linguistics	4 credits
ESL-352	Literacy Development for English Language Learners	4 credits
ESL-358	ELL Curriculum and Methods of Instruction	4 credits
ESL-365	ELL Assessment	4 credits
ELM-350	Methods and Strategies of Teaching and Integrating Social Studies and the Arts	4 credits
EDU-480	Research-Based Methods and Strategies of Teaching English Language Arts	4 credits
ESL-490	Student Teaching for Elementary Education with an ESL Emphasis	8 credits

Elementary Education with an Emphasis in English as a Second Language Major 76 credits

Bachelor of Science in Elementary Education (Emphasis in Math) (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is offered by the College of Education in conjunction with content area courses provided by the College of Humanities and Social Sciences and the College of Science, Engineering, and Technology for students who are preparing for a teaching career in elementary and middle school and are seeking initial teacher licensure. This emphasis is offered online and on the main campus.

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 Interstate Teacher Assessment and Support Consortium (InTASC) principles and Association for Childhood International standards. Content courses are aligned to the professional standards of the National Council of Teachers of Mathematics. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within many of the courses guide students through 105 hours of practicum/field experiences prior to student teaching, and the final semester of the program includes a full-time, 16-week student teaching component. Graduates of this program are prepared to become informed educators in public and private schools and other settings requiring a teaching license.

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

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 Elementary Education (Emphasis in Math) Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Elementary Education (Emphasis in Math)	120 credits
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Total Practicum/Field Experience	105 hours

Required General Education

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

[MAT-134](#) Applications of Algebra 4 credits

Elementary Education (Emphasis in Math) Major

(Includes 24 credits of content courses: 20 from the major and 4 from General Education.)

EDU-210 Foundations of Education	4 credits
EDU-225 Instructional Technology	4 credits
SPE-226^A Educating the Exceptional Learner	4 credits
EDU-230 Cultural Diversity in the Classroom	4 credits
EDU-213^f Educational Psychology	4 credits
MAT-150 Mathematics for Elementary Teachers I	4 credits
MAT-151 Mathematics for Elementary Teachers II	4 credits
MAT-250 College Algebra and Trigonometry	4 credits
MAT-260 College Geometry	4 credits
MAT-274 Probability and Statistics	4 credits
ESL-223N SEI English Language Teaching: Foundations and Methodologies	3 credits
POS-301 Arizona and Federal Government	2 credits
EED-465 Curriculum, Methods and Assessment: Social Studies	4 credits
EED-364 Curriculum, Methods, and Assessment: Science and Mathematics	4 credits
EED-470 Curriculum, Methods, and Assessment: Literacy and Language Arts, K-3	4 credits
EDU-450^f Classroom Engagement and Management	4 credits
EED-475 Curriculum, Methods, and Assessment: Literacy and Language Arts, 4-8	4 credits
ESL-433N Advanced Methodologies of Structured English Immersion	3 credits

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

EED-480NA^Q Student Teaching: Elementary Session A	6 credits
EED-480NB^Q Student Teaching: Elementary Session B	6 credits
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Elementary Education (Emphasis in Math) Major	80 credits

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

(Initial Program—Leads to Initial Teacher Licensure)

This program is offered by the College of Education in conjunction with content area courses provided by the College of Science, Engineering, and Technology for students who are preparing for a teaching career in elementary and middle school and are seeking initial teacher licensure. This emphasis is offered online and on the main campus.

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 Interstate Teacher Assessment and Support Consortium (InTASC) principles and Association for Childhood International standards. Content courses are aligned to the professional standards of the National Science Teachers Association. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within many of the courses guide students through 105 hours of practicum/field experiences prior to student teaching, and the final semester of the program includes a full-time, 16-week student teaching component. Graduates of this program are prepared to become informed educators in public and private schools and other settings requiring a teaching license.

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 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 Elementary Education (Emphasis in Science) Major	80 credits
Total Electives	0-6 credits
<hr/>	
Bachelor of Science in Elementary Education (Emphasis in Science)	120 credits
<hr/>	
Total Practicum/Field Experience	105 hours

Required General Education

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

[BIO-220](#) Environmental Science 4 credits

Elementary Education (Emphasis in Science) Major

(Includes 24 credits of content courses: 20 from the major and 4 from General Education.)

EDU-210 Foundations of Education	4 credits
EDU-225 Instructional Technology	4 credits
SPE-226^A Educating the Exceptional Learner	4 credits
EDU-230 Cultural Diversity in the Classroom	4 credits
EDU-213^f Educational Psychology	4 credits

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

PHY-102	Introduction to Physical Science	4 credits
PHY-104	Earth and Space Science	4 credits
BIO-130	Introduction to Life Sciences I	4 credits
BIO-250	Introduction to Life Sciences II	4 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
POS-301	Arizona and Federal Government	2 credits
BIO-319	Applied Nutrition	4 credits
EED-465	Curriculum, Methods and Assessment: Social Studies	4 credits
EED-364	Curriculum, Methods, and Assessment: Science and Mathematics	4 credits
EED-470	Curriculum, Methods, and Assessment: Literacy and Language Arts, K-3	4 credits
EDU-450^f	Classroom Engagement and Management	4 credits
EED-475	Curriculum, Methods, and Assessment: Literacy and Language Arts, 4-8	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits

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

EED-480NA^Ω	Student Teaching: Elementary Session A	6 credits
EED-480NB^Ω	Student Teaching: Elementary Session B	6 credits

Elementary Education (Emphasis in Science) Major 80 credits

Bachelor of Science in Secondary Education (Emphasis in Physical Education) (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is offered by the College of Education in conjunction with content area courses provided by the College of Science, Engineering, and Technology for students who are preparing for a teaching career in grades 7-12, inclusive of middle and high school, 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 Association for Sport and Physical Education (NASPE). Opportunities are provided to apply concepts, theories, and research throughout the program. Assessments within many of the courses guide students through 120 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 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 Secondary Education (Emphasis in Physical Education) Major	80 credits
Total Electives	0-6 credits
<hr/>	
Bachelor of Science in Secondary Education (Emphasis in Physical Education)	120 credits
Total Practicum/Field Experience	120 hours

Required General Education

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

EXS-335	Kinesiology	3 credits
EXS-335L	Kinesiology Lab	1 credit
EXS-340	Physiology of Exercise	3 credits
EXS-340L	Physiology of Exercise Lab	1 credit

Secondary Education (Emphasis in Physical Education) Major

Students may transfer up to 24 hours of electives for their content area credits provided they have passed the AEPA or Praxis content area exam.

EDU-210	Foundations of Education	4 credits
EDU-225	Instructional Technology	4 credits
SPE-226^Δ	Educating the Exceptional Learner	4 credits
EDU-230	Cultural Diversity in the Classroom	4 credits
EDU-213^f	Educational Psychology	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
POS-301	Arizona and Federal Government	2 credits
PED-247^Δ	Teaching Strategy in Physical Education and Exercise Science	4 credits
SED-444	Secondary Methods and Data Driven Pedagogy	4 credits
SED-455	Secondary Curriculum Development and Assessment	4 credits
SED-435	Adolescent Literacy	4 credits
PED-263	Teaching of Team Sports and Individual Activities II	4 credits
PED-344	Physical Education for Special Populations	4 credits
PED-415	Secondary School Physical Education	4 credits
HLT-485	Methods of Teaching Health and Measuring Exercise Science	4 credits
EDU-450^f	Classroom Engagement and Management	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits

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

SED-480NA^Ω	Student Teaching: Secondary Session A	6 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

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 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,

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

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
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 Gifted 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 Gifted Education program is designed for current teaching professionals with an interest in working with K-12 gifted students by working with them to develop their gifts and talents, directing programs for gifted students, or working as district level specialists in curriculum for gifted students. The format and courses of this regionally accredited program are aligned to the National Association for Gifted Children (NAGC) 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 giftedness, identifying and assessing gifted students, gifted curriculum and instruction, gifted programming, talent development, social and emotional supports for gifted students, and underserved gifted populations. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide students through 75 hours of observational and practice-based experiences. Candidates must have access to a K-12 classroom with gifted students to complete

the capstone course and program assignments. Graduates of the program may be eligible for the gifted endorsement in the state of Arizona, and are prepared to become leaders in gifted education at the K-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
SPD-503	Foundations of Gifted Education	3 credits
SPD-553	Assessing and Identifying Gifted Learners	3 credits
SPD-513	Instructional Methods in Gifted Education	3 credits
SPD-523	Creativity and Talent Development in Gifted Education	3 credits
SPD-563	Gifted Programming and Environments	3 credits
SPD-573	The Social-Emotional Needs of Gifted Learners	3 credits
SPD-583	Multicultural Gifted Education	3 credits
SPD-593^Ω	Capstone in Gifted Education	3 credits
Master of Arts in Gifted Education		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

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

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

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

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

Master of Arts in Teaching English to Speakers of Other Languages (TESOL) 32 credits

Master of Education in Curriculum and Instruction: 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.

This program is designed for educators who wish to learn to use technology to improve the success of students. Applicants to this program are required to submit a copy of a current license or provide evidence of a minimum of one year of full-time teaching experience. 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 curriculum and instruction, educational applications of technology, interactive design for the classroom, and distance learning. Courses are aligned to the International Society for Technology in Education NETS for Teachers standards. Opportunities are provided to apply concepts, theories, and research throughout the program. Assignments within each course guide students through observational and hands-on experiences. It is strongly recommended that students have access to a K-12 grade environment to complete the practicum and program assignments. Graduates of this program are prepared to become informed educators who meet the technological needs of educational settings and student populations. Each course in the program requires a benchmark.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TEC-511	Technology Foundations in Education	4 credits
TEC-537	Strategies and Integration of Productivity Software	4 credits
TEC-538	Learning in the Digital Age	4 credits
TEC-539	Digital Media in Education	4 credits
TEC-542	Development and Design of Media in Educational Settings	4 credits
TEC-551	Multimedia Instructional Strategies	4 credits
TEC-546	Assessment and Technology	4 credits
TEC-571	Distance Learning in Education	4 credits
TEC-591^Ω	Internship	4 credits

Master of Education in Curriculum and Instruction: Technology 38 credits

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

(Initial Program—Leads to Initial Teacher Licensure)

The Master of Education in Early Childhood Education (Leads to Credential) is a degree for students seeking knowledge and expertise in the field of early childhood development and teaching. The curriculum includes instructional strategies, teaching methodologies, assessment techniques, theories of early childhood growth and development, and the impact of family and cultural diversity on early childhood. All courses are directly

aligned with the Interstate Teacher Assessment and Support Consortium (InTASC), and the National Association for the Education of Young Children (NAEYC) standards. The degree program has embedded practicum experiences throughout the coursework, requires a student teaching component, and, upon approval, will lead to a teaching credential in Arizona.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 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 44 credits

Total Practicum/Field Experience Hours 125 hours

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.

POS-301	Arizona and Federal Government	2 credits
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Master of Education in Early Childhood 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 Master of Education in Early Childhood Education is a Non-Teacher Licensure degree program for candidates seeking knowledge and expertise in the field of early childhood development and teaching. The curriculum includes instructional strategies, teaching methodologies, assessment techniques, theories of early childhood growth and development, and the impact of family and cultural diversity on early childhood. All courses are directly aligned with the Interstate Teacher Assessment and Support Consortium (InTASC), and the National Association for the Education of Young Children (NAEYC) standards. The degree program has embedded practicum experiences throughout the coursework.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
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^Δ Writing intensive course | [◆] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

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
<hr/>		
Master of Education in Early Childhood Education		32 credits
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Total Practicum/Field Experience Hours		125 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
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Master of Education in Educational Administration		36 credits
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Total Practicum/Field Experience Hours		360 hours

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

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

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 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 learner and to maximize the content knowledge that the teacher candidate will possess upon graduation. Graduates of the master's in elementary education program are prepared to become informed educators in public and private schools and other settings requiring a teaching license.

Degree Requirements

EDU-525 ^Ω	Foundations in Elementary Education Graduate Studies	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
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		47 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.

Degree Requirements

EDU-525 ^Ω	Foundations in Elementary Education Graduate Studies	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
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

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

Master of Education in Elementary Education	39 credits
Total Practicum/Field Experience Hours	105 hours

Master of Education in Secondary Education (IP/TL)

(Initial Program—Leads to Initial Teacher Licensure)

This program is designed for students interested in the education of children in grades 6-12 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 student already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of educational psychology, reading strategies, teaching methods, and curriculum development. All courses are directly aligned with Interstate Teacher Assessment and Support Consortium (InTASC) principles, as well as to the standards of applicable specialized professional associations. 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 grade 6-12 classroom to complete the program and practicum assignments, which guide students through 130 hours of observational experiences. The final semester of the program includes a full-time, 16-week student teaching component. Graduates of the program are prepared to become informed educators in public and private schools and other settings requiring a teaching license. Applicants are required to produce documentation for a certifiable major in secondary education content area (24 credits) or they must complete the required credits during their program of study, either through GCU or through an accredited, GCU-approved institution, but prior to completion of the program of study. This major is any course of study commonly taught in grades 6-12 in public schools. Students/applicants are responsible for contacting their state department of education for licensure requirements and program approval. Students/applicants should consult the Grand Canyon University Academic Catalog, University Policy Handbook, and an academic advisor on current policies and procedures specific to a teacher licensure program.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
EDU-576		4 credits
EDU-536	Classroom Engagement and Management	4 credits
SPE-526	Educating Learners with Diverse Needs	4 credits
ESL-523	English Language Teaching Foundations & Methodologies	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
SED-535	Adolescent Literacy	4 credits
SED-553	Reading and Literacy Strategies for Middle and Secondary Schools	4 credits
SED-541	Secondary Theory, Methods, and Data-Driven Pedagogy	4 credits
SED-544	Secondary Curriculum Development and Assessment	4 credits

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

SED-580NA^Ω	Student Teaching: Secondary Session A	6 credits
SED-580NB^Ω	Student Teaching: Secondary Session B	6 credits

Master of Education in Secondary Education	48 credits
Total Practicum/Field Experience Hours	130 hours

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.

POS-301	Arizona and Federal Government	2 credits
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Master of Education in Secondary Education (IP/TL) Effective August 2015

(Initial Program—Leads to Initial Teacher Licensure)

This Master of Education in Secondary Education program is designed for candidates interested in the education of students in grades 6-12 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 learner already possesses. Graduates of the Master of Education in Secondary Education program are prepared to become informed educators in public and private schools and other settings requiring a teaching license. Candidates must have access to a grade 6-12 classroom to complete the program and practicum assignments, which guide them through 120 hours of observational experiences. The final semester of the Master of Education in 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

SEC-501^Ω	Foundations in Education for Graduate Studies	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
ESL-523	SEI English Language Teaching: Foundations and Methodologies	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
ESL-533	Advanced Methodologies of SEI	3 credits
SEC-580	Curriculum and Instructional Planning for Middle and High School Teachers	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		38 credits

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

Master of Education in Secondary 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.

This program is designed for students interested in the education of children in grades 6-12, but who must postpone student teaching or who do not choose to seek a teaching license. The format and courses of this regionally accredited program are tailored to meet the needs of the adult learner and maximize the content knowledge that the student already possesses. Courses are taught by experts in their respective fields who share knowledge and experience in areas of educational psychology, reading strategies, teaching methods, 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 each course guide students through observational and practice-based experiences. Students must have access to a grade 6-12 classroom to complete the program and practicum/field experience assignments, which guide students through 130 hours of observational experiences. Graduates of the program are prepared to become informed educators in the home, church, private schools, and other settings not requiring a teaching license. Students are also prepared to move into a student teaching/licensure component with Grand Canyon University should they wish to change to the program which leads to licensure prior to the posting of their degree. Students must have a minimum of 24 units in a content area commonly taught in public grade 6-12 schools to be admitted to the program.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
EDU-576	Philosophical and Social Issues in Education	4 credits
EDU-536	Classroom Engagement and Management	4 credits
SPE-526	Educating Learners with Diverse Needs	4 credits
ESL-523	English Language Teaching Foundations & Methodologies	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
SED-535	Adolescent Literacy	4 credits
SED-553	Reading and Literacy Strategies for Middle and Secondary Schools	4 credits
SED-541	Secondary Theory, Methods, and Data-Driven Pedagogy	4 credits
SED-544	Secondary Curriculum Development and Assessment	4 credits
Master of Education in Secondary Education		36 credits
Total Practicum/Field Experience Hours		130 hours

Master of Education in Secondary Education (IP/Non-TL) Effective August 2015

(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.

This Master of Education in Secondary Education program is designed for candidates interested in the education of students in grades 6-12. This program does not lead to 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 learner already possesses. Graduates of the Master of Education in Secondary Education program are prepared to become informed educators in public and private schools and other settings that do not require a teaching license. Candidates must have access to a grade 6-12 classroom to complete the program and practicum assignments, which guide them through 120 hours of observational experiences.

Degree Requirements

SEC-501^Ω	Foundations in Education for Graduate Studies	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
ESL-523	SEI English Language Teaching: Foundations and Methodologies	3 credits
SEC-525	Methods and Strategies for Middle and High School Teachers	3 credits
SEC-540	Adolescent Literacy	3 credits
ESL-533	Advanced Methodologies of SEI	3 credits
SEC-580	Curriculum and Instructional Planning for Middle and High School Teachers	3 credits

Master of Education in Secondary Education	30 credits
Total Practicum/Field Experience Hours	120 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

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

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

EDU-535^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-520	Collaborations and Communications in Special Education	3 credits
SPD-530	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-523	SEI English Language Teaching: Foundations and Methodologies	3 credits
ESL-533	Advanced Methodologies of Structured English Immersion	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

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

SPD-590^Ω	Student Teaching for Special Education Teacher Candidates	8 credits
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Master of Education in Special Education (IP/TL)		47 credits
Total Practicum/Field Experience Hours		109 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

EDU-535^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-520	Collaborations and Communications in Special Education	3 credits
SPD-530	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

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

SPD-560	Language Development with Mild to Moderate Disabilities and Disorders	3 credits
ESL-523	SEI English Language Teaching: Foundations and Methodologies	3 credits
ESL-533	Advanced Methodologies of Structured English Immersion	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: Cross-Categorical		39 credits
Total Practicum/Field Experience Hours		109 hours

Master of Education 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 program is designed for licensed teachers or administrators with an interest in working with ESL students in or out of the classroom. 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 full-time teaching experience. 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. Courses are aligned to the TESOL standards. Opportunities are provided to apply concepts, theories, and research throughout the program, but particularly in a TESOL practicum that guides students through observational and practice-based experiences. Graduates of the program are prepared to become leaders in the ESL/TESOL initiatives that districts must undertake in an ever-increasing school climate of diversity.

Degree Requirements

UNV-501^Ω	Introduction to Graduate Studies in the College of Education	2 credits
TSL-531	Foundations of Instruction for English Language Learners	4 credits
TSL-534	Methods of Teaching English and Grammar to Speakers of Other Languages	4 credits
TSL-536	English Linguistics	4 credits
TSL-537	Teaching a Second Language in the Content Areas	4 credits
TSL-545	Teaching in a Pluralistic Society	4 credits
TSL-546	Language and Reading Acquisition Theories and Research	4 credits
TSL-540	Curriculum Development and Assessment	4 credits
TSL-560^Ω	TESOL Practicum	4 credits
Master of Education in Teaching English to Speakers of Other Languages		34 credits

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

Certificate of Completion in English as a Second Language (ESL)

(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.

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

The Certificate of Completion in English as a Second Language (ESL) is a convenient program for licensed teachers or administrators with an interest in working with English as a Second Language (ESL) students inside or out of the classroom. Students who complete the certificate program are prepared to become leaders in the ESL/TESOL initiatives that districts undertake in an ever-increasing school climate of diversity.

Degree Requirements

TSL-534	Methods of Teaching English & Grammar to Speakers of Other Languages	4 credits
TSL-540	Curriculum Development and Assessment	4 credits
TSL-545	Teaching in a Pluralistic Society	4 credits
TSL-536	English Linguistics	4 credits

Certificate of Completion in English as a Second Language (ESL) 16 credits

Graduate Certificate of Completion in Elementary Education Teacher Preparation

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 Elementary Education is a convenient program for licensed teachers to further their skills in the area of elementary education. Emphasis is placed on meeting the educational needs of elementary-aged children in a variety of settings. All courses are directly aligned with specialized professional teaching standards and the associated national content standards. Students must have access to a grade 1-8 classroom to complete assignments within many of the courses which guide teacher candidates through 38 hours of observational and practice-based experiences.

Degree Requirements

ELM-500	Child Development and Psychology	3 credits
ELM-510	Creating and Managing Engaging Learning Environments	3 credits

EDU-554	Methods of Instruction and Assessment	3 credits
ELM-542	Instruction in Foundational Literacy Skills	3 credits
ESL-523	English Language Teaching Foundations & Methodologies	3 credits

Graduate Certificate of Completion in Elementary Education Teacher Preparation 15 credits

Graduate Certificate of Completion in Secondary Education Teacher Preparation

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 Secondary Education is a convenient program for licensed teachers to further their skills in the area of secondary education. Emphasis is placed on meeting the educational needs of secondary-aged children in a variety of settings. All courses are directly aligned with specialized professional teaching standards and the associated national content standards. Students must have access to a grade 6-12 classroom to complete assignments within many of the courses which guide teacher candidates through 38 hours of observational and practice-based experiences.

Degree Requirements

SEC-507	Child and Adolescent Development and Psychology	3 credits
SEC-510	Creating and Managing Engaging Learning Environments	3 credits
EDU-554	Methods of Instruction and Assessment	3 credits
SEC-542	Instruction in Adolescent Literacy	3 credits
ESL-523	English Language Teaching Foundations & Methods	3 credits

Graduate Certificate of Completion in Secondary Education Teacher Preparation 15 credits

 ^ Writing intensive course | ♦ Fulfills General Education requirement | † Honors Major Course | Ω 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	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	Dance History I	4 credits

[^] 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	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 Education (IP-TL)

(Initial Program - Leads to Initial Teacher Licensure)

The Bachelor of Arts in Dance Education is a program designed to prepare and certify candidates for the instruction of Dance Arts in a K-12 environment. All courses are directly aligned with the Interstate Teacher Assessment and Support Consortium (InTASC) principles. The program spans 120 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 Humanities and Social 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 100 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 dance practitioners by blending both the theory and the practice of dance education, dance performance, and related fields. In addition to regular classroom studies, Dance

Education majors are required to participate in the Ethington Dance Ensemble and the University Dance 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 multifaceted and prepared to succeed in today's marketplace.

Degree Requirements

Total General Education	34-40 credits
Total Dance Education Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Dance Education	120 credits

Dance Education Major

DAN-101	Introduction to Jazz Technique	1 credit
DAN-100	Introduction to Ballet Technique	1 credit
DAN-200^f	Somatics for the Dancer	2 credits
DAN-260	Jazz Technique II	1 credit
DAN-250	Ballet Technique II	1 credit
DAN-120	Introduction to Modern Technique	1 credit
DAN-130A	Dance Ensemble I-A	0.5 credit
DAN-130B	Dance Ensemble I-B	0.5 credit
EDU-213	Educational Psychology	4 credits
DAN-270	Modern Technique II	1 credit
DAN-350	Ballet Technique III	1 credit
DAN-360	Jazz Technique III	1 credit
POS-301	Arizona and Federal Government	2 credits
DAN-370	Modern Technique III	1 credit
DAN-355^A	Dance Kinesiology and Injury Prevention	4 credits
DAN-385	Choreography I: Space and Time/Design and Dance	2 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
DAN-280A	Dance Ensemble II-A	0.5 credit
DAN-280B	Dance Ensemble II-B	0.5 credit
DAN-210	Improvisation for Dance	1 credit
DAN-390^f	Choreography II: Process	2 credits
DAN-380A	Dance Ensemble III-A	0.5 credit
DAN-380B	Dance Ensemble III-B	0.5 credit
DAN-320	Technology for Dance Educators	2 credits
DAN-335	Foundations of Dance and Culture for Diverse Learners	4 credits
DAN-315^A	Dance History I	4 credits
DAN-340^A	Dance History II	4 credits
ARE-337	Integrated Arts Methods and Assessment in the Elementary School	4 credits
DAN-470	Choreography III: Performance	2 credits
DAN-450	Dance Pedagogy	2 credits
DAN-395^f	Dance Production	4 credits

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

DAN-300	Alignment and Pilates for Dance	2 credits
DAN-398	Dance Methods and Assessment in the Secondary School	4 credits
DAN-480	Dance Ensemble IV	1 credit
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits

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

ARE-480^Ω	Student Teaching: Arts Education	12 credits
Dance Education Major		80 credits
Total Practicum/Field Experience Hours		100 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.

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 – Choral: Piano 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 – Choral: Piano 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's Ethington 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.

Degree Requirements

Total General Education	34-40 credits
Total Music Education – Choir: Piano Major	98 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Music Education – Choir: Piano	138 credits

Music Education – Choir: Piano Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MUS-111	Diction: Italian	1 credit
MED-201	Instrumental Techniques: Strings	1 credit
MED-202	Instrumental Techniques: Brass	1 credit
MVC-109	Class Voice I	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
MUS-211	Diction: German	1 credit

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

MED-210	Instrumental Techniques: Clarinet and Saxophone	1 credit
MED-215	Instrumental Techniques: Double Reeds and Flutes	1 credit
MVC-259	Class Voice II	1 credit
MAP-130	Private Piano Study Majors II	2 credits
MUS-360^A	Music History I	3 credits
MUS-262	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
MUS-112	Diction: French	1 credit
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MVC-359	Class Voice III	1 credit
MAP-220	Private Piano Study Majors III	2 credits
MUS-369^f	Music History II	3 credits
MUS-351	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
ESL-223N	SEI English Language Teaching: Foundations & Methodologies	3 credits
MED-225	Instrumental Techniques: Percussion	1 credit
MVC-459	Class Voice IV	1 credit
MAP-230	Private Piano Study Majors IV	2 credits
MUS-393^f	Form and Analysis	3 credits
EDU-213	Educational Psychology	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-320	Technology for Music Educators	2 credits
MAP-320	Private Piano Study Majors V	2 credits
MUS-223	Conducting	2 credits
MUS-310	Choral Literature for Music Educators	2 credits
POS-301	Arizona and Federal Government	2 credits
MED-340	Teaching General Music in the Elementary and Secondary Schools	2 credits
MAP-330	Private Piano Study Majors VI	2 credits
MUS-326	Orchestration and Arranging	2 credits
MUS-451^f	Advanced Choral Conducting	2 credits
MED-430	Vocal Pedagogy for Music Educators	2 credits
MUS-331	Choral 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
MAP-420	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 – Choir: Piano Major		98 credits

Bachelor of Arts in Music Education – Choral: Voice (IP/TL)

Grand Canyon University's Bachelor of Arts in Music Education -Choral: Voice 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 -Choral: Voice 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's Ethington 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.

(Initial Program-Leads to Initial Teacher Licensure)

Degree Requirements

Total General Education	34-40 credits
Total Music Education – Choir: Voice Major	98 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Music Education – Choir: Voice	138 credits

Music Education – Choir: Voice Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MUS-111	Diction: Italian	1 credit
MED-201	Instrumental Techniques: Strings	1 credit
MED-202	Instrumental Techniques: Brass	1 credit
MPC-109	Class Piano I	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
MUS-211	Diction: German	1 credit
MED-210	Instrumental Techniques: Clarinet and Saxophone	1 credit
MED-215	Instrumental Techniques: Double Reeds and Flutes	1 credit
MPC-259	Class Piano II	1 credit

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

MVA-130	Private Voice Study Majors II	2 credits
MUS-360^A	Music History I	3 credits
MUS-262	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
MUS-112	Diction: French	1 credit
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MPC-359	Class Piano III	1 credit
MVA-220	Private Voice Study Majors III	2 credits
MUS-369^f	Music History II	3 credits
MUS-351	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
ESL-223N	SEI English Language Teaching: Foundations & Methodologies	3 credits
MED-225	Instrumental Techniques: Percussion	1 credit
MPC-459	Class Piano IV	1 credit
MVA-230	Private Voice Study Majors IV	2 credits
MUS-393^f	Form and Analysis	3 credits
EDU-213	Educational Psychology	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-320	Technology for Music Educators	2 credits
MVA-320	Private Voice Study Majors V	2 credits
MUS-223	Conducting	2 credits
MUS-310	Choral Literature for Music Educators	2 credits
POS-301	Arizona and Federal Government	2 credits
MED-340	Teaching General Music in the Elementary and Secondary Schools	2 credits
MVA-330	Private Voice Study Majors VI	2 credits
MUS-326	Orchestration and Arranging	2 credits
MUS-451^f	Advanced Choral Conducting	2 credits
MED-430	Vocal Pedagogy for Music Educators	2 credits
MUS-331	Choral 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
MVA-420	Private Voice Study Majors VII	2 credits
MEN-318^Ω	Collaborative Music Ensemble Majors	0 credit
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: Voice Major		98 credits

Bachelor of Arts in Music Education – Instrumental: Brass, Woodwind, Percussion, or Strings (IP/TL)

Grand Canyon University's Bachelor of Arts in Music Education –Instrumental: Brass, Percussion, Woodwind, Strings 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 –Instrumental: Brass, Percussion, Woodwind, Strings 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's Ethington 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.

(Initial Program-Leads to Initial Teacher Licensure)

Degree Requirements

Total General Education	34-40 credits
Total Music Education – Instrumental: Brass, Woodwind, Percussion or Strings Major	98 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Music Education – Instrumental: Brass, Woodwind, Percussion or Strings	138 credits

Music Education – Instrumental: Brass, Woodwind, Percussion or Strings Major

Degree Requirements

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-202	Instrumental Techniques: Brass	1 credit
MPC-109	Class Piano I	1 credit
MBE-115	Private Applied Instruction I	2 credits
MBE-113	Private Applied Instruction Secondary I	1 credit
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
MED-210	Instrumental Techniques: Clarinet and Saxophone	1 credit

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

MED-215	Instrumental Techniques: Double Reeds and Flutes	1 credit
MPC-259	Class Piano II	1 credit
MBE-125	Private Applied Instruction II	2 credits
MUS-360^A	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
POS-301	Arizona and Federal Government	2 credits
MPC-359	Class Piano III	1 credit
MBE-215	Private Applied Instruction III	2 credits
MUS-369^f	Music History II	3 credits
MUS-351	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
ESL-223N	SEI English Language Teaching: Foundations & Methodologies	3 credits
MVC-109	Class Voice I	1 credit
MPC-459	Class Piano IV	1 credit
MBE-225	Private Applied Instruction IV	2 credits
MUS-393^f	Form and Analysis	3 credits
MED-220	Marching Band Techniques	1 credit
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MVC-259	Class Voice II	1 credit
MBE-315	Private Applied Instruction V	2 credits
MUS-406	Jazz Techniques	1 credit
MUS-223	Conducting	2 credits
EDU-213	Educational Psychology	4 credits
MED-340	Teaching General Music in the Elementary and Secondary Schools	2 credits
MBE-325	Private Applied Instruction VI	2 credits
MUS-326	Orchestration and Arranging	2 credits
MUS-452^f	Advanced Instrumental Conducting	2 credits
MUS-327	Band Literature for Music Educators	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
MBE-415	Private Applied Instruction VII	2 credits
MEN-318^Ω	Collaborative Music Ensemble Majors	0 credit
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 - Instrumental: Piano 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 - Instrumental: Piano 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's Ethington 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.

(Initial Program-Leads to Initial Teacher Licensure)

Degree Requirements

Total General Education	34-40 credits
Total Music Education – Instrumental: Piano Major	98 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Music Education – Instrumental: Piano Major	138 credits

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-202	Instrumental Techniques: Brass	1 credit
MBE-113	Private Applied Instruction Secondary I	1 credit
MVC-109	Class Voice I	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

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

MED-225	Instrumental Techniques: Percussion	1 credit
MED-210	Instrumental Techniques: Clarinet and Saxophone	1 credit
MED-215	Instrumental Techniques: Double Reeds and Flutes	1 credit
MVC-259	Class Voice II	1 credit
MAP-130	Private Piano Study Majors II	2 credits
MUS-360^A	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
POS-301	Arizona and Federal Government	2 credits
MAP-220	Private Piano Study Majors III	2 credits
MBE-123	Private Applied Instruction- Secondary II	1 credit
MUS-369^f	Music History II	3 credits
MUS-351	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
ESL-223N	SEI English Language Teaching: Foundations & Methodologies	3 credits
MBE-213	Private Applied Instruction- Secondary III	1 credit
MVC-359	Class Voice III	1 credit
MAP-230	Private Piano Study Majors IV	2 credits
MUS-393^f	Form and Analysis	3 credits
MED-220	Marching Band Techniques	1 credit
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MED-335	Fundamentals of Music and Culture for Diverse Learners	3 credits
MVC-259	Class Voice IV	1 credit
MUS-406	Jazz Techniques	1 credit
MAP-320	Private Piano Study Majors V	2 credits
MUS-223	Conducting	2 credits
EDU-213	Educational Psychology	4 credits
MED-340	Teaching General Music in the Elementary and Secondary Schools	2 credits
MAP-330	Private Piano Study Majors VI	2 credits
MUS-326	Orchestration and Arranging	2 credits
MUS-452^f	Advanced Instrumental Conducting	2 credits
MUS-327	Band Literature for Music Educators	2 credits
MBE-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
MAP-420	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		98 credits

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 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.

Degree Requirements

Total General Education	34-40 credits
Total Music with an Emphasis in Instrumental Performance Major	66 credits
Total Electives	14-20 credits
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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
MUS-160	Music Theory II	3 credits
MUS-160L	Music Theory II Lab (Aural Skills and Musicianship)	1 credit
MVC-109	Class Voice I	1 credit
MPC-259	Class Piano II	1 credit
MBE-125	Private Applied Instruction II	2 credits
MUS-360^A	Music History I	3 credits
MUS-262	Music Theory III	3 credits
MUS-262L	Music Theory III Lab (Aural Skills and Musicianship)	1 credit
MVC-259	Class Voice II	1 credit
MPC-359	Class Piano III	1 credit

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

MBE-215	Private Applied Instruction III	2 credits
MBE-113	Private Applied Instruction Secondary I	1 credit
MUS-369^f	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	Class Piano IV	1 credit
MBE-225	Private Applied Instruction IV	2 credits
MBE-123	Private Applied Instruction-Secondary II	1 credit
MUS-393^f	Form and Analysis	3 credits
MUS-378^Δ	Chamber Music Literature	2 credits
MBE-315	Private Applied Instruction V	2 credits
MBE-213	Private Applied Instruction-Secondary III	1 credit
MEN-318^Ω	Collaborative Music Ensemble Majors	0 credit
MUS-223	Conducting	2 credits
MUS-379^Δ	Symphonic Literature	2 credits
MBE-325	Private Applied Instruction VI	2 credits
MBE-223	Private Applied Instruction-Secondary IV	1 credit
MAP-390^Ω	Junior Recital	0 credit
MUS-326	Orchestration and Arranging	2 credits
MUS-452^f	Advanced Instrumental Conducting	2 credits
MBE-415	Private Applied Instruction VII	2 credits
MBE-313	Private Applied Instruction-Secondary V	1 credit
MUS-394	Counterpoint	3 credits
MBE-425	Private Applied Instruction VIII	2 credits
MBE-323	Private Applied Instruction-Secondary VI	1 credit
MAP-490^Ω	Senior Recital	0 credit
Music with an Emphasis in Instrumental Performance Major		66 credits

Bachelor of Arts in Music with an Emphasis in Piano Performance

The Bachelor of Arts in Music with an Emphasis in Piano Performance 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.

Degree Requirements

Total General Education	34-40 credits
Total Music with an Emphasis in Piano Performance Major	66 credits
Total Electives	14-20 credits
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Total Bachelor of Arts in Music with an Emphasis in Piano Performance	120 credits

Music with an Emphasis in Piano Performance Major

MUS-130	Music Theory	3 credits
MUS-130L	Music Theory I Lab (Aural Skills and Musicianship)	1 credit
MVC-109	Class Voice I	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
MVC-259	Class Voice II	1 credit
MAP-130	Private Piano 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
MVC-359	Class Voice III	1 credit
MAP-220	Private Piano Study Majors III	2 credits
MUS-369^f	Music History II	3 credits
MUS-351	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
MVC-459	Class Voice IV	1 credit
MAP-230	Private Piano Study Majors IV	2 credits
MUS-393^f	Form and Analysis	3 credits
MUS-370^Δ	Piano Literature I	2 credits
MAP-320	Private Piano Study Majors V	2 credits
MUS-223	Conducting	2 credits
MUS-377^Δ	Piano Literature II	2 credits
MAP-330	Private Piano Study Majors VI	2 credits
MAP-390^Ω	Junior Recital	0 credit
MUS-326	Orchestration and Arranging	2 credits
MUS-451^f	Advanced Choral Conducting	2 credits
MUS-417	Collaborative Piano I	2 credits
MUS-427	Piano Pedagogy I	2 credits
MAP-420	Private Piano Study Majors VII	2 credits
MUS-428	Piano Pedagogy II	2 credits
MUS-394	Counterpoint	3 credits
MUS-418	Collaborative Piano II	2 credits
MAP-430	Private Piano Study Majors VIII	2 credits
MAP-490^Ω	Senior Recital	0 credit
Music with an Emphasis in Piano Performance Major		66 credits

Bachelor of Arts in Music with an Emphasis in Voice Performance

The Bachelor of Arts in Music with an Emphasis in Voice Performance 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

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

preparing students for a variety of careers both within and outside the field.

Degree Requirements

Total General Education	34-40 credits
Total Music with an Emphasis in Voice Performance Major	66 credits
Total Electives	14-20 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
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-360^A	Music History I	3 credits
MUS-211	Diction: German	1 credit
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
MVA-220	Private Voice Study Majors III	2 credits
MUS-369^f	Music History II	3 credits
MUS-112	Diction: French	1 credit
MUS-351	Music Theory IV	3 credits
MUS-351L	Music Theory IV Lab (Aural Skills and Musicianship)	1 credit
MPC-459	Class Piano IV	1 credit
MVA-230	Private Voice Study Majors IV	2 credits
MUS-393^f	Form and Analysis	3 credits
MUS-375^A	Song Literature I	2 credits
MAP-313	Private Piano Study Secondary Instrument V	1 credit
MVA-320	Private Voice Study Majors V	2 credits
MEN-318^Ω	Collaborative Music Ensemble Majors	0 credit
MUS-223	Conducting	2 credits
MUS-376^A	Song Literature II	2 credits
MAP-323	Private Piano Study Secondary Instrument VI	1 credit
MVA-330	Private Voice Study Majors VI	2 credits
MAP-390^Ω	Junior Recital	0 credit
MUS-326	Orchestration and Arranging	2 credits
MUS-451^f	Advanced Choral Conducting	2 credits
MUS-455	Vocal Pedagogy	2 credits

MAP-413	Private Piano Study Secondary Instrument VII	1 credit
MVA-420	Private Voice Study Majors VII	2 credits
MUS-394	Counterpoint	3 credits
MVA-430	Private Voice Study Majors VIII	2 credits
MAP-490^Ω	Senior Recital	0 credit
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Music with an Emphasis in Voice Performance Major		66 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 Public Relations with an Emphasis in Advertising Design

The Advertising 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 in the Advertising Design emphasis 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 Agency 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.

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

Degree Requirements

Total General Education	34-40 credits
Total Advertising and Public Relations with an Emphasis in Advertising Design Major	64 credits
Total Electives	16-22 credits

Total Advertising and Public Relations with an Emphasis in Advertising Design Major	120 credits
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Advertising and Public Relations with an Emphasis in Advertising Design

ADV-110	Fundamentals of Advertising	4 credits
COM-100	Fundamentals of Communication	4 credits
DDN-110	Design Fundamentals	4 credits
ADV-250^f	Advanced Design Fundamentals	4 credits
MKT-245	Principles of Marketing	4 credits
DDN-300	Web Design I	4 credits
ADV-260^A	Advertising Copywriting	4 credits
MKT-345	Buyer and Consumer Behavior	4 credits
ADV-350^A	Digital Advertising Communication	4 credits
ADV-340^f	Media Law and Ethics	4 credits
ADV-355	Image Creation	4 credits
DDN-350	Web Design II	4 credits
ADV-370	Design Agency I	4 credits
ADV-455	Design Agency 2	4 credits
ADV-470	Design Agency 3	4 credits
DDN-475	Advanced Design Practicum	4 credits

Advertising and Public Relations with an Emphasis in Advertising Design	64 credits
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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, a 35mm DSLR camera, and a subscription to the Adobe Creative Cloud for the duration of their program. Animation students are required to have a graphics tablet, and many web design students like to use them.

Technology Requirements

Students can view the programmatic technology requirements in the University Policy Handbook.

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
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Digital Design with an Emphasis in Animation Major

DDN-100	Survey of the Visual Arts	4 credits
DDN-105	Drawing for the Visual Arts	4 credits
DDN-110	Design Fundamentals	4 credits
DDN-215	Digital Photography I	4 credits
DDN-210	Designing with Type	4 credits
DDN-205	Figure Drawing	4 credits
DDN-220	2D Animation Design	4 credits
DDN-230	Sculpture	4 credits
DDN-300	Web Design I	4 credits
DDN-330	3D Modeling Design I	4 credits
DDN-305	Drawing for Animation	4 credits
DDN-340^f	History of Design	4 credits
DDN-315	Digital Photography II	4 credits
DDN-360	3D Modeling Design II	4 credits
DDN-365	3D Animation and the Mechanics of Motion	4 credits
DDN-400	Business for the Design Professional	4 credits
DDN-410	3D Short Film Production	4 credits
DDN-415	3D Visual Effects and Lighting	4 credits
DDN-420	Advanced Animation	4 credits
DDN-475^{f,Ω}	Advanced Design Practicum	4 credits

Digital Design with an Emphasis in Animation Major	80 credits
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Bachelor of Arts in Digital Design with an Emphasis in Animation *Effective August 2016*

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.

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

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
<hr/>	
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^f	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	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

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 will learn to plan, analyze, and create visual solutions to communication problems for the global world. The program will focus on the development of creativity, communication, and problem-solving skills that demonstrate critical thinking and ethical leadership.

The program covers design theory and application, including color, typography, illustration, photography, and composition principles necessary to prepare print- or Web-based design. Students will also create interactive computer graphics using state-of-the-art technologies standard in the computer graphics and design industries. Students are introduced to the principles of animation and create animations demonstrating these principles for inclusion in their professional portfolio.

Courses are taught by experts in their respective fields who share knowledge and experience in areas of visual design, Web technologies, and animation. Instructors will expose students to the expanding opportunities in the field of graphic and Web design, advertising, animation, e-learning, and gaming industries. Assignments within each course guide students through historical survey, theoretical application, and collaborative team-based simulations in a studio environment. Students are encouraged to participate in the student chapter of AIGA and compete in local, national, and international competitions. Graduates of this program are prepared for entry-level positions within the expanding design industry.

This program provides an opportunity for students to further study emerging Web technologies used in e-commerce and social media sites. Students will study HTML, CSS, XML, JavaScript, graphic applications, and multimedia products used in the development of interactive and multimedia components found on many dynamic Web sites. Internet theory, Web page standards and policies, usability studies, e-commerce tools, and gaming on the Web will be researched and applied.

Technology Requirements

Students can view the programmatic technology requirements in the University Policy Handbook.

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
<hr/>	
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-105	Drawing for the Visual Arts	4 credits
DDN-110	Design Fundamentals	4 credits
DDN-215	Digital Photography I	4 credits
DDN-210	Designing with Type	4 credits

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

DDN-205	Figure Drawing	4 credits
DDN-220	2D Animation Design	4 credits
DDN-230	Sculpture	4 credits
DDN-300	Web Design I	4 credits
DDN-330	3D Modeling Design I	4 credits
DDN-340^f	History of Design	4 credits
DDN-315	Digital Photography II	4 credits
DDN-350	Web Design II	4 credits
DDN-355	Content Management Systems	4 credits
DDN-335	Web Applications	4 credits
DDN-400	Business for the Design Professional	4 credits
DDN-430	Programming for the Web I	4 credits
DDN-440	Interactive Web Design	4 credits
DDN-450	Programming for the Web II	4 credits
DDN-475^f	Advanced Design Practicum	4 credits
Digital Design with an Emphasis in Web Design Major		80 credits

Bachelor of Arts in Digital Design with an Emphasis in Web Design *Effective August 2016*

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.

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
<hr/>	
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^f	History of Design	4 credits
DDN-450	Programming for the Web II	4 credits
DDN-455	Designing for New Technologies	4 credits
DDN-400	Business for the Design Professional	4 credits
DDN-440	Interactive Web Design	4 credits
DDN-460	Advanced Web Projects	4 credits
DDN-475^f	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

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

Digital Film with an Emphasis in Production Major

DFP-101^f	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^A	Screenwriting I	4 credits
DFP-223	Cinematography	4 credits
DFP-225	Nonlinear Editing	4 credits
DFP-331	Visual Storytelling	4 credits
DFP-311^f	Cinema Directing	4 credits
DFP-351	Audio Production for Cinema and Television	4 credits
DFP-301	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-480^Ω	Digital Production Practicum	4 credits
Digital Film with an Emphasis in Production Major		60 credits

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
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Total Bachelor of Arts in Digital Film with an Emphasis in Screenwriting	120 credits

Digital Film with an Emphasis in Screenwriting Major

DFP-101^f	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^A	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^f	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
DFP-457^A	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 seeks to provide students with the foundation needed to pursue careers in acting, design, stage management, directing, 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. Upon completion of this program, students are prepared and encouraged to pursue a master's degree.

Students pursuing a theatre major will study topics such as acting, stage direction, and production fundamentals such as lighting, scene design, and stage design. Students will study dramatic literature including the major periods dating from early Greece to the Restoration. Students will be introduced to the art and craft of designing and executing two-dimensional, three-dimensional and special effects stage makeup. Another topic of exploration is stagecraft, which includes set and prop construction. Acceptance into the Bachelor of Arts in Theatre and Drama program is contingent upon an audition and an interview, at which time scholarships may also be awarded.

Degree Requirements

Total General Education	34-40 credits
Total Theatre and Drama Major	40 credits
Total Electives	40-46 credits
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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-253	Acting II	4 credits
TRE-325^{fA}	Theatre History I: Greek to Restoration	4 credits
TRE-245	Fundamentals of Theatrical Design	4 credits
TRE-335	Dramatic Literature I	4 credits
TRE-330^{fA}	Theatre History II: 18th Century to Present	4 credits

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

TRE-339	Dramatic Literature II	4 credits
TRE-439^f	Stage Direction	4 credits
TRE-475	Stage Lighting and Design	4 credits
Arts in Theatre and Drama Major		40 credits

Bachelor of Arts in Theatre and Drama *Effective August 2016*

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
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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^f	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 Education (IP-TL)

(Initial Program - Leads to Initial Teacher Licensure)

The Bachelor of Arts in Theatre Education degree is designed for those who are seeking a career teaching theatre to students in grades K-12. Completion of this program may lead to initial teacher licensure.

The theatre education degree 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 University's Ethington Theatre Series 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 theatre education training creates a graduate who is multi-faceted and prepared to succeed in today's marketplace.

All courses in the theatre degree are directly aligned with the Interstate New 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 approximately 100 hours of observational and practice-based field 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. Students and applicants are responsible for contacting their state department of education for licensure requirements and program approval. Acceptance into the Bachelor of Arts in Theatre Education program is contingent upon an audition and an interview, at which time scholarships may also be awarded.

All courses in the theatre degree are directly aligned with the Interstate New 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 approximately 100 hours of observational and practice-based field 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. Students and applicants are responsible for contacting their state department of education for licensure requirements and program approval. Acceptance into the Bachelor of Arts in Theatre Education program is contingent upon an audition and an interview, at which time scholarships may also be awarded.

Degree Requirements

Total General Education	34-40 credits
Total Theatre Education Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Theatre Education	120 credits

Theatre Education Major

TRE-130	Stagecraft	4 credits
TRE-145	Acting I	4 credits
TRE-253	Acting II	4 credits
TRE-245	Fundamentals of Theatrical Design	4 credits

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

TRE-325^Δ	Theatre History I: Greek to Restoration	4 credits
TRE-330^Δ	Theatre History II: 18th Century to Present	4 credits
TRE-335	Dramatic Literature I	4 credits
TRE-339	Dramatic Literature II	4 credits
TRE-439	Stage Direction	4 credits
TRE-475	Stage Lighting and Design	4 credits
TRE-327	Theatre Pedagogy	2 credits
ARE-337	Integrated Arts Methods and Assessment in the Elementary School	4 credits
TRE-347	Theatre Methods and Assessment in the Secondary School	4 credits
TRE-421	Foundations of Theatre and Culture for Diverse Learners	4 credits
TRE-320	Technology for Theatre Educators	2 credits
EDU-213	Educational Psychology	4 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
POS-301	Arizona and Federal Government	2 credits
<i>Student teaching must be the last course taken in the program.</i>		
ARE-480^Ω	Student Teaching: Arts Education	12 credits
Theatre Education Major		80 credits
Total Practicum/Field Experience Hours		100 hours

Minors

Minor in Dance Education

DAN-100	Introduction to Ballet Technique	1 credit
DAN-101	Introduction to Jazz Technique	1 credit
DAN-120	Introduction to Modern Technique	1 credit
DAN-200	Somatics for the Dancer	2 credits
DAN-210	Improvisation for Dance	1 credit
DAN-385	Choreography I: Space and Time/Design and Dance	2 credits
DAN-355^Δ	Dance Kinesiology and Injury Prevention	4 credits
DAN-315^Δ	Dance History I	4 credits
DAN-310	Technology for Dance Educators	3 credits
DAN-450[†]	Dance Pedagogy	2 credits
Minor in Dance Education		21 credits

Minor in Digital Design

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[†]	History of Design	4 credits
DDN-400	Business for the Design Professional	4 credits

Minor in Digital Design	24 credits
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Minor in Digital Film

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

MUS-125	Music Theory I	4 credits
MUS-155	Music Theory II	4 credits
MUS-210	Music Appreciation	4 credits
Applied Instruction (MBE , MIE , MSE or MWE)		8 credits
Four Semesters of Music Ensemble		0 credit
MED-200	Instrumental Techniques: Low Brass	1 credit
MED-205	Instrumental Techniques: High Brass	1 credit
MED-210	Instrumental Techniques: Clarinet and Saxophone	1 credit
MED-215	Instrumental Techniques: Double Reeds and Flutes	1 credit
Minor in Music - Instrumental		24 credits

Minor in Music – Piano

MUS-125	Music Theory I	4 credits
MUS-155	Music Theory II	4 credits
MUS-210	Music Appreciation	4 credits
Applied Instruction/Private Piano Study (MAP)		8 credits
Four Semesters of Music Ensemble (MEN)		0 credit
MUS-370^Δ	Piano Literature I	2 credits
MUS-377^Δ	Piano Literature II	2 credits
Minor in Music - Piano		24 credits

Minor in Music – Vocal

MUS-125	Music Theory I	4 credits
MUS-155	Music Theory II	4 credits
MUS-210	Music Appreciation	4 credits
Applied Instruction/Private Voice Study (MVA)		8 credits
Four Semesters of Music Ensemble		0 credit
MUS-375^Δ	Song Literature I	2 credits
MUS-376^Δ	Song Literature II	2 credits
Minor in Music - Vocal		24 credits

Minor in Theatre

TRE-130	Stagecraft	4 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

TRE-145	Acting I	4 credits	TRE-339	Dramatic Literature II	4 credits
TRE-439[‡]	Stage Direction	4 credits	<i>One of the following two courses:</i>		
<i>One of the following two courses:</i>			TRE-245	Fundamentals of Theatrical Design	4 credits
TRE-325[△]	Theatre History I: Greek to Restoration	4 credits	TRE-475	Stage Lighting and Design	4 credits
TRE-330[△]	Theatre History II: 18th Century to Present	4 credits	<hr/>		
<i>One of the following two courses:</i>			Minor in Theatre		
TRE-335	Dramatic Literature I	4 credits	24 credits		

[△] Writing intensive course | [♦] Fulfills General Education requirement | [‡] Honors Major Course | ^Ω 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
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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^A	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
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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
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English with an Emphasis in Professional Writing

ENG-240^{Δf} Writing for the 21st Century Workplace	4 credits
COM-263 Elements of Intercultural Communication	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^f 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
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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. Practicum/field experience hours: 115

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
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Total Practicum/Field Experience	115 hours
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Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

SEC-201 Early Adolescent and Adolescent Psychology	4 credits
ENG-130 Introduction to Young Adult Literature	4 credits

English for Secondary Education Major

ENG-357 Foundational Texts of British Literature	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
POS-301 Arizona and Federal Government	2 credits
EDU-330^Δ Social Justice for Educators	4 credits
ENG-359 Transatlantic Literature	4 credits
ESL-223N SEI English Language Teaching: Foundations and Methodologies	3 credits
SEC-355 Middle and Secondary Curriculum and Assessment	4 credits
ENG-355 Multicultural Literature	4 credits
COM-362 Argumentation and Advocacy	4 credits
ENG-360 American Encounter Narratives	4 credits
ENG-470 Methods for Teaching Writing, Grammar and Linguistics for Secondary Education	4 credits
ENG-451^f Shakespeare and the History of Drama	4 credits
SEC-345 Content Area Literacy for Middle and Secondary Teachers	4 credits
ESL-433N Advanced Methodologies of Structured English Immersion	3 credits
SEC-450 Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
ENG-456^f Communicating Scientific Ideas to Popular Audiences	4 credits
ENG-472 Methods for Teaching Literature for Secondary Education	4 credits
SEC-455 Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
SEC-490^Ω Student Teaching for Secondary Education	8 credits

English for Secondary Education Major	80 credits
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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.

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

*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

Total Bachelor of Arts in Government with an Emphasis in Legal Studies	120 credits
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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^f	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	Government Capstone	4 credits

Government with an Emphasis in Legal Studies Major	44 credits
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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

Total Bachelor of Arts in Government with an Emphasis in State and Local Public Policy	120 credits
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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^f	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	Government Capstone	4 credits

Government with an Emphasis in State and Local Public Policy Major	44 credits
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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 a deep breadth 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. Practicum/field experience hours: 100

Degree Requirements

Total General Education	34-40 credits
Total History for Secondary Education Major	80 credits
Total Electives	0-6 credits

Total Bachelor of Arts in History for Secondary Education	120 credits
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Total Practicum/Field Experience	100 hours
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Required General Education

(Included in General Education totals credits, applied to the Global Awareness competency.)

SEC-201	Early Adolescent and Adolescent Psychology	4 credits
HIS-110	World History Themes	4 credits

History for Secondary Education Major

HIS-144	U.S. History Themes	4 credits
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
HIS-306	Historians in Theory and Practice	4 credits
POS-301	U.S. and Arizona Constitutions	2 credits
EDU-330^A	Social Justice for Educators	4 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits

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

HIS-255^Δ	Historical Research and Applied Methods	4 credits
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
HIS-325	Ancient Mediterranean History	4 credits
HIS-350[‡]	Survey of Asian Empires	4 credits
HIS-450[‡]	U.S. History Since 1945	4 credits
HIS-386	War and Revolution	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
HIS-304	Methods of Teaching History in Secondary Schools	4 credits
HIS-466[‡]	Southwest Borderlands	4 credits
HIS-327	Community History	4 credits
SEC-455	Classroom Engagement and Management 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 with an Emphasis in Public History

Grand Canyon University's Bachelor of Arts in History with an Emphasis in Public History degree program allows students to study the past as a means of understanding the complexity of the world today. The program provides options for students preparing for careers in public history through the study of local and community history, methods of interpreting the past through work in museums, historic preservation, and heritage tourism. Students are also exposed to applied history career opportunities in government, nonprofit, and the private sector.

Degree Requirements

Total General Education	34-40 credits
Total History Major	48 credits
Total Electives	32-38 credits
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Total Bachelor of Arts in History	120 credits

History Major

HIS-110	World History Themes	4 credits
HIS-255^Δ	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-327	Community History	4 credits
HIS-386^Δ	War and Revolution	4 credits
HIS-337	Material Culture and Museums	4 credits
HIS-347	Historic Preservation	4 credits
HIS-450[‡]	U.S. History Since 1945	4 credits
HIS-387	Public History Seminar	4 credits
HIS-466[‡]	Southwest Borderlands	4 credits
HIS-477	Historical Administration	4 credits

History with an Emphasis in Public History Major 48 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
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Total Bachelor of Arts in History	120 credits

History Major

HIS-110	World History Themes	4 credits
HIS-255^Δ	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^Δ	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[‡]	U.S. History Since 1945	4 credits
HIS-466[‡]	Southwest Borderlands	4 credits
HIS-426	20 th Century Europe	4 credits

History Major 48 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 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

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

expertise necessary to become effective and skilled secondary educators. Practicum/field experience hours: 100

Degree Requirements

Total General Education	34-40 credits
Total Mathematics for Secondary Education Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Mathematics for Secondary Education	120 credits
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Total Practicum/Field Experience	100 hours

Required General Education

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

MAT-250	College Algebra and Trigonometry	4 credits
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Mathematics for Secondary Education Major

SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
MAT-252	Calculus and Analytic Geometry I	4 credits
POS-301	U.S. and Arizona Constitutions	2 credits
MAT-253	Calculus and Analytic Geometry II	4 credits
EDU-330^A	Social Justice for Educators	4 credits
MAT-225	Mathematics and Technology through Time	4 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
MAT-274	Probability and Statistics	4 credits
MAT-345	Applied Linear Algebra I	4 credits
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
MAT-312^f	Higher Geometry	4 credits
MAT-215	Discrete Mathematics	4 credits
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
MAT-480	Methods of Teaching Mathematics in Secondary Schools	4 credits
MAT-470^A	Mathematical Modeling	4 credits
MAT-380	Mathematics for the Secondary Educator	4 credits
SEC-490	Student Teaching for Secondary Education Teacher Candidates	8 credits
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Mathematics for Secondary Education Major		80 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
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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^A	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^{Af}	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^f	Introduction to Family Dynamics	4 credits
BHS-440	Understanding Trauma	4 credits
BHS-490^Ω	Professional Capstone Project	4 credits
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Behavioral Health Science Major		48 credits

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

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
Total Electives	24-30 credits
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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^{Δf}	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^f	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
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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
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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^{Δf}	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^f	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
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Behavioral Health Science with an Emphasis in Family Dynamics		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

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

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
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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[†]	Introduction to Family Dynamics	4 credits
BHS-440	Understanding Trauma	4 credits
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
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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
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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

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

Counseling with an Emphasis in Addiction, Chemical Dependency, and Substance Abuse Major	72 credits
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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-110	Crime and Criminology	4 credits
JUS-250^Δ	Critical Issues in Criminal Justice	4 credits
PHI-305	Ethical Thinking in the Liberal Arts	4 credits
JUS-320	The Police Function	4 credits
JUS-325^Δ	The Adjudication Function	4 credits
JUS-330	The Correctional Function	4 credits
JUS-430	Criminal Law	4 credits
JUS-435^Δ	Criminal Procedure	4 credits
JUS-452^Δ	Juvenile Delinquency and Justice	4 credits
SOC-400^Ω	Social Research and Statistics	4 credits
EMM-442	Terrorism's Impact on Emergency Management	4 credits

Justice Studies Major	48 credits
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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
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Total Bachelor of Science in Psychology	120 credits

Psychology Major

PSY-102	General Psychology	4 credits
PSY-255	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^Δ	Abnormal Psychology	4 credits
PSY-495	Professional Capstone Project	4 credits

Psychology Major	48 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
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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[†]	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	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-480^Ω	Sociology and Social Work Capstone	4 credits

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

Sociology Major 48 credits

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 ^f	Marriage and Family	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
SOC-372	Introduction to Social Work	4 credits
SOC-400	Social Research and Statistics	4 credits
SOC-436 ^A	Stratification and Inequality in a Diverse Society	4 credits
SOC-412	Sociology of Religion	4 credits
SOC-386	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

Master of Public Administration with an Emphasis in Government and Policy

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-504 ^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ADM-614	Economics for Public Administrators	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
LDR-630	Servant Leadership	4 credits
ADM-624	Public Governance	4 credits
ADM-626	Public Budgeting and Financial Management	4 credits
ADM-632	Intergovernmental Relations	4 credits
ADM-634	Policy Studies	4 credits
ADM-636	Law and Administrative Process	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-504 ^Ω	Introduction to Graduate Studies in the College of Business	2 credits
MGT-605	Leadership and Organizations	4 credits
ADM-614	Economics for Public Administrators	4 credits
HRM-635	Acquiring, Developing, and Leveraging Human Capital	4 credits
LDR-630	Servant Leadership	4 credits
ADM-624	Public Governance	4 credits
ADM-626	Public Budgeting and Financial Management	4 credits
HCA-515	Analysis of Contemporary Health Care Delivery Models	4 credits
HLT-520	Legal and Ethical Principles in Health Care	4 credits
HCA-530	Health Care Policies and Economics	4 credits

Master of Public Administration with an Emphasis in Health Care 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

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

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

The Master of Science in Christian Counseling program is designed for students interested in becoming professional counselors that 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. Students graduating with a professional counseling degree and who pass

state-mandated testing will be prepared for careers as counselors, behavioral health counselors, or mental health counselors.

Graduates may also be qualified to provide counseling services to clients with substance abuse issues and marital and family issues.

The coursework that prepares students for licensure focuses on a variety of topics, including: counseling orientation and ethics; counseling theories; addictions and substance use disorders; group counseling theory and practice; social and cultural diversity issues in counseling; psychopharmacology and addictions; human sexuality, aging, and long-term care; counseling skills in the helping relationships; human growth and development; marriage and family therapy; spousal and child abuse, crisis, and trauma counseling; tests and appraisal in counseling; career development and counseling; research methods; diagnostics, assessment, and treatment; and psychopathology and counseling. 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 formation, thereby providing 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) and by Arizona Board of Behavioral Health Examiners. A master's degree in counseling is a required step in 50 states including Arizona for individuals seeking to become licensed as counselors.

Graduates from this master's in counseling program are prepared to meet the academic requirements for licensure in Arizona as a: Licensed Associate Counselor (LAC), Licensed Professional Counselor (LPC), Licensed Associate Substance Abuse Counselor (LASAC) or a Licensed Independent Substance Abuse Counselor (LISAC). Additionally, 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 student's 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
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-530	Human Sexuality, Aging, and Long-Term Care	3 credits
PCN-515	Counseling Skills in the Helping Relationships	3 credits

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

PCN-518	Human Growth and Development	3 credits
CCN-655	Biblical Concepts-Healthy Relationships: Forgiveness & Healthy Spirituality	3 credits
PCN-521	Marriage and Family Therapy	3 credits
PCN-545	Spousal and Child Abuse, Crisis, and Trauma Counseling	3 credits
PCN-523	Tests and Appraisal in Counseling	3 credits
CCN-675	Integration of Scripture With Counseling Theory	3 credits
PCN-525	Career Development and Counseling	3 credits
PCN-540	Research Methods	3 credits
PCN-610	Diagnostics, Assessment, and Treatment	3 credits
PCN-605	Psychopathology and Counseling	3 credits
PCN-644	Evaluation of Mental and Emotional Status	2 credits
PCN-622^Ω	Pre-Practicum	2 credits
PCN-662A^Ω	Practicum/Internship I	2 credits
PCN-662B^Ω	Practicum/Internship II	2 credits
PCN-662C^Ω	Practicum/Internship III	2 credits
PCN-662D^Ω	Practicum/Internship IV	2 credits
Master of Science in Christian Counseling		74 credits

Students who are Florida residents must complete the Florida-specific requirements to meet the standards for certification/licensure in that state, students must take the following course in place of PCN-521: Marriage and Therapy:

PCN-643	Counseling in Community Settings	3 credits
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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 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

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

Master of Science in Criminal Justice with an Emphasis in Law Enforcement

The 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. This program also prepares students for work in legal foundations where in-depth issues are contended.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
JUS-505	Critical Issues in Criminal Justice	4 credits
JUS-521	Criminal Investigations	4 credits
JUS-510	Research Methods	4 credits
JUS-610	Forensic Psychology	4 credits
JUS-520	Restorative Justice	4 credits
JUS-515	Organizational Behavior and Leadership in Criminal Justice	4 credits
JUS-620	Exploration of Law and Public Policy	4 credits
JUS-524	Terrorism and Homeland Security	4 credits
JUS-618	Ethics and Liability for Policing and Corrections	4 credits
JUS-652^Ω	Capstone	2 credits
Master of Science in Criminal Justice with an Emphasis in Law Enforcement		40 credits

Master of Science in Criminal Justice with an Emphasis in Legal Studies

The 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 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. This program also prepares students for work in legal foundations where in-depth issues are contended.

Degree Requirements

UNV-503^Ω	Introduction to Graduate Studies in the Liberal Arts	2 credits
JUS-505	Critical Issues in Criminal Justice	4 credits
JUS-531	Constitutional Issues in Criminal Justice	4 credits
JUS-510	Research Methods	4 credits
JUS-610	Forensic Psychology	4 credits
JUS-520	Restorative Justice	4 credits
JUS-515	Organizational Behavior and Leadership in Criminal Justice	4 credits
JUS-620	Exploration of Law and Public Policy	4 credits

JUS-630	International Law	4 credits
JUS-635	Legal Research	4 credits
JUS-652^Ω	Capstone	2 credits
Master of Science in Criminal Justice with an Emphasis in Legal Studies		40 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 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

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

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
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

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

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 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
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 Professional Counseling

The Master of Science in Professional Counseling Degree requires 62 credit hours. 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) and by Arizona Board of Behavioral Health Examiners. A Master's Degree in Counseling is a required step in 50 states including Arizona for individuals seeking to become licensed as counselors. Graduates from this program of study are prepared to meet the academic requirements for licensure in Arizona as a:

- Licensed Associate Counselor (LAC)
- Licensed Professional Counselor (LPC)
- Licensed Associate Substance Abuse Counselor (LASAC)

- Licensed Independent Substance Abuse Counselor (LISAC)
- Additionally, 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-530	Human Sexuality, Aging, and Long-Term Care	3 credits
PCN-515	Counseling Skills in the Helping Relationships	3 credits
PCN-518	Human Growth and Development	3 credits
PCN-521	Marriage and Family Therapy	3 credits
PCN-545	Spousal and Child Abuse, Crisis, and Trauma Counseling	3 credits
PCN-523	Tests and Appraisal in Counseling	3 credits
PCN-525	Career Development and Counseling	3 credits
PCN-540	Research Methods	3 credits
PCN-610	Diagnostics, Assessment, and Treatment	3 credits
PCN-605	Psychopathology and Counseling	3 credits
PCN-644	Evaluation of Mental and Emotional Status	2 credits
PCN-622 ^Ω	Pre-Practicum	2 credits
PCN-662A ^Ω	Practicum/Internship I	2 credits
PCN-662B ^Ω	Practicum/Internship II	2 credits
PCN-662C ^Ω	Practicum/Internship III	2 credits
PCN-662D ^Ω	Practicum/Internship VI	2 credits
Master of Science in Professional Counseling		62 credits

Students who are Florida residents must complete the Florida-specific requirements to meet the standards for certification/licensure in that state, students must take the following course in place of PCN-521: Marriage and Therapy:

PCN-643	Counseling in Community Settings	3 credits
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^Δ Writing intensive course | [◆] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

Master of Science in Professional Counseling with an Emphasis in Childhood and Adolescence Disorders

The Master of Science in Professional 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 meets the academic requirements established by the National Board for Certified Counselors. Students are provided with comprehensive training to achieve national certification and licensure in Arizona as a counselor. Graduates of this degree program may apply for state licensure, after passing the state-mandated testing, and be prepared for careers as counselors, behavioral health counselors, or mental health counselors.

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
PCN-527	Psychopharmacology and Addictions	3 credits
PCN-530	Human Sexuality, Aging, and Long-Term Care	3 credits
PCN-515	Counseling Skills in the Helping Relationships	3 credits
PCN-518	Human Growth and Development	3 credits
PCN-521	Marriage and Family Therapy	3 credits
PCN-545	Spousal and Child Abuse, Crisis, and Trauma Counseling	3 credits
PCN-523	Tests and Appraisal in Counseling	3 credits
PCN-525	Career Development and Counseling	3 credits
PCN-540	Research Methods	3 credits
PCN-610	Diagnostics, Assessment, and Treatment	3 credits
PCN-605	Psychopathology and Counseling	3 credits
PCN-644	Evaluation of Mental and Emotional 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
PCN-622^Ω	Pre-Practicum	2 credits
PCN-662A^Ω	Practicum/Internship I	2 credits
PCN-662B^Ω	Practicum/Internship II	2 credits
PCN-662C^Ω	Practicum/Internship III	2 credits
PCN-662D^Ω	Practicum/Internship VI	2 credits

Master of Science in Professional Counseling with an Emphasis in Childhood and Adolescence Disorders 74 credits

Students who are Florida residents must complete the Florida-specific requirements to meet the standards for certification/licensure in that state, students must take the following course in place of PCN-521: Marriage and Therapy:

PCN-643	Counseling in Community Settings	3 credits
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Master of Science in Professional Counseling with an Emphasis in Marriage and Family Therapy

The Master of Science in Professional 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 meets the academic requirements established by the National Board for Certified Counselors. Students are provided with comprehensive training to achieve national certification and licensure in Arizona as a counselor. Graduates of this degree program may apply for state licensure, after passing the state-mandated testing, and be prepared for careers as counselors, behavioral health counselors, or mental health counselors.

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-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
PCN-527	Psychopharmacology and Addictions	3 credits
PCN-530	Human Sexuality, Aging, and Long-Term Care	3 credits
PCN-515	Counseling Skills in the Helping Relationships	3 credits

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

PCN-518	Human Growth and Development	3 credits
PCN-521	Marriage and Family Therapy	3 credits
PCN-545	Spousal and Child Abuse, Crisis, and Trauma Counseling	3 credits
PCN-523	Tests and Appraisal in Counseling	3 credits
PCN-525	Career Development and Counseling	3 credits
PCN-540	Research Methods	3 credits
PCN-610	Diagnostics, Assessment, and Treatment	3 credits
PCN-605	Psychopathology and Counseling	3 credits
PCN-644	Evaluation of Mental and Emotional 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
PCN-622^Ω	Pre-Practicum	2 credits
PCN-662A^Ω	Practicum/Internship I	2 credits
PCN-662B^Ω	Practicum/Internship II	2 credits
PCN-662C^Ω	Practicum/Internship III	2 credits
PCN-662D^Ω	Practicum/Internship VI	2 credits

Master of Science in Professional Counseling with an Emphasis in Marriage and Family Therapy 74 credits

Students who are Florida residents must complete the Florida-specific requirements to meet the standards for certification/licensure in that state, students must take the following course in place of PCN-521: Marriage and Therapy:

PCN-643	Counseling in Community Settings	3 credits
PCN-643	Counseling in Community Settings	3 credits

Master of Science in Professional Counseling with an Emphasis in Trauma

The Master of Science in Professional Counseling with an Emphasis in Trauma program is designed for students interested in becoming professional counselors. It 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 meets the academic requirements established by the National Board for Certified Counselors. Students are provided with comprehensive training to achieve national certification and licensure in Arizona as a counselor. Graduates of this degree program may apply for state licensure, after passing the state-mandated testing, and be prepared for a career in behavioral health, counseling, health services management, human services, government, and law enforcement.

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
PCN-527	Psychopharmacology and Addictions	3 credits
PCN-530	Human Sexuality, Aging, and Long-Term Care	3 credits
PCN-515	Counseling Skills in the Helping Relationships	3 credits
PCN-518	Human Growth and Development	3 credits
PCN-521	Marriage and Family Therapy	3 credits
PCN-545	Spousal and Child Abuse, Crisis, and Trauma Counseling	3 credits
PCN-523	Tests and Appraisal in Counseling	3 credits
PCN-525	Career Development and Counseling	3 credits
PCN-540	Research Methods	3 credits
PCN-610	Diagnostics, Assessment, and Treatment	3 credits
PCN-605	Psychopathology and Counseling	3 credits
PCN-644	Evaluation of Mental and Emotional 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
PCN-622^Ω	Pre-Practicum	2 credits
PCN-662A^Ω	Practicum/Internship I	2 credits
PCN-662B^Ω	Practicum/Internship II	2 credits
PCN-662C^Ω	Practicum/Internship III	2 credits
PCN-662D^Ω	Practicum/Internship VI	2 credits

Master of Science in Professional Counseling with an Emphasis in Trauma 74 credits

Students who are Florida residents must complete the Florida-specific requirements to meet the standards for certification/licensure in that state, students must take the following course in place of PCN-521: Marriage and Therapy:

PCN-643	Counseling in Community Settings	3 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

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 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

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

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

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

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

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

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 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,

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

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

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

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

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 Communication

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 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 Psychology

Minor Requirements

PSY-102	General Psychology	4 credits
PSY-255	Personality Psychology	4 credits
PSY-352	Health Psychology	4 credits
PSY-362	Social Psychology and Cultural Applications	4 credits
PSY-470	Abnormal Psychology	4 credits
Minor in Psychology		24 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^A	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

^A 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 is dedicated to providing high quality programs with the academic rigor required to prepare health care professionals. The College offers programs that prepare registered professional nurses at both the beginning and advanced levels. The College also offers a nationally certified program in athletic training for students who are committed to caring for athletes at the highest level. For those students interested in becoming leaders in the health care field, the College provides options in the areas of public health, health care administration, and health care informatics.

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/or populations supported by an academically rigorous liberal-arts education reflecting Christian values.

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. 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, cultural background, and other visible or invisible boundaries between students, faculty, and clients.

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 20 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.

Pre-licensure nursing students begin their supervised clinical experiences during the first semester of the nursing curriculum. Students spend up to 18 hours per week in an assigned clinical practice area learning to apply theory in direct patient care situations. Pre-licensure students complete a practicum in nursing as their last course in the curriculum. This practicum course is designed to assist students in role transition and in gaining confidence in their practice.

Grand Canyon University nursing graduates have a record of success on the National Council Licensure Examination – RN. Development of a resume and interview skills are part of senior studies. In today's rapidly changing health care environment, the student will value the opportunity to explore the trends in an individual capstone project.

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 nursing programs prepare graduates to provide excellent, holistic care while encouraging a passion for achievement, a lifelong curiosity for knowledge, and pursuit of advanced professional degrees.

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

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

Competencies in Specialty Areas, NONPF Domains and Competencies of Nurse Practitioner Practice, NACNS Statement on Clinical Nurse Specialist Practice and Education, and the National League for Nursing Competencies for Nurse Educators 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.

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 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.

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

- 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

The Bachelor of Science in Nursing (BSN) Pre-Licensure degree prepares students to function as professionals within the health care team. The program prepares students to provide evidence-based, holistic, safe, quality care for individuals and families in diverse local and global communities. Current standards of nursing practice provide a framework for the entire curriculum. The program emphasizes spirituality, communication, informatics, health promotion, direct care, and disease prevention throughout the life span.

Degree Requirements

Total General Education

40 credits

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

Total Program Prerequisites	24 credits
Total Nursing Pre-Licensure Major	59 credits
Total Bachelor of Science in Nursing (BSN) Pre-Licensure	123 credits

Required General Education

UNV-103^Ω University Success	4 credits
ENG-105^Δ English Composition I	4 credits
MAT-134 Applications of Algebra	4 credits
BIO-201 Human Anatomy and Physiology I	3 credits
BIO-201L Human Anatomy and Physiology I Lab	1 credit
ENG-106 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-303 Therapeutic Communication and Informatics	4 credits
Total Required General Education	40 credits

Program 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-483^f 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-301^f Nursing Foundations	4 credits
NSG-305 Health Assessment	4 credits
NSG-307 Introduction to Pharmacology	4 credits
NSG-321^Ω Nursing Practice: Theory	5 credits
NSG-321C^Ω Nursing Practice: Clinical	5 credits
NSG-323^Ω Psychiatric Mental Health Nursing: Theory	2 credits
NSG-323C^Ω Psychiatric Mental Health Nursing: Clinical	2 credits
NSG-325^Ω Evidence-Based Practice	3 credits
NSG-401^Ω Family-Centered Nursing: Theory	3 credits
NSG-401C^Ω Family-Centered Nursing: Clinical	3 credits
NSG-403^Ω Community Nursing: Theory	3 credits
NSG-403C^Ω Community Nursing: Clinical	3 credits
HLT-411 Global Health Issues	4 credits

NSG-421^Ω Transition to Professional Nursing Practice: Theory	6 credits
NSG-421C^Ω Transition to Professional Nursing Practice: Clinical	6 credits
NSG-423^Ω Evidence-Based Capstone Project	2 credits
Bachelor of Science in Nursing Pre-Licensure Major	59 credits

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 lifespan, which provides students the opportunity to achieve baccalaureate competencies.

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

Students who are Minnesota residents must complete the Minnesota-specific General Education requirements.

Total Registered Nurse to Bachelor of Science in Nursing (RN-BSN)	120 credits
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Registered Nurse to Bachelor of Science in Nursing (RN-BSN) Major

NRS-430V^Ω Professional Dynamics	3 credits
NRS-429V Family-Centered Health Promotion	3 credits
NRS-434V Health Assessment	3 credits
NRS-427V 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

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

NRS-437V	Ethical Decision Making in Health Care	3 credits
HLT-310V^Δ	Spirituality in Health Care	3 credits
NRS-451V	Nursing Leadership and Management	3 credits
NRS-410V	Pathophysiology and Nursing Management of Clients' Health	3 credits
NRS-440V	Trends and Issues in Health Care	3 credits
NRS-441V^{ΔΩ}	Professional Capstone Project	3 credits
RN to BSN Major		36 credits

Bachelor of Science in Nursing (RN-BSN) Effective January 2016

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.

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

Students who are Minnesota residents must complete the Minnesota-specific General Education requirements.

Total Registered Nurse to Bachelor of Science in Nursing (RN-BSN)	120 credits
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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-427VN	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-490	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-434V	Health Assessment	3 credits
HLT-362V	Applied Statistics for Health Care Professionals	3 credits
NRS-433V^Δ	Introduction to Nursing Research	3 credits
NRS-427V	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
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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 (ACNP-AG) from the American Nurses Credentialing Center (ANCC) or the American Association of Critical Care Nurses (AACN). The program combines courses in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of adult and geriatric acute care patients, sub-acute patients, and/or patients with exacerbations of chronic illness. Clinical experiences emphasize

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

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. The 53-credit hour program includes 550 hours of directly supervised clinical practice with qualified preceptors. A post-master's certificate program is available to those nurses who already have a Master of Science in Nursing degree.

Degree Requirements

NUR-502^Ω	Theoretical Foundations for Nursing Roles and Practice	4 credits
NUR-504	Health Care Research Analysis and Utilization	4 credits
NUR-508	Ethics, Policy, and Finance in the Health Care System	4 credits
NUR-658	Scope of Practice, Documentation, and Billing	2 credits
NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-633	Advanced Pharmacology for Acute Care	4 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits
NUR-636^Ω	ACNP-AG Didactic I	3 credits
NUR-636C^Ω	ACNP-AG Practicum I	4 credits
NUR-637^Ω	ACNP-AG Didactic II	4 credits
NUR-637C^Ω	ACNP-AG Practicum II	4 credits
NUR-638^Ω	ACNP-AG Didactic III	4 credits
NUR-638C^Ω	ACNP-AG Practicum III	4 credits
NUR-699^Ω	Evidence-Based Practice Project	4 credits
Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology		53 credits
Total Clinical Hours		550 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 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.

A post-master's certificate program is available to those nurses who already have a Master of Science in Nursing degree.

Degree Requirements

NUR-502^Ω	Theoretical Foundations for Nursing Roles and Practice	4 credits
NUR-504	Health Care Research Analysis and Utilization	4 credits
NUR-508	Ethics, Policy, and Finance in the Health Care System	4 credits
NUR-654	Diverse Application of Advanced Practice Concepts	3 credits
NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-632	Advanced Pharmacology for Primary Care	4 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits
NUR-675^Ω	Advanced Practice Management of Adult Health Care Problems in Primary Care	3 credits
NUR-675C^Ω	Advanced Practice Management of Adult Health Care Problems in Primary Care Clinical	3 credits
NUR-668^Ω	Advanced Practice Management of Pediatric and Adolescent Health Care Problems in Primary Care	3 credits
NUR-668C^Ω	Advanced Practice Management of Pediatric and Adolescent Health Care Problems in Primary Care Clinical	3 credits
NUR-667^Ω	Advanced Practice Management of Women's Health Care Issues in Primary Care	1.5 credits
NUR-667C^Ω	Advanced Practice Management of Women's Health Care Issues in Primary Care Clinical	1.5 credits
NUR-669^Ω	Advance Practice Management of Geriatric Issues in Primary Care	1.5 credits
NUR-669C^Ω	Advance Practice Management of Geriatric Issues in Primary Care Clinical	1.5 credits
NUR-682C^Ω	Advanced Practice Clinical Practicum	4 credits
NUR-699^Ω	Evidence-Based Practice Project	4 credits
Master of Science in Nursing: Family Nurse Practitioner		53 credits
Total Clinical Hours		650 hours

Master of Science in Nursing with an Emphasis 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 to health care, 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.

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

Graduates of the Master of Science in Nursing with an Emphasis in Health Care Informatics program 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, doctor's offices, insurance companies, pharmacies, technology suppliers, consulting firms, and more. 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 & Medicaid Services, state health care organizations, and informational technology vendors.

Degree Requirements

NUR-502^Ω	Theoretical Foundations for Nursing Roles and Practice	4 credits
NUR-504	Health Care Research Analysis and Utilization	4 credits
NUR-508	Ethics, Policy, and Finance in the Health Care System	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-620	Business/Project Plan Evaluation and Development	4 credits
HCA-675	Health Care Innovation	4 credits
NUR-699^Ω	Evidence-Based Research Project	4 credits
Master of Science in Nursing with an Emphasis in Health Care Informatics		36 credits

Master of Science in Nursing with an Emphasis in Nursing Education

The Master of Science in Nursing with an Emphasis in Nursing Education program provides an educational experience to prepare advanced-professional nurses to address the ever changing and expanding educational needs of the nursing profession. The track 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 of this track will be prepared for a variety of roles in nursing education, either as clinical educators or academic educators in both traditional and nontraditional settings in nursing education. A post-master's certificate program is available to those nurses who already have a Master of Science in Nursing degree.

Degree Requirements

NUR-502^Ω	Theoretical Foundations for Nursing Roles and Practice	4 credits
NUR-504	Health Care Research Analysis and Utilization	4 credits
NUR-508	Ethics, Policy, and Finance in the Health Care System	4 credits
NUR-641E	Advanced Pathophysiology and Pharmacology for Nurse Educators	4 credits

NUR-645E	Advanced Health Assessment for Nurse Educators	4 credits
NUR-647E	Nursing Education Seminar I	4 credits
NUR-649E	Nursing Education Seminar II	4 credits
NUR-665E^Ω	Nursing Education Practicum	4 credits
NUR-699^Ω	Evidence-Based Practice Project	4 credits
Master of Science in Nursing with an Emphasis in Nursing Education		36 credits

Master of Science in Nursing with an Emphasis in Nursing Leadership in Health Care Systems

The Nursing Leadership in Health Care Systems program prepares nurses for leadership roles in today's rapidly changing health care delivery systems. The program consists of graduate nursing core courses and leadership courses taken with the Master of Science Leadership (MSL) program. From the graduate nursing core courses, students gain the knowledge, values, and skills needed for advanced generalist practice in an evolving health care system. The coursework in leadership provides an overview of leadership styles and the functioning of organizations with an emphasis on communication skills required to establish and maintain effective relationships.

Degree Requirements

NUR-502^Ω	Theoretical Foundations for Nursing Roles and Practice	4 credits
NUR-504	Health Care Research Analysis and Utilization	4 credits
NUR-508	Ethics, Policy, and Finance in the Health Care System	4 credits
LDR-600	Leadership Styles and Development	4 credits
LDR-615	Organizational Development and Change	4 credits
LDR-620	Leading as a General Manager	4 credits
LDR-630	Servant Leadership	4 credits
NUR-670^Ω	Leadership in Health Care Organizations Practicum	4 credits
NUR-699^Ω	Evidence-Based Practice Project	4 credits
Master of Science in Nursing with an Emphasis in Nursing Leadership in Health Care Systems		36 credits

Master of Science in Nursing with an Emphasis in Public Health

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 our 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 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 program can be actively involved in the coordination, planning, development, implementation, and evaluation of health programs and services.

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

The Master of Science in Nursing with an Emphasis in Public Health program is designed for nurses interested in disease prevention and community health. Public health professionals 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 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. The Master of Science in Nursing with an Emphasis in Public Health program culminates with a practicum and capstone project that students are able to design to best fit their area of specific interest.

Degree Requirements

NUR-502^Ω	Theoretical Foundations for Nursing Roles and Practice	4 credits
NUR-504	Health Care Research Analysis and Utilization	4 credits
NUR-508	Ethics, Policy, and Finance in the Health Care System	4 credits
BIO-500	Biostatistics	4 credits
BIO-550	Epidemiology	4 credits
HLT-555	Environmental Health	4 credits
HLT-515	Social, Behavioral, and Cultural Factors in Public Health	4 credits
HLT-605	Public Health Administration	4 credits
HLT-665^Ω	Public Health Practicum	4 credits
NUR-699^Ω	Evidence-Based Practice Project	4 credits
Master of Science in Nursing with an Emphasis in Public Health		40 credits
Total Clinical/Practicum Hours		150 hours

Master of Business Administration and Master of Science in Nursing with an Emphasis in 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 with an Emphasis in Nursing Leadership in Health Care Systems Dual-Degree](#).

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. The program combines courses in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of adult and geriatric acute care patients, sub-acute 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. The 37-credit hour program includes 550 hours of directly supervised clinical practice with qualified preceptors.

Degree Requirements

NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-633	Advanced Pharmacology for Acute Care	4 credits
NUR-658	Scope of Practice, Documentation, and Billing	2 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits
NUR-636^Ω	ACNP-AG Didactic I	3 credits
NUR-636C^Ω	ACNP-AG Practicum I	4 credits
NUR-637^Ω	ACNP-AG Didactic II	4 credits
NUR-637C^Ω	ACNP-AG Practicum II	4 credits
NUR-638^Ω	ACNP-AG Didactic III	4 credits
NUR-638C^Ω	ACNP-AG Practicum III	4 credits
Post-Master of Science in Nursing: Acute Care Nurse Practitioner with an Emphasis in Adult-Gerontology Certificate		37 credits
Total Clinical Hours		550 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, diagnosis 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. Note: Certain courses may be waived for the Post-Master of Science in Nursing: Family Nurse Practitioner Certificate program if they have been taken previously.

Degree Requirements

NUR-631	Advanced Physiology and Pathophysiology	4 credits
NUR-632	Advanced Pharmacology for Primary Care	4 credits
NUR-654	Diverse Application of Advanced Practice Concepts	3 credits
NUR-634	Advanced Health Assessment and Diagnostic Reasoning With Skills Lab	4 credits

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

NUR-675^Ω	Advanced Practice Management of Adult Health Care Problems in Primary Care	3 credits
NUR-675C^Ω	Advanced Practice Management of Adult Health Care Problems in Primary Care Clinical	3 credits
NUR-668^Ω	Advanced Practice Management of Pediatric and Adolescent Health Care Problems in Primary Care	3 credits
NUR-668C^Ω	Advanced Practice Management of Pediatric and Adolescent Health Care Problems in Primary Care Clinical	3 credits
NUR-667^Ω	Advanced Practice Management of Women's Health Care Issues in Primary Care	1.5 credits
NUR-667C^Ω	Advanced Practice Management of Women's Health Care Issues in Primary Care Clinical	1.5 credits
NUR-669^Ω	Advanced Practice Management of Geriatric Issues in Primary Care	1.5 credits
NUR-669C^Ω	Advanced Practice Management of Geriatric Issues in Primary Care Clinical	1.5 credits
NUR-682C^Ω	Advanced Practice Clinical Practicum	4 credits
Post-Master of Science in Nursing: Family Nurse Practitioner Certificate		37 credits
Total Clinical Hours		650 hours

Post-Master of Science in Nursing: Nursing Education Certificate

The Post-Master of Science in Nursing: Nursing Education (MS-NEd) Certificate prepares advanced professional nurses in the nursing role specialty of nursing education. The NEd track addresses the expanding educational needs of the nursing profession. The Nurse Educator may practice in a variety of settings. The Nurse Educator will be prepared to practice in acute or chronic care settings as a staff-educator or in a role that is 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 utilizing assessing educational needs, planning programs to meet those needs, and evaluating the outcomes of their programs. This is accomplished in the context of an evidence-based practice model.

Degree Requirements

NUR-641E	Advanced Pathophysiology and Pharmacology for Nurse Educators	4 credits
NUR-645E	Advanced Health Assessment for Nurse Educators	4 credits
NUR-647E	Nursing Education Seminar I	4 credits
NUR-649E	Nursing Education Seminar II	4 credits
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	Health Care Informatics	3 credits
DNP-810	Emerging Areas of Human Health	3 credits
DNP-815	Scientific Underpinnings	3 credits
DNP-820	Translational Research and Evidence-Based Practice	3 credits
DNP-825	Population Management	3 credits
DNP-830	Data Analysis	3 credits
DNP-835	Patient Outcomes and Sustainable Change	3 credits
DNP-840	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

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, health care professionals who collaborate with physicians to optimize activity and participation of patients and clients. 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 curriculum. 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 (ATC) 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. The education requires that 750 hours of clinical rotations on-

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

and off-campus 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
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Total Bachelor of Science in Athletic Training	120 credits

Athletic Training Preclinical Coursework

BIO-155	Introduction to Anatomy and Physiology	3 credits
BIO-155L	Introduction to Anatomy and Physiology Lab	1 credit
EXS-214^Ω	Care, Treatment, and Prevention of Athletic Injuries	3 credits
EXS-214L^Ω	Care, Treatment, and Prevention of Athletic Injuries Lab	1 credit
BIO-253^Ω	Emergency Care for Acute Injuries and Illnesses	4 credits

Athletic Training Major

EXS-322^Ω	Clinical Instruction: Emergency, Taping, Bracing	4 credits
EXS-356^Ω	Recognition and Evaluation of Athletic Injuries I	4 credits
EXS-340^f	Physiology of Exercise	3 credits
EXS-340L^f	Physiology of Exercise Lab	1 credit
BIO-356^Ω	Health Promotion and Wellness Protection	4 credits
EXS-352^Ω	Clinical Instruction: Health and Wellness Plans	4 credits
EXS-357^Ω	Recognition and Evaluation of Athletic Injuries II	4 credits
EXS-335	Kinesiology	3 credits
EXS-335L	Kinesiology Lab	1 credit
EXS-354^Ω	Clinical Instruction: Evaluation Techniques	4 credits
EXS-387^Ω	Therapeutic Modalities	3 credits
EXS-387L^Ω	Therapeutic Modalities Lab	1 credit
EXS-426^{Ωf}	Theory of Prescribing Exercise	3 credits
EXS-426L^{Ωf}	Theory of Prescribing Exercise Lab	1 credit
EXS-355^Ω	Clinical Instruction: Rehabilitation Plans	4 credits
EXS-420^Ω	Management in Athletic Training, Health, and Athletics	4 credits
EXS-366^Ω	General Medical Conditions	4 credits
EXS-358^Ω	Clinical Instruction: General Medical Conditions	4 credits
EXS-458	Theory and Practice of Strength and Conditioning	4 credits
EXS-370^Ω	Pharmacology: Drug Use and Abuse	4 credits
EXS-415^{ΩA}	Advanced Athletic Training	4 credits
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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
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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
HLT-302^A	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

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

HCA-455^f	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^{ΔA}	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 Sciences: 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 Sciences: 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 Sciences: 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

Professional Development and Advanced Patient Care Major	36 credits
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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.

Health Care Professions: Graduate Programs

Master of Public Health

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 our nation's health, and expansion of health issues that are global in scope. Professionals with the Master of Public Health (MPH) degree 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. Individuals with an MPH degree are often actively involved in the coordination, planning, development, implementation, and evaluation of health programs and services.

The MPH program is designed for people interested in disease prevention and community health, and is the most widely recognized professional credential for leadership positions in public health. Public health professionals 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 MPH program culminates with a practicum and capstone project that students are able to design to best fit their area of specific interest.

Degree Requirements

UNV-506^Ω	Introduction to Graduate Studies in the Health Care Professions	2 credits
HLT-515	Social, Behavioral, and Cultural Factors in Public Health	4 credits
BIO-500	Biostatistics	4 credits
HLT-540	Health Care Research Methods, Analysis, and Utilization	4 credits
HLT-555	Environmental Health	4 credits
BIO-550	Epidemiology	4 credits
HLT-600	Public Health Policy	4 credits
HLT-605	Public Health Administration	4 credits
HLT-610	Networking and Professional Readiness	2 credits

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

HCA-620	Business/Project Plan Evaluation and Development	4 credits
HLT-665^Ω	Public Health Practicum	4 credits
HCA-675	Health Care Innovation	4 credits
HCA-699^Ω	Evidence-Based Research Project	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

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
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
HCA-545	Organizational Structure, Dynamics, and Effectiveness	4 credits
HCA-615	Human Resource Management and Marketing Communication Strategies	4 credits
LDR-600	Leadership Styles and Development	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 Administration		48 credits

Students who have taken courses with equivalent content at the undergraduate level may waive one or more of these MSHCA Foundational courses in the program of study (HCA-515, HLT-520, and HCA-530) upon evaluation of their official transcripts.

Only courses with equivalent content and grades earned of B- or better will be accepted to waive the MSHCA Foundational courses.

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

UNV-504^Ω	Introduction to Graduate Studies in the College of Business	2 credits
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

Students who have taken courses with equivalent content at the undergraduate level may waive one or more of the MHCI foundational courses (HLT-520, HCA-515, and HCA-530) in the program of study upon evaluation of their official transcripts. Only courses with equivalent content and grades earned of B- or better will be accepted to waive the MHCI foundational courses.

^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 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
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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	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 ^Δ	Christianity in a Global Context	4 credits
BIB-360	Gospels and Acts	4 credits
MIN-430 ^Δ	Ministerial Communication	4 credits
HTH-350	Survey of Historical Theology	4 credits

HTH-330	Christian Ethics	4 credits
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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	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 [†]	Ministerial Communication	4 credits
HTH-350	Survey of Historical Theology	4 credits
HTH-330	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 and Emphasis in Biblical Studies Major		64 credits

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	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 ^Δ	Christianity in a Global Context	4 credits
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	Christian Ethics	4 credits
INT-460	Christianity and Culture	4 credits

Christian Studies with and Emphasis in Global Ministry Major		64 credits
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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
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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
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | [†] Honors Major Course | ^Ω Non-Transferable

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	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	Christian Ethics	4 credits
PHI-403	Philosophy of Religion	4 credits
Christian Studies with an 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 Youth Ministry Major	64 credits
Total Electives	16-22 credits
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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
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BIB-107	New Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
BIB-355	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 ^Δ	Christianity in a Global Context	4 credits
BIB-360	Gospels and Acts	4 credits
MIN-430 [†]	Ministerial Communication	4 credits
HTH-350	Survey of Historical Theology	4 credits
HTH-330	Christian Ethics	4 credits
WSA-322	Theology of Worship	4 credits
WSA-321	Psalms, Hymns, and Spiritual Songs	4 credits
WSA-423	Worship Leadership	4 credits
WSA-424	Christian Worldview and Media	4 credits
Christian Studies with an Emphasis in Youth Ministry 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

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

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 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 ^Δ Christianity in a Global Context	4 credits
BIB-360 Gospels and Acts	4 credits
MIN-430 [†] Ministerial Communication	4 credits
HTH-350 Survey of Historical Theology	4 credits
HTH-330 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 Digital Media

Graduates of the Bachelor of Arts in Worship Arts with an Emphasis in Digital Media program are prepared for careers in visual media aspects of worship ministry, including videographer, audio mixer, motion graphics artist, and video editor. The program is designed to equip students with the technical and visual storytelling skills necessary to produce high-

quality video, graphics, and audio for short- or long-format video productions. Coursework emphasizes building purpose and meaning through related visual imagery and sound. This includes lighting, audio, editing, and camera techniques for video using various technical platforms and concepts.

Degree Requirements

Total General Education	34-40 credits
Total Worship Arts with an Emphasis in Digital Media Major	80 credits
Total Electives	0-6 credits
Total Bachelor of Arts in Worship Arts with an Emphasis in Digital Media	120 credits

Worship Arts with an Emphasis in Digital Media Major

WSA-121 Survey of Media and Production for Contemporary Worship	4 credits
BIB-106 Old Testament Survey	4 credits
WSA-161 Worship Summit I	0 credits
WSA-122 Music in Contemporary Worship	4 credits
WSA-222 Introduction to Worship Arts Management	4 credits
BIB-107 New Testament Survey	4 credits
HTH-201 Christian Theology I	4 credits
WSA-223 Principles of Worship Arts Entrepreneurship	4 credits
WSA-251 Digital Film Production and Editing	4 credits
WSA-261 Worship Summit II	0 credits
HTH-202 Christian Theology II	4 credits
WSA-321 [†] Psalms, Hymns, and Spiritual Songs	4 credits
WSA-252 Media Lighting and Design	4 credits
WSA-353 Media Sound Recording and Mixing	4 credits
WSA-322 Theology of Worship	4 credits
WSA-354 Motion Graphics	4 credits
WSA-361 Worship Arts Project I	1 credit
WSA-423 [‡] Worship Leadership	4 credits
WSA-455 Website Creation and Administration	4 credits
WSA-424 Christian Worldview and Media	4 credits
WSA-456 Digital Media Production Capstone	4 credits
WSA-461 ^Ω Worship Arts Project II	1 credit
WSA-459 ^Ω Worship Media Internship	6 credits
Bachelor of Arts in Worship Arts with an Emphasis in Digital Media Major	80 credits

Bachelor of Arts in Worship Arts with an Emphasis in Worship Management

Graduates of the Bachelor of Arts in Worship Arts with an Emphasis in Worship Management program are prepared for careers in planning, organizing, marketing, and managing worship ministry for both large and small ministries, and managing touring operations for Christian music artists. This program of study is designed to equip students with competencies

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

necessary for project management, business planning, budget development and control, talent management, and event promotion. Coursework emphasizes entrepreneurship, with a focus on critical business skills including managerial accounting, contract law, human resource and project management, and marketing (with an emphasis on advertising and promotion). The business curriculum is built on a framework of Christian ethics.

Degree Requirements

Total General Education	34-40 credits
Total Worship Arts with an Emphasis in Worship Management Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Worship Arts with an Emphasis in Worship Management	120 credits

Worship Arts with an Emphasis in Worship Management Major

WSA-121	Survey of Media and Production for Contemporary Worship	4 credits
BIB-106	Old Testament Survey	4 credits
WSA-161	Worship Summit I	0 credits
WSA-122	Music in Contemporary Worship	4 credits
WSA-222	Introduction to Worship Arts Management	4 credits
BIB-107	New Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
WSA-223	Principles of Worship Arts Entrepreneurship	4 credits
WSA-261	Worship Summit II	0 credits
HTH-202	Christian Theology II	4 credits
WSA-321^f	Psalms, Hymns, and Spiritual Songs	4 credits
MKT-245	Principles of Marketing	4 credits
WSA-373	Worship Arts Accounting and Finance	4 credits
MGT-240	Introduction to Management	4 credits
WSA-322^f	Theology of Worship	4 credits
WSA-374	Advertising and Promotion in Worship Arts	4 credits
WSA-361	Worship Arts Project I	1 credit
WSA-423	Worship Leadership	4 credits
WSA-475	Business Law in the Worship Arts Industry	4 credits
WSA-424	Christian Worldview and Media	4 credits
WSA-476	Human Resources and the Worship Arts	4 credits
WSA-461^Ω	Worship Arts Project II	1 credit
WSA-479^Ω	Worship Arts Management Internship	6 credits
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Bachelor of Arts in Worship Arts with an Emphasis in Worship Management Major	80 credits	

Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry

Graduates of the Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry program are prepared for careers

in local worship ministry. Coursework emphasizes music 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 the program. A capstone internship provides students 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	80 credits
Total Electives	0-6 credits
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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-110^Ω	Songwriting and Arranging I	1 credit
<i>One of the following four courses:</i>		
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
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WSA-161	Worship Summit I	0 credits
WSA-311	Worship Ensemble	0 credits
WSA-122	Music in Contemporary Worship	4 credits
WSA-315	Fundamentals of Music Theory for Contemporary Worship II	2 credits
BIB-107	New Testament Survey	4 credits
WSA-210^Ω	Songwriting and Arranging II	1 credits
<i>One of the following four courses:</i>		
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
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HTH-201	Christian Theology I	4 credits
WSA-223	Principles of Worship Arts Entrepreneurship	4 credits
WSA-310^Ω	Songwriting and Arranging III	1 credit
<i>One of the following four courses:</i>		
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

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

WSA-261	Worship Summit II	0 credits
HTH-202	Christian Theology II	4 credits
WSA-321^f	Psalms, Hymns, and Spiritual Songs	4 credits
WSA-222	Introduction to Worship Arts Management	4 credits
WSA-121	Survey of Media and Production for Contemporary Worship	4 credits
WSA-410^Ω	Songwriting and Arranging IV	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-415	Sound Recording and Reinforcement	4 credits
WSA-322^f	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-361	Worship Arts Project I	1 credit
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

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-424	Christian Worldview and Media	4 credits
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WSA-416	Music Direction for Contemporary Worship	2 credits
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One of the following four courses:

WKA-411	Private Keyboard Study VII	1 credit
WGA-411	Private Guitar Study VII	1 credit
WPA-411	Private Percussion Study VII	1 credit
WVA-411	Private Voice Study VII	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-461^Ω	Worship Arts Project II	1 credit
WSA-419^Ω	Worship Ministry Internship	6 credits

Bachelor of Arts in Worship Arts with an Emphasis in Worship Ministry Major		80 credits
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Bachelor of Arts in Worship Arts with an Emphasis in Worship Production

Graduates of the Bachelor of Arts in Worship Arts with an Emphasis in Worship Production program are prepared for careers in the production aspects of worship ministry, including lighting, production design, sound recording and live mixing for concerts, technical direction, and lighting direction. This program of study is designed to equip students with the skills and knowledge necessary for a career in worship arts production. Coursework emphasizes contemporary worship lighting on numerous platforms, scenic design and technical direction, OSHA regulations regarding safety, and practical sound recording and reinforcement techniques.

Degree Requirements

Total General Education	34-40 credits
Total Worship Arts with an Emphasis in Worship Production Major	80 credits
Total Electives	0-6 credits
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Total Bachelor of Arts in Worship Arts with an Emphasis in Worship Production	120 credits

Worship Arts with an Emphasis in Worship Production Major

WSA-121	Survey of Media and Production for Contemporary Worship	4 credits
BIB-106	Old Testament Survey	4 credits
WSA-161	Worship Summit I	0 credits
WSA-122	Music in Contemporary Worship	4 credits
WSA-222	Introduction to Worship Arts Management	4 credits
BIB-107	New Testament Survey	4 credits
HTH-201	Christian Theology I	4 credits
WSA-223	Principles of Worship Arts Entrepreneurship	4 credits

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

WSA-231	Lighting for Contemporary Worship I	4 credits
WSA-261	Worship Summit II	0 credits
HTH-202	Christian Theology II	4 credits
WSA-321^f	Psalms, Hymns, and Spiritual Songs	4 credits
WSA-232	Lighting for Contemporary Worship II	4 credits
WSA-333	Stage Design for Contemporary Worship	4 credits
WSA-415	Sound Recording and Reinforcement	4 credits
WSA-322^f	Theology of Worship	4 credits
WSA-361	Worship Arts Project I	1 credit
WSA-423	Worship Leadership	4 credits
WSA-435	Touring and Permanent Installation	4 credits
WSA-424	Christian Worldview and Media	4 credits
WSA-436	Worship Production Technology	4 credits
WSA-461^Ω	Worship Arts Project II	1 credit
WSA-439^Ω	Worship Production Internship	6 credits
Bachelor of Arts in Worship Arts with an Emphasis in Worship Production Major		80 credits

Christian Studies: Graduate Programs

Master of Arts in Christian Studies with an Emphasis in Christian Leadership

The Master of Arts in Christian Studies with an Emphasis in Christian Leadership is a program designed for individuals who desire to lead as Christians in their arenas of influence, be they secular, religious, professional, or personal. The program focuses on the preparation of leaders in biblical and theological knowledge, practical application of that knowledge in leadership settings, and the development of character and integrity in all aspects of life. Emphases include urban ministry, youth ministry, Christian leadership, and pastoral ministry.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-505	Spiritual Formation and Mentoring	4 credits
CHL-520	Theories of Leadership	4 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
HTH-655	Christian Worldview and Contextualization	4 credits
BIB-650	Biblical Hermeneutics	4 credits
CHL-650	Leading Through Crisis, Conflict, and Change	4 credits
Master of Arts in Christian Studies with an Emphasis in Christian Leadership		38 credits

Master of Arts in Christian Studies with an Emphasis in Pastoral Ministry

The Master of Arts in Christian Studies with an Emphasis in Pastoral Ministry is a program designed for individuals who desire to lead as Christians in their arenas of influence, be they secular, religious, professional, or personal. The program focuses on the preparation of leaders in biblical and theological knowledge, practical application of that knowledge in leadership settings, and the development of character and integrity in all aspects of life. Emphases include urban ministry, youth ministry, Christian leadership, and pastoral ministry.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-505	Spiritual Formation and Mentoring	4 credits
MIN-520	The Work of the Pastor	4 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
HTH-655	Christian Worldview and Contextualization	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-670	Homiletics	4 credits

Master of Arts in Christian Studies with an Emphasis in Pastoral Ministry 38 credits

Master of Arts in Christian Studies with an Emphasis in Urban Ministry

The Master of Arts in Christian Studies with an Emphasis in Urban Ministry is a program designed for individuals who desire to lead as Christians in their arenas of influence, be they secular, religious, professional, or personal. The program focuses on the preparation of leaders in biblical and theological knowledge, practical application of that knowledge in leadership settings, and the development of character and integrity in all aspects of life. Emphases include urban ministry, youth ministry, Christian leadership, and pastoral ministry.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-505	Spiritual Formation and Mentoring	4 credits
INT-520	Cross-Cultural and Multicultural Ministry	4 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
HTH-655	Christian Worldview and Contextualization	4 credits
BIB-650	Biblical Hermeneutics	4 credits
INT-630	Issues in Urban Ministry	4 credits

Master of Arts in Christian Studies with an Emphasis in Urban Ministry 38 credits

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

Master of Arts in Christian Studies with an Emphasis in Youth Ministry

The Master of Arts in Christian Studies with an Emphasis in Youth Ministry is a program designed for individuals who desire to lead as Christians in their arenas of influence, be they secular, religious, professional, or personal. The program focuses on the preparation of leaders in biblical and theological knowledge, practical application of that knowledge in leadership settings, and the development of character and integrity in all aspects of life. Emphases include urban ministry, youth ministry, Christian leadership, and pastoral ministry.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-505	Spiritual Formation and Mentoring	4 credits
MIN-530	Youth Issues and Crises	4 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
HTH-655	Christian Worldview and Contextualization	4 credits
BIB-650	Biblical Hermeneutics	4 credits
MIN-630	Mentoring and Counseling Youth	4 credits
Master of Arts in Christian Studies with an Emphasis in Youth 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 of God 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-510	Christian Character Formation	4 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits

MIN-525	Evangelism and Discipleship	4 credits
HEB-501	Elementary Hebrew I	4 credits
BIB-611	Old Testament Exegesis: Pentateuch	4 credits
INT-525	Christian Worldview and Mission	4 credits
HTH-510	Christian History	4 credits
GRK-501	Elementary Greek I	4 credits
BIB-620	New Testament Exegesis: Gospels and Acts	4 credits
HTH-511	Christian History II	4 credits
WOR-601	Theology of Worship	4 credits
MIN-601^Ω	Christ-Centered Preaching	4 credits
HTH-610	Christian Ethics	4 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
BIB-610	Old Testament Exegesis: Prophets and Writings	4 credits
INT-675	Global Christianity	4 credits
HTH-611^Ω	Pastoral Theology	4 credits
BIB-621	New Testament Exegesis: Epistles and Revelation	4 credits
INT-535	The Christian Faith and World Religions	4 credits
PHI-610	Christian Apologetics	4 credits

Master of Divinity 90

Students who have completed a graduate or baccalaureate degree in Christian Studies, Biblical Studies, Theological Studies, Christian Ministry, or some other GCU-approved, theologically based program are able to waive the Master of Divinity fundamental courses: BIB-501, BIB-502 and MIN-510.

Master of Divinity with an Emphasis in Global Ministry

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.

Students who wish to specialize in Global Ministry are prepared for cross-cultural ministry in a variety of national and international contexts. This program of study is designed to equip students with competencies necessary for service as effective missions leaders in churches and missions agencies in North American and international settings. Coursework for this emphasis introduces students to cross-cultural studies and equips them with skills required for a contextualized gospel ministry.

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

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-510	Christian Character Formation	4 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
INT-545	Anthropological Principles	4 credits
HEB-501	Elementary Hebrew I	4 credits
BIB-611	Old Testament Exegesis: Pentateuch	4 credits
INT-525	Christian Worldview and Mission	4 credits
HTH-510	Christian History	4 credits
GRK-501	Elementary Greek I	4 credits
BIB-620	New Testament Exegesis: Gospels and Acts	4 credits
HTH-511	Christian History II	4 credits
INT-655	Contextualized Church Planting	4 credits
MIN-601^Ω	Christ-Centered Preaching	4 credits
HTH-610	Christian Ethics	4 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
BIB-610	Old Testament Exegesis: Prophets and Writings	4 credits
INT-675	Global Christianity	4 credits
HTH-611^Ω	Pastoral Theology	4 credits
BIB-621	New Testament Exegesis: Epistles and Revelation	4 credits
INT-535	The Christian Faith and World Religions	4 credits
PHI-610	Christian Apologetics	4 credits

Master of Divinity 90

Students who have completed a graduate or baccalaureate degree in Christian Studies, Biblical Studies, Theological Studies, Christian Ministry, or some other GCU-approved, theologically based program are able to waive the Master of Divinity fundamental courses: BIB-501, BIB-502 and MIN-510.

Master of Divinity with an Emphasis in Worship Leadership

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.

Students who wish to specialize in Worship Leadership are prepared for careers in 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. Coursework emphasizes a biblical theology of worship while developing character, knowledge, and ministerial skills necessary for faithful worship leadership.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
MIN-510	Christian Character Formation	4 credits
BIB-501	Old Testament Foundations	4 credits
BIB-502	New Testament Foundations	4 credits
WOR-510	Biblical Worship	4 credits
HEB-501	Elementary Hebrew I	4 credits
BIB-611	Old Testament Exegesis: Pentateuch	4 credits
INT-525	Christian Worldview and Mission	4 credits
HTH-510	Christian History	4 credits
GRK-501	Elementary Greek I	4 credits
BIB-620	New Testament Exegesis: Gospels and Acts	4 credits
HTH-511	Christian History II	4 credits
WOR-601	Theology of Worship	4 credits
MIN-601^Ω	Christ-Centered Preaching	4 credits
HTH-610	Christian Ethics	4 credits
HTH-505	Systematic Theology I	4 credits
HTH-550	Systematic Theology II	4 credits
BIB-610	Old Testament Exegesis: Prophets and Writings	4 credits
WOR-520	Christian Worldview and Media	4 credits
HTH-611^Ω	Pastoral Theology	4 credits
BIB-621	New Testament Exegesis: Epistles and Revelation	4 credits
WOR-610	Worship Leadership	4 credits
PHI-610	Christian Apologetics	4 credits

Master of Divinity 90

Students who have completed a graduate or baccalaureate degree in Christian Studies, Biblical Studies, Theological Studies, Christian Ministry, or some other GCU-approved, theologically based program are able to waive the Master of Divinity fundamental courses: BIB-501, BIB-502 and MIN-510.

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

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

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
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 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

Graduate Certificate of Completion in Global Ministry

The Graduate Certificate of Completion in Global Ministry prepares students for cross-cultural ministry in a variety of national and international contexts. This certificate is designed to equip students with the tools necessary for service as effective missions leaders in churches and missions agencies in North American and international settings. Coursework for this emphasis introduces students to cross-cultural studies and equips them with skills required for a contextualized gospel ministry.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
INT-545	Anthropological Principles	4 credits
INT-535	The Christian Faith And World Religions	4 credits
INT-675	Global Christianity	4 credits
INT-655	Contextualized Church Planting	4 credits
Graduate Certificate of Completion in Global Ministry		18 credits

Graduate Certificate of Completion in Worship Leadership

The Graduate Certificate of Completion in Worship Leadership prepares students for service in worship ministry. This certificate is designed to equip students with the tools necessary for ministry as effective worship leaders within the church and other Christian worship environments. Coursework emphasizes a biblical theology of worship while developing character, knowledge, and ministerial skills necessary for faithful worship leadership.

Degree Requirements

UNV-505^Ω	Introduction to Graduate Studies in Ministry and Theology	2 credits
WOR-510	Biblical Worship	4 credits
WOR-601	Theology Of Worship	4 credits
WOR-520	Christian Worldview And Media	4 credits
WOR-610	Worship Leadership	4 credits
Graduate Certificate of Completion in Worship Leadership		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

Students who have completed a graduate or baccalaureate degree in Christian Studies, Biblical Studies, Theological Studies, Christian Ministry, or some other GCU-approved, theologically based program are able to waive the fundamental courses: BIB-501 and BIB-502

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

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

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	Biblical Interpretation	4 credits
BIB-350	Pentateuch	4 credits
BIB-360	Gospel and Acts	4 credits
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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	Christian Ethics	4 credits
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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 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-321	Psalms, Hymns, and Spiritual Songs	4 credits
WSA-322	Theology of Worship	4 credits
WSA-423	Worship Leadership	4 credits
WSA-161	Worship Summit I	0 credits
WSA-261	Worship Summit II	0 credits
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Minor in Worship Arts		20 credits

 ^ 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
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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 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 120 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 Biology for Secondary Education Major	85 credits
Total Electives	0-6 credits
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Biology for Secondary Education Major	125 credits
Total Practicum/Field Experience	115 hours

Required General Education

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

MAT-250	College Algebra and Trigonometry	4 credits
BIO-182	General Biology II	3 credits
BIO-182L	General Biology II Lab	1 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
SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
BIO-201	Human Anatomy and Physiology I	3 credits
BIO-201L	Human Anatomy and Physiology I Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
POS-301	U.S. and Arizona Constitutions	2 credits
BIO-202	Human Anatomy and Physiology II	3 credits
BIO-202L	Human Anatomy and Physiology II Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
EDU-330^A	Social Justice for Educators	4 credits
PHY-111	General Physics I	3 credits
PHY-111L	General Physics I Lab	1 credit
CHM-235	Survey of Organic Chemistry	3 credits
CHM-235L	Survey of Organic Chemistry Lab	1 credit
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
BIO-333[‡]	Molecular and Cellular Biology	4 credits

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

BIO-320	Fundamentals of Ecology	3 credits
BIO-320L	Fundamentals of Ecology Lab	1 credit
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
BIO-457^{#A}	Genetics	4 credits
SCI-480	Methods of Teaching Science in Secondary Schools	4 credits
SCI-300L	Laboratory Safety and Supervision	1 credit
SEC-490	Student Teaching for Secondary Education	8 credits
Biology for Secondary Education Major		85 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	72 credits
Total Electives	8-14 credits
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Biology with an Emphasis in Pre-Medicine Major	120 credits

Required General Education

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

MAT-250	College Algebra and Trigonometry (or a college algebra course taken at another accredited institution)	4 credits
ENG-105^A	English Composition I	4 credits
ENG-106^A	English Composition II	4 credits
MAT-274	Probability and Statistics	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
PSY-102	General Psychology	4 credits
SOC-102	Principles of Sociology	4 credits

Biology with an Emphasis in Pre-Medicine Major

BIO-182	General Biology II	3 credits
BIO-182L	General Biology II Lab	1 credit

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
BIO-205	Microbiology	3 credits
BIO-205L	Microbiology Lab	1 credit
BIO-457^{#A}	Genetics	4 credits
BIO-483^f	Pathophysiology	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
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
CHM-451	Pharmacology I	4 credits
HLT-302^A	Spirituality and Christian Values in Health Care and Wellness	4 credits
HLT-305	Legal and Ethical Principles in Health Care	4 credits
HLT-411	Global Health Issues	4 credits
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
PSY-361	Attitude and Social Behavior	4 credits

Biology with an Emphasis in Pre-Medicine Major		72 credits
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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	72 credits
Total Electives	8-14 credits

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

Bachelor of Science in Biology with an Emphasis in Pre-Pharmacy Major 120 credits

Required General Education

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

ENG-105^Δ	English Composition I	4 credits
ENG-106^Δ	English Composition II	4 credits
COM-210	Public Speaking	4 credits
MAT-274	Probability and Statistics	4 credits
MAT-351	Calculus for Biomedical Sciences	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
PSY-102	General Psychology	4 credits
SOC-102	Principles of Sociology	4 credits

Biology with an Emphasis in Pre-Pharmacy Major

BIO-182	General Biology II	3 credits
BIO-182L	General Biology II Lab	1 credit
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
BIO-205	Microbiology	3 credits
BIO-205L	Microbiology Lab	1 credit
BIO-457^Δ	Genetics	4 credits
BIO-483[†]	Pathophysiology	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
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
CHM-451	Pharmacology I	4 credits
CHM-452	Pharmacology II	4 credits
ECN-220	Introduction to Economics	4 credits
HLT-302^Δ	Spirituality and Christian Values in Health Care and Wellness	4 credits
HLT-305	Legal and Ethical Principles in Health Care	4 credits
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

Biology with an Emphasis in Pre-Pharmacy Major 72 credits

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	72 credits
Total Electives	8-14 credits

Total Bachelor of Science in Biology with an Emphasis in Pre-Physical Therapy 120 credits

Required General Education

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

ENG-105^Δ	English Composition I	4 credits
ENG-106^Δ	English Composition II	4 credits
MAT-250	College Algebra and Trigonometry	4 credits
MAT-274	Probability and Statistics	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
PSY-102	General Psychology	4 credits
SOC-102	Principles of Sociology	4 credits

Biology with an Emphasis in Pre-Physical Therapy Major

BIO-182	General Biology II	3 credits
BIO-182L	General Biology II Lab	1 credit
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
BIO-457^Δ	Genetics	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
EXS-214	Care, Treatment, and Prevention of Athletic Injuries	3 credits
EXS-214L	Care, Treatment, and Prevention of Athletic Injuries Lab	1 credit
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-340^f	Physiology of Exercise	3 credits
EXS-340L^f	Physiology of Exercise Lab	1 credit
EXS-370	Pharmacology: Drug Use and Abuse	4 credits
EXS-458^f	Theory and Practice of Strength and Conditioning	4 credits
HLT-302^A	Spirituality and Christian Values in Health Care and Wellness	4 credits
HLT-305	Legal and Ethical Principles in Health Care	4 credits
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
PSY-352	Health Psychology	4 credits
PSY-357	Lifespan Development	4 credits
PSY-361	Attitude and Social Behavior	4 credits
Biology with an Emphasis in Pre-Physical Therapy Major		72 credits

Bachelor of Science in Biology with an Emphasis in 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's Assistant Major	72 credits
Total Electives	8-14 credits
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Total Bachelor of Science in Biology with an Emphasis in Pre-Physician's Assistant	120 credits

Required General Education

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

ENG-105^A	English Composition I	4 credits
ENG-106^A	English Composition II	4 credits
MAT-274	Probability and Statistics	4 credits
MAT-250	College Algebra and Trigonometry	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
PSY-102	General Psychology	4 credits
SOC-102	Principles of Sociology	4 credits

Biology with an Emphasis in Pre-Physician's Assistant Major

BIO-182	General Biology II	3 credits
BIO-182L	General Biology II Lab	1 credit
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
BIO-205	Microbiology	3 credits
BIO-205L	Microbiology Lab	1 credit
BIO-319	Applied Nutrition	4 credits
BIO-457^{f/A}	Genetics	4 credits
BIO-483^f	Pathophysiology	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
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
HLT-302^A	Spirituality and Christian Values in Health Care and Wellness	4 credits
HLT-305	Legal and Ethical Principles in Health Care	4 credits
HLT-411	Global Health Issues	4 credits
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
PSY-352	Health Psychology	4 credits
Biology with an Emphasis in Pre-Physician's Assistant Major		72 credits

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.

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

Assessments within many of the courses guide students through 120 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	88 credits
Total Electives	0-6 credits
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Total Bachelor of Science in Chemistry for Secondary Education	128 credits
Total Practicum/Field Experience	100 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
MAT-262	Calculus for Science and Engineering I	4 credits

Chemistry for Secondary Education Major

SPD-200	Survey of Special Education: Mild to Moderate Disabilities	4 credits
PHY-121	University Physics I	3 credits
PHY-121L	University Physics I Lab	1 credit
CHM-113	General Chemistry I	3 credits
CHM-113L	General Chemistry I Lab	1 credit
MAT-264	Calculus for Science and Engineering II	4 credits
POS-301	U.S. and Arizona Constitutions	2 credits
PHY-122^f	University Physics II	3 credits
PHY-122L^f	University Physics II Lab	1 credit
CHM-115	General Chemistry II	3 credits
CHM-115L	General Chemistry II Lab	1 credit
CHM-420^Δ	Environmental Chemistry	3 credits
ESL-223N	SEI English Language Teaching: Foundations and Methodologies	3 credits
EDU-330^Δ	Social Justice for Educators	4 credits

CHM-231	Organic Chemistry I	3 credits
CHM-231L	Organic Chemistry I Lab	1 credit
SEC-345	Content Area Literacy for Middle and Secondary Teachers	4 credits
ESL-433N	Advanced Methodologies of Structured English Immersion	3 credits
CHM-441	Physical Chemistry I	3 credits
CHM-441L	Physical Chemistry I Lab	1 credit
CHM-232	Organic Chemistry II	3 credits
CHM-232L	Organic Chemistry II Lab	1 credit
SEC-355	Middle and Secondary Curriculum and Assessment	4 credits
SEC-450	Data-Driven Instructional Methods for Middle and Secondary Teachers	4 credits
SEC-455	Classroom Engagement and Management for Middle and Secondary Teachers	4 credits
CHM-360^f	Principles of Biochemistry	3 credits
CHM-360L^f	Principles of Biochemistry Lab	1 credit
SCI-480	Methods of Teaching Science in Secondary Schools	4 credits
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
SCI-300L	Laboratory Safety and Supervision	1 credit
SEC-490	Student Teaching for Secondary Education	8 credits
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Chemistry for Secondary Education Major		88 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, 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
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Total Bachelor of Science in Environmental Science	120 credits

Environmental Science Major

BIO-181	General Biology I	3 credits
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^Δ Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

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^A	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

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

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	60 credits
Total Electives	20-26 credits
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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[‡]	Physiology of Exercise	3 credits
EXS-340L[‡]	Physiology of Exercise Lab	1 credit
EXS-344	Exercise Science: Special Populations	4 credits
EXS-430[‡]	Health Promotion	4 credits
EXS-335	Kinesiology	3 credits
EXS-335L	Kinesiology Lab	1 credit
EXS-431	Health Assessment	4 credits

Exercise Science with an Emphasis in Health Education Major	60 credits
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Bachelor of Science in Exercise Science with an Emphasis in Physical Education

The Bachelor of Science in Exercise Science with an Emphasis in Physical Education program offers a blend of classroom instruction and clinical experience designed to prepare students with necessary skills in physical education, fitness instruction,

and recreational leadership. The program is designed to provide methods and procedures to students through physical education knowledge and an understanding of personal wellness. The program is aligned with the standards set by the National Association for Sport and Physical Education (NASPE) and is well-suited for students interested in the field of exercise science.

Degree Requirements

Total General Education	34-40 credits
Total Exercise Science with an Emphasis in Physical Education Major	60 credits
Total Electives	20-26 credits
<hr/>	
Total Bachelor of Science in Exercise Science with an Emphasis in Physical Education	120 credits

Exercise Science with an Emphasis in Physical Education Major

BIO-155	Introduction to Anatomy and Physiology	3 credits
BIO-155L	Introduction to Anatomy and Physiology Lab	1 credit
PED-200	Lifetime Personal Wellness and Teaching of Fitness	4 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-247^A	Teaching Strategy in Physical Education and Exercise Science	4 credits
EXS-340^f	Physiology of Exercise	3 credits
EXS-340L^f	Physiology of Exercise Lab	1 credit
BIO-319	Applied Nutrition	4 credits
PED-251	Teaching of Team Sports and Individual Activities I	4 credits
PED-263	Teaching of Team Sports and Individual Activities II	4 credits
HLT-485	Methods of Teaching Health and Measuring in Exercise Science	4 credits
EXS-335	Kinesiology	3 credits
EXS-335L	Kinesiology Lab	1 credit
HLT-302^A	Spirituality and Christian Values in Health Care and Wellness	4 credits
PED-405	Elementary School Physical Education	4 credits
PED-344	Physical Education for Special Populations	4 credits
PED-415^f	Secondary School Physical Education	4 credits
HLT-305	Legal and Ethical Principles in Health Care	4 credits
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Exercise Science with an Emphasis in Physical Education Major	60 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
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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^f	Exercise Physiology	3 credits
EXS-340L^f	Exercise Physiology Lab	1 credit
EXS-430^f	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

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

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 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 forensic science. 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	72 credits
Total Electives	8-14 credits
Total Bachelor of Science in Forensic Science	120 credits

Required General Education

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

ENG-105^Δ	English Composition I	4 credits
COM-210	Public Speaking	4 credits
MAT-274	Probability and Statistics	4 credits
MAT-351	Calculus for Biomedical Sciences	4 credits
BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
JUS-230	Fundamentals of Criminal Law	4 credits

Forensic Science Major

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
BIO-457^Δ	Genetics	4 credits
BIO-440[†]	Body Fluid and DNA Analysis	4 credits
BIO-460	Toxicology	4 credits
BIO-483[†]	Pathophysiology	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
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
CHM-365	Instrumental Analysis	3 credits
CHM-365L	Instrumental Analysis Lab	1 credit
JUS-255^Δ	Crime Scene Processing	3 credits
JUS-255L	Crime Scene Processing Lab	1 credit
JUS-265	Physical Evidence I	3 credits
JUS-265L	Physical Evidence I Lab	1 credit
JUS-275	Physical Evidence II	3 credits
JUS-275L	Physical Evidence II 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
SCI-498^Ω	Senior Capstone in Forensic Science	4 credits

Forensic Science Major 72 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

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

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, 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
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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-325	Written and Verbal Communication for Software Development & Lab	4 credits
STG-390 [‡]	Professionalism in Science & Technology: Communications, Conduct, and Ethics	4 credits

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

CST-360	Design Patterns in Java & Lab	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-100	Computer Programming I & Lab	4 credits
CST-115	Computer Programming II & Lab	4 credits
CST-213	Computer Programming III & Lab	4 credits
CST-125	Database Application Programming I & Lab	4 credits
CST-225	Database Application Programming II & Lab	4 credits
CST-230	Database Application Programming III & Lab	4 credits
CST-116	Enterprise Applications Programming I & Lab	4 credits
CST-216	Enterprise Applications Programming II & Lab	4 credits
CST-226	Enterprise Applications Programming III & Lab	4 credits

CST-220	Operating Systems Concepts & Lab	4 credits
CST-200	Algorithms and Data Structures & Lab	4 credits
CST-322	Cloud Computing & Lab	4 credits
ITT-305	Information Security I	2 credits
ITT-306	Information Security II	2 credits
CST-340	Open Source Computing & Lab	4 credits
CST-451 ^Ω	Senior Project I	2 credits
CST-452 ^Ω	Senior Project II	2 credits
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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
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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 Effective Communication competency.)

CST-320	Human-Computer Interaction and Communication & Lab	4 credits
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(Included in General Education totals credits, applied to the Critical Thinking competency.)

BIO-181	General Biology I	3 credits
BIO-181L	General Biology I Lab	1 credit
CHM-113	General Chemistry I	3 credits

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

[CHM-113L](#) General Chemistry I Lab 1 credit

Computer Science with an Emphasis in Big Data Analytics Major

MAT-261	Pre-Calculus	4 credits
CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
CST-200	Algorithms and Data Structures & Lab	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits
MAT-345	Applied Linear Algebra	4 credits
CST-210	Object Oriented Programming & 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
CST-215	Discrete Math and Digital Logic	4 credits
CST-217^f	Principles of Database Design and Programming & Lab	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
CST-305	Principles of Modeling and Simulation & Lab	4 credits
MAT-374	Calculus Based Probability and Statistics	4 credits
CST-315	Operating Systems & Lab	4 credits
CST-310	Computer Graphics & Lab	4 credits
CST-405	Principles of Compiler Design & Lab	4 credits

Two of the following four courses:

STG-451^Ω	Capstone Project I	2 credits
STG-452^Ω	Capstone Project II	2 credits
CST-403^Ω	Computer Science Internship I	2 credits
CST-404^Ω	Computer Science Internship II	2 credits

STG-390^{Δf}	Professionalism in Science & Technology: Communications, Conduct, and Ethics	4 credits
ITT-305	Information Security I	2 credits
ITT-306	Information Security II	2 credits
CST-425	Very Large Information Systems & Lab	4 credits
CST-435	Search Engines and Data Mining & Lab	4 credits
CST-440	Analytics for Dynamic Social Networks & Lab	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 Major	88 credits
Total Electives	0-6 credits
<hr/>	
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 Effective Communication competency.)

CST-320	Human-Computer Interaction and Communication & Lab	4 credits
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(Included in General Education totals credits, applied to the Critical Thinking competency.)

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

Computer Science with an Emphasis in Business Entrepreneurship Major

MAT-261	Pre-Calculus	4 credits
CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
CST-200	Algorithms and Data Structures & Lab	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits
MAT-345	Applied Linear Algebra	4 credits
CST-210	Object Oriented Programming & Lab	4 credits
MAT-264	Calculus for Science and Engineering II	4 credits
PHY-121	University Physics I	3 credits

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

PHY-121L	University Physics I Lab	1 credit
CST-215	Discrete Math and Digital Logic	4 credits
CST-217^f	Principles of Database Design and Programming & Lab	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
CST-305	Principles of Modeling and Simulation & Lab	4 credits
MAT-374	Calculus Based Probability and Statistics	4 credits
CST-315	Operating Systems & Lab	4 credits
CST-310	Computer Graphics & Lab	4 credits
CST-405	Principles of Compiler Design & Lab	4 credits

Two of the following four courses:

STG-451^Ω	Capstone Project I	2 credits
STG-452^Ω	Capstone Project II	2 credits
CST-403^Ω	Computer Science Internship I	2 credits
CST-404^Ω	Computer Science Internship II	2 credits

STG-390^{A^f}	Professionalism in Science & Technology: Communications, Conduct, and Ethics	4 credits
ITT-305	Information Security I	2 credits
ITT-306	Information Security II	2 credits
ITT-325	IT Project Management & Lab	4 credits
ENT-435	Intrapreneurship and Innovation	4 credits
ENT-445	Business Planning for Entrepreneurs	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
<hr/>	
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 Effective Communication competency.)

CST-320	Human-Computer Interaction and Communication & Lab	4 credits
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(Included in General Education totals credits, applied to the Critical Thinking competency.)

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

Computer Science with an Emphasis in Game and Simulation Development Major

MAT-261	Pre-Calculus	4 credits
CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
CST-200	Algorithms and Data Structures & Lab	4 credits
MAT-262	Calculus for Science and Engineering I	4 credits
MAT-345	Applied Linear Algebra	4 credits
CST-210	Object Oriented Programming & 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
CST-215	Discrete Math and Digital Logic	4 credits
CST-217^f	Principles of Database Design and Programming & Lab	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
CST-305	Principles of Modeling and Simulation & Lab	4 credits
MAT-374	Calculus Based Probability and Statistics	4 credits
CST-315	Operating Systems & Lab	4 credits
CST-310	Computer Graphics & Lab	4 credits
CST-405	Principles of Compiler Design & Lab	4 credits

Two of the following four courses:

STG-451^Ω	Capstone Project I	2 credits
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^A Writing intensive course | [♦] Fulfills General Education requirement | ^f Honors Major Course | ^Ω Non-Transferable

STG-452^Ω	Capstone Project II	2 credits
CST-403^Ω	Computer Science Internship I	2 credits
CST-404^Ω	Computer Science Internship II	2 credits

STG-390^{A#}	Professionalism in Science & Technology: Communications, Conduct, and Ethics	4 credits
ITT-305	Information Security I	2 credits
ITT-306	Information Security II	2 credits
CST-410	Game Design and Game Play & Lab	4 credits
CST-415	AI in Games and Simulations & Lab	4 credits
CST-416	Mobile Game Development & Lab	4 credits
Computer Science with an Emphasis in Game and Simulation Development Major		88 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	56 credits
Total Electives	24-30 credits

Total Bachelor of Science in Information Technology	120 credits

Required General Education

(Included in General Education totals credits, applied to the Effective Communication competency.)

STG-390	Professionalism in Science & Technology: Communications, Conduct, and Ethics	4 credits
ITT-325	IT Project Management & Lab	4 credits

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

ITT-430	Security Driven Systems Administration	4 credits
ITT-450	Cloud Technologies, Systems, and Applications & Lab	4 credits

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

ITT-415	IT Business Case Planning for Global Enterprise	4 credits
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Information Technology Major

CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
ITT-115	Platforms and Network Technologies & Lab	4 credits
BIT-210	Object Oriented Programming for Business	4 credits
ITT-200	Cloud-based Computing and Systems & Lab	4 credits
ITT-120	System Administration and Maintenance & Lab	4 credits
ITT-250	Service Oriented Architecture	4 credits
ITT-350	Service Oriented Architecture for Big Data	4 credits
CST-322	Cloud Computing & Lab	4 credits
ITT-305	Information Security I	2 credits
ITT-306	Information Security II	2 credits
CST-220	Operating Systems Concepts & Lab	4 credits
CST-340	Open Source Computing & Lab	4 credits
SYM-400	Introduction to Database Structures	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
ITT-455	IT Project	4 credits

Information Technology Major 56 credits

Bachelor of Science in Information Technology with an Emphasis in Cyber Security

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

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

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 Cybersecurity 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 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 Cyber Security Major	68 credits
Total Electives	12-18 credits
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Total Bachelor of Science in Information Technology with an Emphasis in Cyber Security	120 credits

Required General Education

(Included in General Education totals credits, applied to the Effective Communication competency.)

STG-390	Professionalism in Science & Technology: Communications, Conduct, and Ethics	4 credits
ITT-325	IT Project Management & Lab	4 credits

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

ITT-430	Security Driven Systems Administration	4 credits
ITT-450	Cloud Technologies, Systems, and Applications & Lab	4 credits

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

ITT-415	IT Business Case Planning for Global Enterprise	4 credits
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Information Technology with an Emphasis in Cyber Security Major

CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
ITT-115	Platforms and Network Technologies & Lab	4 credits
BIT-210	Object Oriented Programming for Business	4 credits
ITT-200	Cloud-based Computing and Systems & Lab	4 credits
ITT-120	System Administration and Maintenance & Lab	4 credits
ITT-250	Service Oriented Architecture	4 credits
ITT-350	Service Oriented Architecture for Big Data	4 credits

CST-322	Cloud Computing & Lab	4 credits
ITT-305	Information Security I	2 credits
ITT-306	Information Security II	2 credits
CST-220	Operating Systems Concepts & Lab	4 credits
CST-340	Open Source Computing & Lab	4 credits
SYM-400	Introduction to Database Structures	4 credits
ITT-375	Cyber Forensic Investigations	4 credits
SYM-408	Relational Databases for Business Applications	4 credits
ITT-425	Analysis, Design, and Management of Secure Corporate Networks	4 credits
ITT-340	Cyber Security and Ethical Hacking	4 credits
ITT-455	IT Project	4 credits

Information Technology with an Emphasis in Cyber Security Major 68 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
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Total Bachelor of Science in Biomedical Engineering	128 credits

Required General Education

(Included in General Education total credits, applied to the University Foundations competency.)

UNV-112	Success in Science, Engineering and Technology & Lab	4 credits
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(Included in General Education total credits, applied to the Effective Communication competency.)

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

[STG-390](#) Professionalism in Science and Technology – Communications, Conduct, and Ethics 4 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

[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](#) Team Innovation Experience 3 credits

[STG-110L](#) Team Innovation Experience Lab 1 credit

Biomedical 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

[CHM-235](#) Survey of Organic Chemistry 3 credits

[CHM-235L](#) Survey of Organic Chemistry Lab 1 credit

[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

[MAT-364](#) Differential Equations for Science and Engineering 4 credits

[ESG-202](#) Electrical & Electronic Circuits 3 credits

[ESG-202L](#) Electrical & Electronic Circuits Lab 1 credit

[STG-330](#) Thermodynamics & Lab 4 credits

[ESG-250](#) Computer Aided Engineering & Lab 4 credits

[STG-345](#) Transport Phenomena & Lab 4 credits

[BME-356](#) Biomaterials 3 credits

[BME-356L](#) Biomaterials Lab 1 credit

[BIO-360](#) Medical Physiology 3 credits

[BIO-360L](#) Medical Physiology Lab 1 credit

[ESG-360](#) Statics and Dynamics & Lab 4 credits

[STG-430](#) Engineering Project Management 4 credits

[BME-460](#) Biomedical Instrumentation and Devices & Lab 4 credits

[BME-471](#) Biomedical Design Elements I 2 credits

[BME-472](#) Biomedical Design Elements II 2 credits

[ESG-451](#)^Ω Capstone Project I 2 credits

[ESG-452](#)^Ω Capstone Project II 2 credits

[ESG-455](#) Dynamic Systems & Lab 4 credits

[PHY-122](#) University Physics II 3 credits

[PHY-122L](#) University Physics II Lab 1 credit

[MAT-274](#) Probability and Statistics 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-435](#) Control Systems and Robotics & Lab 4 credits

Biomedical Engineering Major 88 credits

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
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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](#) Professionalism in Science and Technology – Communications, Conduct, and Ethics 4 credits

(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](#) Team Innovation Experience 3 credits

[STG-110L](#) Team Innovation Experience Lab 1 credit

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

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-274	Probability and Statistics	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 ^Δ Ω	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 ^Δ Ω	Capstone Project II	2 credits
MEE-472	Principles of Mechanical Design II	2 credits
MGT-455	Production/Operations Management	4 credits

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
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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

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
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Required General Education

(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390	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	Team Innovation Experience	3 credits
STG-110L	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

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

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-274	Probability and Statistics	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
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,

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

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
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Total Bachelor of Science in Electrical Engineering	128 credits

Required General Education

(Included in General Education total credits, applied to the University Foundations competency.)

UNV-112	Success in Science, Engineering and Technology & Lab	4 credits
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(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390 [‡]	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	Team Innovation Experience	3 credits
STG-110L	Team Innovation Experience Lab	1 credit

Electrical Engineering Major

MAT-262	Calculus for Science and Engineering I	4 credits
CST-110	Introduction to Computer Science and Information Technology & Lab	4 credits
MAT-345	Applied Linear Algebra	4 credits
CST-210	Object-Oriented Programming & 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
CST-215	Discrete Math and Digital Logic	4 credits
CST-307	Introduction to Computer Architecture & Lab	4 credits
MAT-364	Differential Equations for Science and Engineering	4 credits
MAT-374	Probability and Statistics – Calculus Based	4 credits
EEE-202	Circuits	3 credits

EEE-202L	Circuits Lab	1 credit
EEE-213	Signals and Systems	3 credits
EEE-213L	Signals and Systems Lab	1 credit
STG-242	Science of Solid Materials	3 credits
STG-242L	Science of Solid Materials Lab	1 credit
EEE-302	Advanced Circuits & Lab	4 credits
STG-350	Electromagnetic Fields & Optics	3 credits
STG-350L	Electromagnetic Fields & Optics Lab	1 credit
EEE-320	Electronics and Devices & Lab	4 credits
EEE-431	Communications Signal Processing & Lab	4 credits
ESG-441	Power & Energy Systems	3 credits
ESG-441L	Power & Energy Systems Lab	1 credit
ESG-451 ^Ω	Capstone Project I	2 credits
ESG-452 ^Ω	Capstone Project II	2 credits
PHY-122	University Physics II	3 credits
PHY-122L	University Physics II Lab	1 credits
<i>Two of the following four courses:</i>		
STG-403	Internship I	4 credits
STG-404	Internship II	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 was developed with industry guidance to address the Grand Canyon University's Bachelor of Science in Electrical Engineering Technology was developed with industry guidance 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
<hr/>	
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 [‡]	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-274	Probability and Statistics	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	Team Innovation Experience	3 credits
STG-110L	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
MAT-252	Calculus and Analytic Geometry I	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-110	Introduction to Computer Science and Information Technology & Lab	4 credits
CST-215	Digital Logic and Design & 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-115	Platforms and Network Technologies & Lab	4 credits
EET-325	Embedded Systems	4 credits
EET-320	Digital Electronics and Integrated Circuits & Lab	4 credits
EET-330	Communication Networks & Lab	4 credits
ETG-315	Materials and Microscopy & Lab	4 credits
ITT-270	Routing and Switching	4 credits
ETG-498	Senior Project I	2 credits
ETG-420	Quality Control	2 credits
ETG-410	Controls and Instrumentation & Lab	4 credits
ETG-499	Senior Project II	2 credits
EET-430	Electrical Troubleshooting and Maintenance & Lab	4 credits

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

EET-425	Industrial Automation	2 credits
ETG-415	Power and Energy Technologies	3 credits
ETG-415L	Power and Energy Technologies Lab	1 credit
<i>Student must enroll in a total of 8 credits from the following courses:</i>		
CST-307	Introduction to Computer Architecture Lecture & Lab	4 credits
CST-217	Principles of Database Design and Programming Lecture & Lab	4 credits
CST-322	Cloud Computing & Lab	4 credits
STG-403	Internship I	4 credits
STG-404	Internship II	4 credits
Electrical Engineering Technology Major		88 credits

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

Required General Education

(Included in General Education total credits, applied to the University Foundations competency.)

UNV-112	Success in Science, Engineering and Technology & Lab	4 credits
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(Included in General Education total credits, applied to the Effective Communication competency.)

STG-390[‡]	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	Team Innovation Experience	3 credits
STG-110L	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
MAT-364	Differential Equations for Science and Engineering	4 credits
ESG-202	Electrical & Electronic Circuits	3 credits
ESG-202L	Electrical & Electronic Circuits Lab	1 credit
STG-330	Thermodynamics	4 credits
ESG-250	Computer Aided Engineering & 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-352	Solid Mechanics & Lab	4 credits
ESG-360	Statics and Dynamics & Lab	4 credits
STG-430	Engineering Project Management	4 credits
STG-460	Survey of Manufacturing Techniques	4 credits
MEE-460	Mechanical Instrumentation and Devices & Lab	4 credits
ESG-455	Dynamic Systems & Lab	4 credits
MEE-471	Principles of Mechanical Design I	2 credits
MEE-472	Principles of Mechanical Design II	2 credits
ESG-451^{Ω‡}	Capstone Project I	2 credits
ESG-452^{Ω‡}	Capstone Project II	2 credits
PHY-122	University Physics II	3 credits
PHY-122L	University Physics II Lab	1 credit
MAT-274	Probability and Statistics	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

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

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

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
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.)

MAT-274	Probability and Statistics	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	Team Innovation Experience	3 credits
STG-110L	Team Innovation Experience Lab	1 credit

Mechanical Engineering Technology Major

MAT-252	Calculus and Analytic Geometry I	4 credits
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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
MET-212	Static Analysis of Mechanical Systems & Lab	4 credits
CST-110	Introduction to Computer Science and Information Technology & 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
MET-315	Material and Processes & Lab	4 credits
ETG-498 ^Ω	Senior Project I	2 credits
ETG-420	Quality Control	2 credits
MET-312	Metrology and CNC Machining & 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
<i>Student must enroll in a total of 8 credits from the following courses</i>		
MET-415	Tooling Design & Lab	4 credits
MET-312	Metrology and CNC Machining & Lab	4 credits
CST-211	Programming for Engineering & Lab	4 credits
STG-403	Internship I	4 credits
STG-404	Internship II	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.

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

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
PED-331	Coaching Wrestling: Theory and Practice	4 credits

Minor in Athletic Coaching 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-125	Database Application Programming I & Lab	4 credits
CST-225	Database Application Programming II & Lab	4 credits
CST-230	Database Application Programming III & Lab	4 credits
CST-322	Cloud Computing & Lab	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-100	Computer Programming I & Lab	4 credits
CST-115	Computer Programming II & Lab	4 credits
CST-213	Computer Programming III & Lab	4 credits

CST-360	Design Patterns in Java & Lab	4 credits
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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-116	Enterprise Applications Programming I & Lab	4 credits
CST-216	Enterprise Applications Programming II & Lab	4 credits
CST-226	Enterprise Applications Programming III & Lab	4 credits
CST-340	Open Source Computing & Lab	4 credits

Minor in Enterprise Applications Development 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

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

University Administration and Faculty

Academic Administration

Brian Mueller

President; Chief Executive Officer
B.A.Ed., M.A.Ed., Concordia University

Mark Alexander

Senior Vice President, Curriculum and Content Services
B.Mus., Colorado State University; M.Ed., Arizona State University

Kelly Palese

Vice President, Academic Operations
B.S., Southern Illinois University; M.A.Ed., University of Phoenix

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

Senior Vice President and University Registrar
B.A., Washington State University; M.B.A., University of Phoenix;
Ph.D., Walden University

Dr. Antoinette Farmer

Vice President of Institutional Effectiveness
B.S., Arizona State University; M.A.Ed., University of Phoenix;
DHEd, A.T. Still 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. Melanie Logue

Dean, College of Nursing and Health Care Professions
B.S.N., Grand Canyon University; MS/FNP, Arizona State University; DNP/PHD, University of Arizona

Maria Quimba

Associate Dean of Undergraduate Studies
B.S.N., University of Arizona; M.A., Midwestern University;
M.S.N., M.B.A., 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. Michael Sheller

Associate Dean, College of Science, Engineering, and Technology
B.S., Penn State; M.S., University of Texas; Ph.D., Arizona State
University

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

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

Dr. Brian Smith

Assistant Dean, Colangelo College of Business
B.A., Ph.D. University of New Mexico

Faculty

For a current list GCU faculty, please visit the [Faculty Directory](#).

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

Course Descriptions

Accounting (ACC)

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-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-355: Intermediate Accounting **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 will explore accounting for assets, 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-350.

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-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 will explore accounting for assets, 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-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). This course also includes an analysis and interpretation of a firm's three principal financial statements and their uses from a managerial perspective. Prerequisites: 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. Other taxes covered include payroll and sales taxes. 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-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. Prerequisite: ACC-350.

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.

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-633^Ω: Financial Intelligence and Decision Making **3 credits**

This course focuses on understanding, interpreting, and using financial information for the purposes of making sound financial decisions. The concept of financial intelligence is introduced as it relates to effectively analyzing and assessing financial

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

performance to understand what numbers really mean and when or how to appropriately challenge them.

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. Prerequisite: ACC-502

ACC-655: Compliance in Financial Reporting **4 credits**

This course focuses on building an understanding of the U.S. and international regulatory framework of financial reporting. Students learn to apply GAAP, IASs, and IFRSs to practical situations and train to prepare financial statements in accordance with GAAP, IASs, IFRSs, and pronouncements of the Standing Interpretation Committee. Prerequisites: ACC-502 and BUS-611.

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-662: Advanced Accounting and Mergers and Acquisitions **4 credits**

This course is an exploration of advanced topics in financial accounting and reporting, including governmental, nonprofits, partnerships, and the preparation of consolidated financial statements affected by mergers and acquisitions. The financial and economic aspects of merger and acquisition activities are examined in both a domestic and international context. Prerequisite: ACC-616.

ACC-664: Forensic Accounting and Fraud Examination **4 credits**

This course is focused on fraudulent financial reporting and the prevention and detection of irregularities. Students become familiar with fraudulent reporting practices and the misappropriation of assets. Prerequisites: ACC-616, ACC-651, and BUS-623.

ACC-665: Tax Planning and Business Strategy **4 credits**

This course provides the practical and theoretical framework for recognizing tax planning opportunities and applying basic principles of tax strategy in various contexts, including investments, capital expenditures, organizational form, compensation, regulation, financial instruments, and family wealth planning. Prerequisite: ACC-613.

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^Ω: 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 the Auditing and Attestation (AUD) parts of the exam.

ACC-691^Ω: Capstone II **4 credits**

This course is an introduction to the Uniform CPA exam. It is designed to prepare students for the Regulation (REG) and Business Environment and Concepts (BEC) parts of the exam.

Administration (ADM)

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-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. In accordance with UN guidelines on public governance, issues related to transparency, participation, and accountability are also 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-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.

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

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.

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.

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. Prerequisite: ADV-110, DDN-110. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

ADV-260^Δ: 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. Prerequisite: ENG-106, ADV-250.

ADV-340[†]: Media Law and Ethics **4 credits**

This 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.

ADV-350^Δ: 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. Prerequisite: MKT-245 and 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 the selection of appropriate imagery through analysis of audience needs, historical representation of ideas, stereotypes, and cultural iconography. Prerequisite: DDN-110, ADV-250. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

ADV-370: Design Agency 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. Prerequisite: ADV-260, DDN-350. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

ADV-455: Design Agency 2 **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. Prerequisite: ADV-370. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

ADV-470: Design Agency 3 **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. Prerequisite: ADV-455.

Aerospace Studies (AES)

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 credit**

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: 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. Leadership Laboratory (AES-104) is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences. Prerequisite: AES-101.

AES-104: Leadership Laboratory **0 credit**

Every Spring. Leadership Laboratory (LLAB) is a dynamic and integrated grouping of leadership developmental activities

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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. 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: The Evolution of USAF Air and Space Power I **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.

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 credit**

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-203: The Evolution of USAF Air and Space Power II **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. 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 credit**

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-294 (A-E): 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-294 (F-H): 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. Prerequisites: None. Co-requisite: AES-101, AES-103, AES-201, AES-203, AES-301, AES-303, AES-401 or AES-403.

AES-301: Air Force Leadership Studies I **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. Leadership Laboratory (AES-302) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences. Prerequisite: AES-203.

AES-302: Leadership Laboratory **0 credit**

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. Leadership Laboratory (AES-304) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences. Prerequisite: AES-203.

AES-304: Leadership Laboratory **0 credit**

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

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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. Leadership Laboratory (AES-402) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences. Prerequisite: AES-303.

AES-402: Leadership Laboratory **0 credit**

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. Leadership Laboratory (AES 404) is mandatory for AFROTC cadets and complements this course by providing cadets with followership and leadership experiences. Prerequisite: AES 401.

AES-404: Leadership Laboratory **0 credit**

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. Prerequisites: MGT-420.

AMP-450V: Leadership and Vocation **3 credits**

This course emphasizes major behavior patterns that effective leaders use to influence followers. Topics include what effective leaders really do and how leaders can diagnose and modify situations to make their leadership a more positive and productive endeavor.

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.

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. Prerequisite: Fingerprint Clearance.

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). 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.

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-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

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gain perspectives for working with multicultural populations in the behavioral health field. This course will assist 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. Prerequisites: PCN-100 and PSY-380.

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-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.

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. Prerequisites: PSY-470 and 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. Prerequisites: PCN-100 and BHS-430.

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. Prerequisite: BHS-440.

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-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 course is the last course in the program of study; all other course work must be completed before this course.

Bible (BIB)

BIB-104: Old Testament Historical Perspectives **4 credits**

This course is an introductory historical survey of the Old Testament. Attention is given to the study of the Bible itself, its institutions, its literature, and the history of the national life of the Hebrew people from earliest times to the close of the Old Testament period. The course also explores the impact of the Old Testament on the development of Christianity and Christian values.

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BIB-105: New Testament Historical Perspectives 4 credits

This course is an introductory historical survey of the New Testament, beginning with the interbiblical period. The main emphasis of this course is the Gospels and Acts, and the development of Christian faith and perspectives throughout this historical period.

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-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-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-351: Moses and the Prophets 4 credits

This course examines the tradition of the Pentateuch tradition and its elaboration in the prophetic tradition. The scriptural record of beginnings and of early Hebrew history, religion, and law is the foundation for the study, with corresponding attention given to Old Testament prophetic writings. Aspects of the prophetic study include the messianic element, the occasion of writing, authorship, content, and interpretation. Prerequisite: BIB-104.

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-105.

BIB-355^A: 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, BIB-106, and BIB-107.

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, 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.

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. Prerequisites: BIB-501 and 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. Prerequisites: BIB-501 and HEB-501.

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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. Prerequisites: BIB-502 and 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. Prerequisites: BIB-502 and 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. Prerequisites: BIB-501 and BIB-502.

Biology (BIO)

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 credit**

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 credit**

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 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-182L.

BIO-182L: General Biology II Lab **1 credit**

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-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 credit**

This course involves a study of the gross anatomy and functions of the skeletal, muscular, and nervous systems. This experiential lab involves gaining basic knowledge of the use of human cadavers, animal demonstrations, and computer-assisted instruction. 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, hematologic, cardiovascular, lymphatic, 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 credit**

This course is a study of the gross anatomy and functions of the endocrine, cardiovascular, respiratory, digestive, renal, and reproductive systems. The experiential lab involves an advanced exploration of concepts using human cadavers, animal demonstrations, and computer-assisted instruction. 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

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pathologies, immunity, and other selected applied areas. Co-requisite: BIO-205L.

BIO-205L: Microbiology Lab **1 credit**

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-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-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 and Illnesses **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**

Pathophysiology - 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^♦: Science Communication and 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-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. Prerequisites: BIO-181 and BIO-182. Co-requisite: BIO-320L.

BIO-320L: Fundamentals of Ecology Lab **1 credit**

Fundamentals of Ecology-Lab - 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-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-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. Prerequisites: BIO-202 and BIO-202L

BIO-356: 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

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

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.

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: One of the following combinations: 1) BIO-182; or 2) BIO-181 and BIO-181L. Co-requisite: BIO-360L.

BIO-360L: Medical Physiology Lab **1 credit**

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: One of the following combinations: 1) BIO-182; or 2) BIO-181 and BIO-181L. Co-requisite: BIO-360.

BIO-365: Biomedical Statistics **4 credits**

This course is an introduction to basic concepts of descriptive and inferential statistics, experimental design, and an exploration of chronic and infectious disease epidemiology. Students explore study and sampling designs by reviewing the steps of experiment design. Statistical methodologies include graphing, probability theory, estimation, confidence intervals, hypothesis testing, correlation and regression, and analysis of variance. One-, two-, and multi-group parametric and nonparametric methods are introduced, requiring use of Z, t, F, and Chi-squared distributions. Epidemiology techniques include basic measures of disease frequency, exposure-disease associations, prevalence, and incidence relationships. Measures of effect, sources of bias, estimation, and hypothesis testing in epidemiology are discussed, along with estimation of risk and odds.

BIO-440^f: Body Fluid and DNA Analysis **4 credits**

The content of this course is designed to equip learners with a strong background in molecular biology as it applies to serology and forensic DNA analysis. Theories, methods, and techniques used in the analysis and study of gene function, structure, and organization are addressed. The identification of body fluids pertinent to forensics, including saliva, blood, and semen, is introduced. DNA profiling of these fluids and other tissues of forensic interest is included. Key components of QC/QA are featured with reference to FBI, ASCLD, and ISO guidelines. Prerequisites: BIO-457, CHM-365 and CHM-365L.

BIO-457^{Af}: 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-474: Human Gross Anatomy and Dissection **4 credits**

This in-depth course covers the structure of the human body from an applied anatomical perspective. It prepares students for graduate-level gross cadaver anatomy coursework by applying critical thinking skills to anatomical studies and emphasizing proper cadaver dissection technique and respect and dignity for the human cadaver. Small groups work collaboratively to explore, locate, expose, identify, and demonstrate various muscles and associated osteologic landmarks, nerves, and blood vessels of the human body. Prerequisites: BIO-181 and BIO-181L.

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. Prerequisites: BIO-457, BIO-205; Co-requisite: BIO-475L.

BIO-475L: Advanced Genetics Lab **1 credit**

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-483^f: 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, BIO-201L, BIO-202, and BIO-202L; or 2) BIO-360.

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

BIO-484: Human Anatomy **4 credits**

This course introduces advanced anatomy concepts and examines structures and functions of the human body. Upon successful completion of this course, students demonstrate knowledge and/or skill in six levels of structural organization of the human body and how they interact, metabolism, negative and positive feedback mechanisms and their effect on the body, and mechanisms for maintaining homeostasis. Prerequisite: BIO-181.

BIO-492L: Gross Dissection Lab **2 credits**

This lab provides an opportunity for students to study the structure of the human body from an applied anatomical perspective and prepares students for graduate-level gross cadaver anatomy coursework through the application of critical thinking skills to anatomical studies with an emphasis on proper cadaver dissection technique and respect and dignity for the human cadaver. Students explore, locate, expose, identify, and demonstrate various muscles and associated osteologic landmarks, nerves, and blood vessels of the human body. Prerequisites: College approval.

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. Prerequisites: Successful completion of an undergraduate Biology course.

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. Pre-requisites: 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-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.

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 or CST-110.

BIT-417^A: 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 or CST-110.

BIT-430: IT 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.

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

BIT-435: 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. Prerequisites: BUS-352 and SYM-408.

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: 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. Prerequisites: BIT-430.

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 ^Δ: 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.

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, PHY-122, PHY-122L. Co-requisite: BME-356L

BME-356L: Biomaterials Lab **1 credit**

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, PHY-122, PHY-122L. Co-requisite: BME-356.

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-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

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-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.

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

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.

BUS-340^{^A}: 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. Prerequisites: 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.

BUS-411A^Ω: Business Internship 1 credit

An opportunity for students to practice principles learned in the classroom by working in an organization under the supervision of a practitioner. Prerequisites: Permission of the Director of the Internship Program.

BUS-411B^Ω: Business 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. Prerequisites: Permission of the Director of the Internship Program.

BUS-411C^Ω: Business Internship 3 credits

An opportunity for students to practice principles learned in the classroom by working in an organization under the supervision of a practitioner. Prerequisites: Permission of the Director of the Internship Program.

BUS-411D^Ω: Business 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. Prerequisites: Permission of the Director of the Internship Program.

BUS-411E^Ω: Business 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. Prerequisites: Permission of the Director of the Internship Program.

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: 15. Prerequisite: Fingerprint Clearance.

BUS-485^{^AΩ}: 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 1–4 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.

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-637: Serving Communities 3 credits

This course brings a unique societal perspective to the decision-making process within organizations. The concept of

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

"enlightened self-interest" is considered within the context of short- versus long-term business results. Societal business costs are defined and examined, including analysis of both sustainable environmental resources and human quality-of-life issues, which center on social responsibility and community outreach. Case studies will be used to profile and examine organizations considered as exemplary corporate citizens.

BUS-640^Ω: Building Efficient Organizations **3 credits**

This course examines how to streamline and drive inefficiencies out of a firm's internal processes in order to build a super lean, highly efficient organization. It also covers management structures required to support internally integrated processes, examining how to break down silos and build structures that support cross-functional coordination. The course also focuses on external processes by examining ways to achieve greater supply chain integration with suppliers and customers.

BUS-641^Ω: Building Innovative Organizations **3 credits**

This course introduces the challenge of balancing efficiency with the ability to innovate successfully. It examines three steps to achieving successful innovation, including understanding what customers really want and having the right structure, processes, and resources to support innovation.

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.

BUS-697^Ω: Internship **1 credit**

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. Internships are strongly recommended for all academically qualified students for any discipline taught in the College of Business (COB). The College's desire is to promote an environment where students and organizations benefit from real-world application of classroom instruction. In order to arrange an internship, students should consult the COB Director of the Internships.

BUS-697A^Ω: Business Internship **1 credit**

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. Internships are strongly recommended for all academically qualified students for any discipline taught in the College of Business (COB). The College's desire is to promote an environment where students and organizations benefit from real-world application of classroom instruction. In order to arrange an internship, students should consult the Director of the Internships.

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-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-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 ministry. Prerequisite: CHL-520.

Chemistry (CHM)

**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

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

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 credit**

This lab course is designed to complement 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-113: General Chemistry I **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. Prerequisites: MAT-134 or MAT-154. Co-requisite: CHM-113L.

CHM-113L: General Chemistry I Lab **1 credit**

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. Prerequisite: MAT-134 or MAT-154. Co-requisite: CHM-113.

CHM-115: General Chemistry II **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. Prerequisite: CHM-113. Co-requisite: CHM-115L.

CHM-115L: General Chemistry II Lab **1 credit**

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. Prerequisite: CHM-113 and CHM-113L. Co-requisites: 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 credit**

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.

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. The final assignment for the course is a paper that describes the synthesis of a popular pharmaceutical agent. Prerequisites: CHM-231 and CHM-231L. Co-requisite: CHM-232L.

CHM-232L: Organic Chemistry II Lab **1 credit**

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 credit**

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-261, CHM-115, and CHM-115L. Co-requisite: CHM-235L

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

CHM-235L: Survey of Organic Chemistry Lab 1 credit

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-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. Environmental sampling strategies and sample preparation for analysis will also be discussed. Prerequisites: CHM-225, CHM-225L or CHM-231, CHM-231L. Co-requisite: CHM-315L.

CHM-315L: Analytical Chemistry Lab 1 credit

This course will discuss the fundamental principles of analytical chemistry. Topics will include environmental sampling strategies, environmental sample preparations and analysis, instrument operation, data collection and statistical analysis, and presentation of results. Prerequisites: CHM-225, CHM-225L or CHM-231, CHM-231L. Co-requisite: CHM-315.

CHM-331: 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. Prerequisite: CHM-115. Co-requisite: CHM-331L.

CHM-331L: Organic Chemistry I Lab 1 credit

The laboratory section of CHM-331 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-331 is applied to unknown compounds. Prerequisite: CHM-115L. Co-requisite: CHM-331.

CHM-332: 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. The

final assignment for the course is a paper that describes the synthesis of a popular pharmaceutical agent. Prerequisites: 1) CHM-331 and CHM-331L or 2) CHM-231 and CHM-231L. Co-requisite: CHM-332L.

CHM-332L: Organic Chemistry II: Lab 1 credit

The laboratory section of CHM-332 supports and extends principles learned in the lecture course. Students carry out various organic syntheses using techniques taught in CHM-332. 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: 1) CHM-331 and CHM-331L or 2) CHM-231 and CHM-231L. Co-requisite: CHM-332.

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. 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-360L.

CHM-360L: Principles of Biochemistry Lab 1 credit

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: CHM-360 and CHM-360L and one of the following combinations: 1) CHM-231 and CHM-231L, or 2) CHM-331 and CHM-331L, or 3) CHM-235 and CHM-235L. Co-requisite: CHM-365L.

CHM-365L: Instrumental Analysis Lab 1 credit

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: CHM-360 and

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

CHM-360L and one of the following combinations: 1) CHM-231 and CHM-231L, or 2) CHM-331 and CHM-331L, or 3) CHM-235 and CHM-235L. Co-requisite: CHM-365.

CHM-420^A: Environmental Chemistry **3 credit**

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 credit**

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, and MAT-253, MAT-264 or MAT-353. Co-requisite: CHM-441L.

CHM-441L: Physical Chemistry I Lab **1 credit**

A laboratory course designed to complement and support the principles being learned in CHM-441 lecture. Prerequisites: CHM-115, and MAT-253, MAT-264 or MAT-353. Co-requisite: CHM-441.

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: (1) CHM-331 and CHM-331L or 2) CHM-231 and CHM-231L, and CHM-360, and CHM-360L.

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: BIO-205/L, CHM-360/L; Co-requisite: CHM-460L

CHM-460L: Advanced Biochemistry Lab **1 credit**

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: CHM-232 and CHM-360.

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. Prerequisites: CHM-115 and CHM-115L.

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. Prerequisites: CHM-115 and CHM-115L.

Communications (COM)

COM-100: Fundamentals of Communications **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-151: History and Criticism of Visual Media **4 credits**

This course presents the history of visual art and its connection and influence on modern media. Students gain an artistic vocabulary by becoming familiar with many kinds of visual art, developing their skills in visual analysis, increasing their

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

understanding of aesthetic theory, and applying that understanding in presentations. Prerequisite: COM-126.

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-222^f: Small Group Communications 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-231: Persuasive Theory 4 credits

This course is a study of the theory and practice of communication as it relates to influencing attitude and behavioral change. The course begins by presenting a historical overview of persuasive theory from its classical beginnings and progresses to analyzing persuasive strategies and their use by contemporary practitioners. Examples for analysis are taken from advertising, public relations, religion, sales, politics, and propaganda.

COM-263^{Δf}: 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^f: 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.

COM-311: Principles of Public Relations 4 credits

This course presents an overview of the theory and practice of public relations, media relations, promotion, research, and campaigns, as well as an application of theory, through problem solving and case study.

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^Δ: 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^f: 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-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. 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-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-451^{Δf}: 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-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

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

in language that is industry-specific. The course emphasizes the ethical and social responsibility of communications in real-world situations.

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-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. Prerequisites: 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.

Computer Science (CST)

CST-100: Computer Programming I & Lab 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-110: Introduction to Computer Science and Information Technology & Lab 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-134 or MAT-154.

CST-115: Computer Programming II & Lab 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-100.

CST-116: Enterprise Applications Programming I & Lab 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-134 or MAT-154.

CST-125: Database Application Programming I & Lab 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-134 or MAT-154.

CST-200: Algorithms and Data Structures & Lab 4 credits

This course covers classical algorithms and data structures, with an emphasis on implementation and use to solve real-world problems. The course focuses on algorithms for sorting, searching, string processing, and graphs. Students learn basic strategies to characterize and evaluate greedy algorithms, divide-and-conquer, recursive backtracking, and dynamic programming. 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, focusing on algorithm implementation techniques. Prerequisites: CST-210 or CST-115

CST-210: Object-Oriented Programming & Lab 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.

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-213 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 & Lab 4 credits

This is an introductory course in discrete mathematics with extensive coverage of digital logic. Topics covered include logic, Boolean algebra, circuits, number theory, sequences, recursion, sets, functions, counting, finite state machines, automata, and regular expressions. An emphasis will be placed on writing computer programs that address key concepts discussed in lecture. Prerequisite: CST-110 and MAT-261.

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

CST-216: Enterprise Applications Programming II & Lab **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-116.

CST-217^Δ: Principles of Database Design and Programming & 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.

CST-220: 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-225: Database Application Programming II & Lab **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-125.

CST-226: Enterprise Applications Programming III & Lab **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-216.

CST-230: Database Application Programming III & Lab **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-225.

CST-305: Principles of Modeling and Simulation & Lab **4 credits**

This course covers modeling and simulation principles with applications to science, engineering, and business. Students use mathematical models for continuous and discrete simulation, and develop applications for complex systems across a variety of science, business, and engineering domains. Students integrate information from various mathematical and scientific sources; then they loop through a feedback and revision cycle to create simulation, report, and presentation of a scientific phenomenon. The laboratory reinforces and expands learning of principles

introduced in the lecture. Hands-on activities focus on writing code that implements mathematical modeling algorithms and visual simulations of business and scientific phenomena. Prerequisites: CST-210 and MAT-264.

CST-307: Introduction to Computer Architecture & 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-262 and CST-110.

CST-310: Computer Graphics & 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: PHY-121, PHY-121L, CST-210, MAT-262, and MAT-345.

CST-315: Operating Systems & 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.

CST-320: Human-Computer Interaction and Communication & 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. Prerequisite: MAT-262.

CST-322: Cloud Computing & Lab **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, CST-213, CST-216, CST-225 or BIT-210.

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

CST-325: Written and Verbal Communication for Software Development & Lab **4 credits**

This course focuses on gathering and communicating requirements, functional specs, and technically documenting activities associated with software development. Topics include the reasons why software projects fail, the business cost of failure, managing software teams, outsourcing, virtual teams, scope definition, project scheduling, risk mitigation, and leading successful projects. The laboratory reinforces and expands learning of principles introduced in the lecture. 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.

CST-340: Open Source Computing & Lab **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-213, CST-216 or BIT-210.

CST-360: Design Patterns in Java & Lab **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-213.

CST-403: Computer Science Internship I **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. The internship can substitute for one of the following: STG-451, STG-452. Prerequisite: Permission of the Director of the Internship Program.

CST-404: Computer Science Internship II **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. The internship can substitute for one of the following: STG-451, STG-452. Prerequisite: Permission of the Director of the Internship Program.

CST-405: Principles of Compiler Design & Lab **4 credits**

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-210, CST-215 and MAT-307.

CST-410: Game Design and Game Play & Lab **4 credits**

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 & Lab **4 credits**

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: CST-305, CST-310, CST-320, and 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-416: Mobile Game Development & Lab **4 credits**

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. Prerequisites: CST-305, CST-310, CST-320, MAT-374.

CST-425: Very Large Information Systems & Lab **4 credits**

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

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

database. Prerequisites: CST-217, CST-305, CST-307, CST-310, and MAT-374.

CST-435: Search Engines and Data Mining & Lab 4 credits

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 & 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^Ω: 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. Prerequisites: CST-424 and IIT-410.

CST-452^Ω: 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.

Christian Worldview (CWV)

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-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.

Dance (DAN)

DAN-100: Introduction to Ballet Technique 1 credit

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 credit

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-112: Introduction to Tap Technique 1 credit

This course is an introduction to the techniques of tap dance. Topics include fundamental concepts, skills, movement vocabulary, and artistic expression specific to tap.

DAN-120: Introduction to Modern Technique 1 credit

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-A 0.5 credit

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-130B: Dance Ensemble I-B 0.5 credit

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 credit

This course is designed to prepare the student for the GCU Elementary Dance Tour, a multi-media production composed

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

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 credit

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^z: 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 credit

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 credit

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 credit

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 credit

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-A 0.5 credit

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: DAN-130A, DAN-130B, and Audition.

DAN-280B: Dance Ensemble II-B 0.5 credit

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: DAN-130A, DAN-130B, and Audition.

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 credit

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 credit

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.

DAN-315^A: 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-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. Prerequisites: Fingerprint Clearance.

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

DAN-340[^]: 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 credit**

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 credit**

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^{^*}: 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 credit**

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 credit**

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 credit**

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 credit**

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: Dance Ensemble III-A **0.5 credit**

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: DAN-280A, DAN-280B, and Audition.

DAN-380B: Dance Ensemble III-B **0.5 credit**

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: DAN-280A, DAN-280B, and Audition.

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 the elements' intrinsic artistic significance and their significance in organized forms of meaning in 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.

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-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-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: 25. Prerequisite: Fingerprint Clearance and ARE-337.

DAN-412: Vernacular Dance: Tap II **1 credit**

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 credit**

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

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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.

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. Prerequisites: Fingerprint Clearance and DAN-355.

DAN-453: Ballet Technique V **1 credit**

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 credit**

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 credit**

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 credit**

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: DAN-380A, DAN-380B, and Audition.

DAN-480NA: Student Teaching: Elementary Dance 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: 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.

DAN-480NB: Student Teaching: Secondary Dance 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, professional preparation, and curriculum development, and to utilize applicable content standards and Interstate Teacher Assessment and Support Consortium (InTASC) standards within the classroom. Prerequisites: One of the following combinations: 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); and approval and placement by Office of Field Experience. Arizona residents will be required to take the Arizona Educator Proficiency Assessments (AEP). All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

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, and 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

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

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.

DBA-955^Ω: Dissertation I **3 credits**

One of the most essential aspects of bringing research findings to the scholarly community is mastering the discipline of approaching this task in an unbiased, benign manner. This course emphasizes the steps scholars must take in taking their findings and establishing a reporting mechanism that presents the outcomes of the research in a way that clearly articulates the fruits of the researcher's labors without distracting or misinforming the audience. This work is typically done in chapter 4 of a dissertation. Also included in this content are the organization of data sets and the application of tables, charts, and graphs.

DBA-960^Ω: Dissertation II **3 credits**

While chapter 4 focuses on the benign presentation of results, chapter 5 of the dissertation seeks to make sense of these findings in relationship to the overarching body of work that currently exists. Reflections include the synthesis of findings, comparing those findings to previous work done in the area; consideration of issues related to the research process used and the potential challenges and advantages of the approaches used; and thoughts on implications of these findings on the current body of work. In addition to this course content, students learn to present the opportunities for further research that might have emerged as a result of this work and the potential that lies ahead for others to follow. Prerequisite: DBA-955.

DBA-965^Ω: Dissertation III **3 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 includes 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 and preparing to present scholarly papers, as well as other publication venues. 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-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-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-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-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 credit**

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: DBA-970.

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

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-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.

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 provide their own laptop and subscription to the Adobe Creative Cloud, external drive for back-ups, mouse and/or graphics tablet for input.

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.

DDN-210: Designing with Type 4 credits

This course explores fundamentals and traditions for creating, setting, and designing with type, as well as corporate design with an emphasis on typography and 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. Prerequisite: DDN-110. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

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. Digital photo editing and compositing techniques are introduced and explored using digital darkroom software. Students are required to provide their own digital camera for this class. This course includes reading, writing, and lab assignments and requires the creation and exhibition of student photography. Technology requirement: Students provide their own 35mm DSLR camera and tripod along with a personal laptop and subscription to Adobe Lightroom and Photoshop through the Adobe Creative Cloud.

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. Prerequisite: 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. Prerequisite: DDN-110 or instructor permission. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

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. Prerequisite: DDN-105. Technology requirement: Students provide their own laptop and subscription to Adobe Creative Cloud, a graphics tablet, sound editing software (Garage Band or Audacity), and additional supplies as defined during the course.

DDN-310: Digital Painting 4 credits

This course is an advanced study in digital painting tools and techniques used 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.

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

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. Prerequisite: 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.

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; game environment designs; 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^{#A}: 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 interactives. 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 apply a variety of Web design tools for Web site production and usability, as well as to conduct accessibility testing. Prerequisite: DDN-300. Technology requirement: Students provide their own laptop and subscription to the Adobe Creative Cloud.

DDN-355: Content Management Systems **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-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. Prerequisite: 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: 3D 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 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^A: 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

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

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 are completed. 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/caas/sfdcarticles/sfdcarticles/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-410

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 tools, rich Internet applications, and interactive Web games. 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. Prerequisite: 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.

Prerequisite: 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 430.

DDN-475^z: Advanced Design Practicum **4 credits**

This advanced design course, provides a culminating experience in which students incorporate their personal style as designers through 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 provide their own laptop and subscription to the Adobe Creative Cloud.

Digital Film and Production (DFP)

DFP-101^z: Introduction to Cinema: History and 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-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.

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

DFP-221^Δ: 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.

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^Δ: 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-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. Prerequisite: DFP-225.

DFP-457^Δ: 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.

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

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.

DFP-480^Ω: Digital Production Practicum **4 credits**

This practicum provides students with the foundation and practice in digital production. Students learn how to use different media forms to express creativity and ideas. The course goal is to teach students to analyze a script by identifying character objectives, through-lines, key facts, circumstances, and emotional events while transferring that to an on-set production experience. The course focuses on the process and completion of a short production piece. Prerequisite: DFP-451.

Design Studio (DGN)

DGN-210: Introduction to 3D 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^Ω: Dissertation I **3 credits**

This course provides learners with individualized support in their dissertation journey. Learners work directly with their dissertation chair and committee members to continue their research endeavors as aligned with their individual progress plan. Prerequisite: RES-871 or RES-885.

DIS-960^Ω: Dissertation II **3 credits**

This course continues to provide learners with individualized support in their dissertation journey. Learners work directly with their dissertation chair and committee members to continue their research endeavors as aligned with their individual progress plan. Prerequisite: DIS-955.

DIS-965^Ω: Dissertation III **3 credits**

This course continues to provide learners with individualized support in their dissertation journey. Learners work directly with their dissertation chair and committee members to continue their research endeavors as aligned with their individual progress plan. Prerequisite: DIS-960.

DIS-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: DIS-965.

DIS-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: DIS-966.

DIS-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: DIS-967.

DIS-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: DIS-968.

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: Dissertation Research Continuation **0 credit**

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: DIS-970.

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

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

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. 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 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.

DNP-815: 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.

DNP-820: Transitional 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.

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.

DNP-830: 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.

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.

DNP-840: 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.

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

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

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. Prerequisites: DNP-801, DNP-805, DNP-810, DNP-815, DNP-820, DNP-825, DNP-830, DNP-835, and DNP-840.

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. 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. 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.

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 our 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 ISLLC and ELCC standards, in addition to the 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-505TE: 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-510: Education Finance **3 credits**

This course examines K-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,

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

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.

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 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.

EAD-533: Developing and Empowering Instructional Leaders **3 credits**

This course prepares candidates 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. Candidates 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. Practicum/field experience hours: 10. Fingerprint clearance required.

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.

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.

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

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. No practicum/field experience required.

ECH-135: Child Guidance, Management, and the Environment **4 credits**

This course focuses on analyzing theories of child development as they relate to positive classroom environments and classroom management approaches, including the framework for the Guidance Approach. Research is utilized to investigate the social, cultural, and familial contexts that influence learning and development. The Birth to Age 5/Pre-K and K to Age 8/Grade 3 populations are addressed. 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. No practicum/field experience required. 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. Fingerprint clearance required.

ECH-225: Introduction to the Exceptional Learner **4 credits**

This course explores characteristics and quality practices for typical and atypical behaviors of young children. 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-235: Child Growth and Development: Health, Safety, Nutrition, and Fitness **4 credits**

This course explores child growth and development—including physical, cognitive, and social-emotional development with an emphasis on 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-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. 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.

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. 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-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.

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

ECH-435: Developmental and Functional Assessment: Birth to Age 8 **4 credits**

This course provides the learner with a robust view of assessment, evaluation, and testing. The processes of assessing, monitoring, and reporting the progress of young children are investigated. Areas of focus include the history and challenges of testing and the role of technology in assessment. No Fingerprint Clearance necessary.

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-480^Ω: Student Teaching: Birth to Pre-School **6 credits**

This course is the first of two 8-week sessions of student teaching experience in a classroom. The teacher candidate is assigned to an approved school with a 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 Teacher Work Sample (TWS). In this session, teacher candidates are required to complete their internship experiences in a Birth to Pre-School classroom. Prerequisites: Fingerprint Clearance; successful completion of all courses in the 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); 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-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 Teacher Work Sample (TWS). The teacher candidates are required to complete their internship experiences in a K-3 classroom. Prerequisites: Fingerprint Clearance; 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-521TE: 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.

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**

This course is the first of two 8-week sessions of student teaching experience in a classroom. The student teacher is assigned to an approved school with a cooperating teacher, a university supervisor, and a Grand Canyon University course instructor. The course includes practical classroom experiences, research and

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

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 birth to pre-school classroom. Fingerprint clearance required. Prerequisite: ECH-640.

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 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. 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.

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-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. Prerequisites: FIN-350 and ECN-360.

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.

ECN-634^Ω: Managerial Economics **3 credits**

This course examines the application of economic analysis to real-world business problems. The first half of this course covers those aspects of economics that are particularly applicable to business decision making. Topics include demand and cost estimation, production decisions, pricing, analysis of competitive market structures, and antitrust. The second half of this course focuses on the world economy and the global environment within which business must operate. Topics include currency markets and exchange rates, balance of payments accounts, international monetary regimes, and international banking.

Education Administration (EDA)

EDA-534: Educational Administration Foundation and Framework **4 credits**

This course orients students to the program, the field, and the six Interstate School Leaders Licensure Consortium standards guiding them. It includes an introduction to creating a professional portfolio.

EDA-535: Public School Finance **4 credits**

Upon completion of this course, students possess knowledge and understanding of the application of school finance topics related to education at the federal, state, and local levels. The students explore basic administrative theories, processes, and techniques, as well as discuss the major challenges facing them in the daily operation of local schools. In addition, students gain an understanding for the application of financial, organizational, and implementation challenges of integrating technology into the educational community. This course focuses on ISLLC Standards 3 and 6. Practicum/field experience hours: 15. Prerequisite: EDA-577.

EDA-536TE: School Finance for Current Practitioners **3 credits**

This course addresses issues of school finance. Concepts of taxation, sources of revenue, basic budget designs, processes, and techniques are studied. Additionally, consideration is given to the major challenges in the daily operation of local schools.

EDA-537TE: Supervision and Instructional Leadership for Current Practitioners **3 credits**

This course addresses the topic of supervising instruction within several arenas of the educational environment. Students will gain knowledge and understanding for the application of the models and theories of supervision and instructional leadership.

EDA-538TE: Data-Driven Decisions for School Improvement for Current Practitioners **3 credits**

This course provides participants with a wide range of strategies to facilitate the process of school improvement through evidence-based inquiry. Students utilize systematic processes to gather and analyze data while developing a school improvement plan.

EDA-551: Supervision and Instructional Leadership **4 credits**

Because of the pervasive nature of supervision and instructional leadership, this course approaches the topic within several arenas of the educational environment. Upon completion of this course,

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

students possess knowledge and understanding for the application of the models and theories of supervision and instructional leadership, the interpersonal and technical skills needed for supervision, and the tasks and functions of the supervisor. In addition, students possess an understanding for the application of financial, organizational, and implementation challenges of integrating technology into the educational community, as well as leadership strategies to integrate technology into the educational community. This course focuses primarily on ISLLC Standard 2. Practicum/field experience hours: 15. Prerequisite: EDA-577.

EDA-555: Legal Issues in Education **4 credits**

The 21st century school is a complex, ever-changing environment that poses a myriad of challenges to school leadership on a daily basis. This course explores important critical issues currently facing school principals and discusses possible strategies for meeting those issues. Upon completion of this course, educational leaders are able to apply the federal and state laws that govern the operation and conduct of their organization, so that they can achieve their vision and mission without treading upon the constitutional rights and personal freedoms of students and staff. This course addresses the Interstate Leaders Licensure Consortium (ISLLC) Standard 6. Practicum/field experience hours: 15. Prerequisite: EDA-577.

EDA-561: Curriculum Development for School Improvement **4 credits**

Upon completion of this course, educational leaders possess the skills to examine existing curriculum for gaps, strengths, and weaknesses. They also understand the variety of components necessary to build a rigorous curriculum that is also flexible enough to adapt to a constantly changing world and can withstand personal and community bias. The essential elements of curriculum development for school—including improvement by examining goals, beliefs, and current outcomes—are also examined and discussed. In addition, students explore leadership strategies designed to integrate technology into both teaching and learning. This course responds to the Interstate Leaders Licensure Consortium (ISLLC) Standard 2. Practicum/field experience hours: 20. Prerequisite: EDA-577.

EDA-575: Educational Leadership in a Changing World **4 credits**

This course provides a new paradigm for the school leader. Students examine the fundamental concepts of organizational theories and leadership models on a macro level and relate those theories and models to the educational enterprises. Upon completion of this course, educational leaders possess an understanding of the complexity of being a school leader, with experiences ranging from the development of a vision for systemic change to the demonstration of practical skills that work to ensure smooth day-to-day operations of a school. This course is primarily germane to the Interstate School Leaders Licensure Consortium (ISLLC) Standards 1 and 3. Prerequisite: EDA-534.

EDA-577: Data-Driven Decisions for School Improvement **4 credits**

This course provides participants with a wide range of strategies to facilitate the process of school improvement through evidence-based inquiry. Students utilize systematic processes to describe the existing environment and areas of weaknesses in order to facilitate and promote continuous and sustainable school improvement through innovation and change. This course focuses primarily on ISLLC Standards 1 and 3. Practicum/field experience hours: 15. Prerequisites: EDA-534 and EDA-575.

EDA-585: The Principalship **4 credits**

The job of a principal in today's PK-12 environment is both complex and demanding. It requires that a person be skilled in the recruitment, selection, orientation, development, compensation, and evaluation of a highly qualified staff, while also seeing to the leadership and management of the educational organization. This course will explore important critical issues currently facing school principals, including the challenge of attracting and retaining a quality work force in education, while also meeting the myriad of district and state policies and laws. This course focuses on all six of the Interstate School Leaders Licensure Consortium (ISLLC) standards. Practicum/field experience hours: 20. Prerequisites: EDA-534, EDA-575, EDA-577, EDA-555, EDA-535, EDA-551, and EDA-561.

EDA-586A^Ω: Internship in Educational Administration I **4 credits**

This is the first part of a supervised, clinical, 16-week internship that encourages a cooperative arrangement among the key stakeholders. Upon completion, students possess an understanding of the complexity of being leaders, ranging from development of a vision for systemic change to demonstrating practical skills ensuring smooth day-to-day operations. All six ISLLC standards are reviewed. The two parts of this internship require a total of 270 internship hours, split between the A and B sections of the course.

EDA-586B^Ω: Internship in Educational Administration II **4 credits**

This is the second part of a supervised, clinical, 16-week internship that encourages a cooperative arrangement among the key stakeholders. Upon completion, students possess an understanding of the complexity of being leaders, ranging from development of a vision for systemic change to demonstrating practical skills ensuring smooth day-to-day operations. All six ISLLC standards are reviewed. The two parts of this internship require a total of 270 internship hours, split between the A and B sections of the course.

EDA-805: Effective Schools Research **3 credits**

The aim of this course is to assure that students know and understand the philosophy, core beliefs and values, and findings of the effective school beginning in the late 1960s to the present. In addition, the students will explore the effective schools research, focusing on the correlates of effective schools as they have evolved over the years. Students will learn how this large and growing body of research has come to serve as the foundational work for most of the current models for school improvement as well as most state standards and accountability programs.

EDA-810: Case Studies of Effective Schools **3 credits**

Students will conduct critical reviews of various case studies of individual schools and school districts that have used the effective schools philosophy and research findings as their framework for school improvement. The course will provide students with the opportunity to examine the research and practice implications of the effective schools research in the context of different school and district types (elementary, middle, secondary, rural, and urban). Prerequisite: EDA-805.

EDA-815: Leadership for Continuous School Improvement **3 credits**

Educational leaders explore a proven theory of action that will give them the knowledge and skills needed to initiate and sustain

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

a continuous school improvement effort based on the effective schools framework. The course will present and illustrate the steps and stages necessary to design and deploy a process of continuous school improvement that is research-based and data-driven. The tools needed to support this theory of action will be provided and discussed. Prerequisite: EDA-810.

EDA-820: Leadership and Sustainable Educational Change **3 credits**

Schools exist within a nested system that includes the school district and the state in which it resides. The course will focus primarily on the traditional central office roles and functions as well as school board policies that must change in order to support ongoing and continuous school improvement at the individual school level. This course will consider the various change forces that schools and districts are currently confronting. Prerequisite: EDA-815.

Instructional Leadership (EDL)

EDL-805: Training and Collaboration for Learning **3 credits**

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 Education **3 credits**

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 Organizational Learning **3 credits**

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 Education **3 credits**

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.

EDL-815: Systematic Structures for Innovation and Change **3 credits**

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.

EDL-820: The Systematic Use of Data for Innovation and Change **3 credits**

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 Education **3 credits**

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 Strategies **3 credits**

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 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 K-12 education. Professional and facilities development is addressed in the context of K-12 education master planning.

EDL-861: 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

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

of interest. Emphasis is placed on creating structure for reading, analyzing, synthesizing, and organizing prior research for educational purposes. Prerequisite: RES-850.

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^z: 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. Fingerprint clearance not required.

EDU-215^A: Education Foundations and Framework 4 credits

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.

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-330^A: 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-450^z: 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 EDU-210 or EDU-215.

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 optional. 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/clinical field experience hours: 15. Fingerprint clearance is 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 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/clinical field experience hours: 15. Fingerprint clearance is required. Prerequisites: ELM 210; ELM 305.

EDU-505TE: Influences of Family and Community Engagement 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.

EDU-517: WestEd Formative Assessment 3 credits

The purpose of this course is to increase participants' understanding of formative assessment and help them become skillful users of formative assessment in their classrooms in the context of College and Career Ready Standards (CCRS).

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

Emphasis is placed on creating learning goals, providing effective feedback, differentiating assessment methods, and data literacy. Course participants will be required to form within-state teams to share experiences as well as give and receive feedback on their formative assessment implementations. This course includes three synchronous webinar events.

EDU-522: Curriculum Design Theories **3 credits**

Candidates in this course will be introduced to current theories of learning and curriculum design. The emphasis will be on examining and identifying the concepts, principles, and models of curricular theory. Using the interrelationships of these models, candidates will develop and evaluate curriculum.

EDU-522TE: K12 Curriculum Design and Development **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-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. 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: 6. Fingerprint clearance not required.

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-535TE: Classroom Management for Current Practitioners **3 credits**

This course allows the learner to reflect upon and review classroom management techniques and strategies, analyze current trends for well-managed classrooms, and foster a positive classroom environment appropriate to students' developmental levels.

EDU-536: Classroom Engagement and Management **4 credits**

This course is designed to allow the candidate the opportunity to learn techniques involved in the successful engagement and management of a learning environment. Major emphasis is focused on 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.

EDU-537: Leadership and Instructional Coaching **3 credits**

Candidates will learn and apply coaching techniques in school and community settings. Emphasis is placed on improving teacher practices, school culture, and effective communication. Candidates will use cognitive coaching and teacher leadership skills. Practicum/Field Experience hours: 10. Fingerprint clearance required.

EDU-546: Curriculum Mapping **3 credits**

In this course, candidates apply district goals/state standards in developing year-long units of study. Curriculum mapping analysis skills will be developed to align program objectives systematically to achieve state and district learning goals. Emphasis is placed on Backwards Design and inquiry-based learning. Practicum/field experience hours: 10. Fingerprint clearance required.

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 in this course 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: 10 hours. Fingerprint clearance required.

EDU-576: Philosophical and Social Issues in 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.

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

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

that ensure learner growth and advance the profession by leading collaborative interactions. Fingerprint clearance not required.

EDU-588^Ω: Curriculum and Instruction Capstone 3 credits

Candidates will deliver, evaluate, and revise a professional development presentation, and incorporate peer and faculty interaction with feedback to assure timeliness and relevance. Candidates will conduct a professional development needs assessment and create a year-long professional development plan for their school. Practicum/field experience hours: 30. Fingerprint clearance required. Prerequisite: EDU-586.

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.

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.

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. Co-requisites: 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. Co-requisites: 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,

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

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. Prerequisite: 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: EEE-202 and EEE-202L. Co-requisite: EEE-213.

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: 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: 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 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-302 and MAT-374.

Elementary Education (EED)

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. Prerequisites: 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. Prerequisites: EDU-215 or EDU-210.

EED-480NA^Ω: Student Teaching: Elementary 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). Prerequisites: Fingerprint Clearance; 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

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

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.

EED-480NB^Ω: Student Teaching: Elementary Session B **6 credits**

This session is a continuation of Session A. Prerequisite for B: EED-480NA.

EED-510: Curriculum, Assessment, and Methods: Science and Mathematics **4 credits**

This course is designed to acquaint elementary teachers with curriculum and effective techniques for the teaching of science and mathematics. Students are involved in planning instruction, assessment, and employment of science and mathematics programs that are currently being used in public schools and in using instructional models. This course includes laboratory experiences. Practicum/field experience hours: 20. Fingerprint clearance required.

EED-515TE: Curriculum, Assessment, and Methods for Elementary Math & Science for Current Practitioners **3 credits**

This course is designed to acquaint elementary teachers with curriculum and effective techniques for the teaching of science and mathematics. Students are involved in planning instruction, assessment, and employment of science and mathematics programs that are currently being used in public schools and in using instructional models. This course includes laboratory experiences. Practicum/field experience hours: 20. Fingerprint clearance required.

EED-516TE: K-3 Reading Methods for Current Practitioners **3 credits**

This course examines methods to help children in grades K-3 develop literacy skills through a focused reading program that integrates decoding and comprehension in a literature-based environment.

EED-517TE: Methods of Teaching Social Studies in Elementary Schools for Current Practitioners **3 credits**

This course offers students an opportunity to develop an authentic performance activity informed by social studies state and national standards. The course focuses on meaningful instruction and assessment of learning in the social studies, along with effective practice and integrated instruction and methodology.

EED-525: Curriculum, Assessment, and Methods: Literacy **4 credits**

This course is designed to develop a coherent, research-based program fostering literacy in the classroom. The course includes discourse theory as it pertains to the teaching of reading and writing. Emphasis is placed on planning, assessment, management, and delivery of lessons in reading comprehension, children and adolescent literature, phonics, writing, oral language, vocabulary, and evaluation of learning. Practicum/field experience hours: 15. Fingerprint clearance required.

EED-544: Prescriptive Reading and Assessment **4 credits**

The focus of this course is on reading diagnostics, assessments, and strategies implemented with elementary students. Emphasis is also given to research-based systematic phonics instruction, as

well as assessment and management methods. Practicum/field experience hours: 20. Fingerprint clearance required.

EED-570: Curriculum, Assessment, and Methods: Social Studies **4 credits**

This course presents the current research-based curriculum developments and models of effective instruction and of assessment and management used in the field. Emphasis is placed on the construction of unit and daily lesson plans, materials, and resources with implementation in the elementary classroom. Practicum/field experience hours: 15. Fingerprint clearance required.

EED-580NA^Ω: Student Teaching: Elementary 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). Prerequisites: Fingerprint Clearance; 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.

EED-580NB^Ω: Student Teaching: Elementary Session B **6 credits**

This session is a continuation of Session A. Prerequisite for B: EED-580NA.

Electrical Engineering Technology (EET)

EET-202: Applied Circuits **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, op-amps, and SPICE modeling. Students also develop skills in PCB fabrication and soldering. Corequisite: PHY-112 and PHY-112L.

EET-202L: Applied Circuits Lab **1 credit**

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. Co-requisites: PHY-112, PHY-112L, 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

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

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. Prerequisites: 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. Prerequisites: ETG-410, ETG-415

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^Δ: 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.

ELM-210: Instructional Planning and Assessments for Elementary Teacher Candidates **4 credits**

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. Focused attention is upon children's informational text. Practicum/clinical field experience hours: 5. Fingerprint clearance is required.

ELM-250^Δ: Creating and Managing Engaging Learning Environments **4 credits**

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**

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/clinical field experience hours: 20. Fingerprint clearance is required. Prerequisite: ELM-210

ELM-350: Methods and Strategies of Teaching and Integrating Social Studies and the Arts **4 credits**

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/clinical field experience hours: 10. Fingerprint clearance is 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-490: Student Teaching for Elementary 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 Teacher Work Sample (TWS). Fingerprint clearance required. Prerequisites: Successful completion of all courses in POS and content area; a 2.8 GPA; successful completion of NES or your

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

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.

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: 6. Fingerprint clearance not required.

ELM-505TE: Foundational Literacy Skills and Phonics **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-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 not 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. This course requires 6 hours of field experiences.

ELM-530: Assessment for 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-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 not required. Prerequisites: ELM-530.

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.

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.

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,

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

materials, and ideas. Practicum/field experience hours: 12. Fingerprint clearance required. Prerequisite: ELM-530.

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.

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.

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 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 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-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.

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-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-435: Health, Shelter, and Evacuation Issues in Emergency Management **3 credits**

This course examines 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. Equivalent to JUS-442.

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: Economic 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 Threats **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.

English (ENG)

ENG-105^Δ: English Composition I **4 credits**

This is a course in writing academic prose, including various types of essays, arguments, and constructions. A writing intensive course.

ENG-106^Δ: 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.

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

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-135^A: Life 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.

ENG-206HN^A: 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^A: 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. Prerequisites: ENG-105.

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-260: English Literature I **4 credits**

This course is a survey of English Literature from the Old English period through the Enlightenment. Prerequisites: ENG-250.

ENG-270^B: English Literature II **4 credits**

This course is a continuation of ENG-260, covering the Romantic period through the Modern period. Prerequisites: ENG-250.

ENG-350: American Literature I **4 credits**

This course is a study of outstanding authors, their works, and the literary movements from the Colonial Age to Romanticism (1850). Prerequisites: ENG-250.

ENG-353^A: American Literature II **4 credits**

This writing intensive 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-355^B: 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. Prerequisites: 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. Prerequisites: 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. Prerequisites: 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.

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. Prerequisites: 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. Prerequisites: 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. Prerequisite: ENG-240.

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. Prerequisite: ENG-240.

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. Prerequisite: ENG-240.

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

ENG-424: 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-450: Shakespeare **4 credits**

This course is a study of Shakespeare's major plays and his development as a dramatist, including some consideration of Shakespeare's cross-cultural reception. Prerequisite: ENG-260.

ENG-451^f: 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. Prerequisites: ENG-105.

ENG-456^f: 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. Prerequisites: ENG 240, ENG-105.

ENG-460^A: The Novel **4 credits**

This writing intensive 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-250.

ENG-466^A: 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 and 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. Prerequisites: Fingerprint Clearance.

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. Prerequisites: Fingerprint Clearance.

ENG-477^Ω: Professional Writing Capstone **4 credits**

This course critically surveys the broad competencies and understandings covered in the major, critically analyze ethical issues in the writing professions, consider intersections between worldviews (particularly Christian worldviews) and the rhetorical and communications professions, and facilitate the creation of student portfolios of material and résumés/curriculum vitae. 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-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.

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

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.

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 culminates with the preparation of a comprehensive business plan for a new venture.

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. Prerequisites: CHM-235, CHM-235L or CHM-231, CHM-231L

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.

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. Prerequisites: CHM-235, CHM-235L or CHM-231, CHM-231L..

ENV-402: Chemical Investigation and Remediation Strategies 4 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: CHM-315, CHM-315L, 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 4 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: CHM-315, CHM-315L and 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-202L: Electrical & Electronic Circuits Lab 1 credit

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. Prerequisite: PHY-122 and PHY-122L. Co-requisite: ESG-202.

^ 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 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.

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 and PHY-121L.

ESG-421: Advances in Computer Design & Lab 4 credit

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, including parallel processors and supercomputers. Prerequisites: CST-307, and EEE-302.

ESG-430: Advanced Robotics & Lab 4 credit

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. Prerequisite: ESG-330, MAT-345, STG-330.

ESG-435: Control Systems and Robotics & Lab 4 credit

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. Prerequisites: PHY-122, and PHY-122L.

ESG-441: Power & Energy Systems 3 credit

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, and PHY-122L. Co-requisite: ESG-441L.

ESG-441L: Power & Energy Systems Lab 1 credit

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. Prerequisite: PHY-122 and PHY-122L. Co-requisite: ESG-441.

ESG-451^{Ω/Δ}: Capstone Project I 2 credit

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.

ESG-452^{Ω/Δ}: Capstone Project II 2 credit

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: ESG-451.

ESG-455: Dynamic Systems & Lab 4 credit

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 credit

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, diagnostic instruments, artificial organs, biomedical devices, bio-signaling, 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.

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

Computational software will be used to support laboratory data analyses. Prerequisite: BIO-181, BIO-181L, and EEE-320.

English as a Second Language (ESL)

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-223N: SEI English Language Teaching: Foundations and 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-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 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 language. Practicum/Field experience: 10. Fingerprint clearance required. Prerequisite: ESL-250.

ESL-358: ELL Curriculum and Methods of Instruction **4 credits**

In this course, candidates will review curriculum and methods appropriate to 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: 10. Fingerprint clearance required. Prerequisite: ESL-223N.

ESL-365: ELL Assessment **4 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: 10. Fingerprint clearance required. Prerequisite: ESL-358.

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-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-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 Teacher Work Sample (TWS). Prerequisites: Fingerprint Clearance; successful completion of all courses in POS and content area; senior status; a 3.0 GPA; successful completion of state-mandated NES content area exams; and approval and placement by Office of Field Experience. All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

ESL-500TE: SEI English Language Teaching: Foundations and 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. Students will be instructed in immersion strategies and the use of assessment data.

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

ESL-501TE: Advanced Methodologies of Structured English Instruction **3 credits**

In this course, students continue to examine the fundamentals of the legal, historical, and educational foundations of Structured English Instruction (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. Students will identify strategies to promote English language development and improve student achievement. They will plan, deliver, and evaluate instruction for English Language Learners.

ESL-523: 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-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.

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 DAQ systems, results documentation, and statistical analysis of data. Prerequisites: PHY-111, PHY-111L, PHY-112 and 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. Prerequisite: PHY-122, PHY-122L, CHM-113, and CHM-113L.

ETG-410^f: Controls and Instrumentation & Lab **4 credits**

This course examines the various methods of controlling mechanical systems and is an extension of the Applied Circuits course. Topics include interfacing with analog and digital sensors, motors, and actuators. Advanced control software will be used for programming the systems. Prerequisite: EET-202 & 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 credit**

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.

ETG-498^Ω: 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. Prerequisites: Senior Status or College Approval.

ETG-499^{ΔΩ}: 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.

Exercise Science (EXS)

EXS-200: Resistance Training: Theory and Practice **3 credits**

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 credit**

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**

This course introduces the principles and techniques of cardiovascular activities and training. This includes exercise

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

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 credit**

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-214: Care, Treatment, and Prevention of Athletic Injuries **3 credits**

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 credit**

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**

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.

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-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.

EXS-322: Clinical Instruction: Emergency, Taping, Bracing **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 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 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: 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. Co-requisite: EXS-335L. Recommended: PHY-101 or PHY-111 (may be taken concurrently).

EXS-335L: Kinesiology Lab **1 credit**

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. Co-requisite: EXS-335.

EXS-340^Δ: Physiology of Exercise **3 credits**

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. Co-requisite: EXS-340L.

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

EXS-340L[‡]: Physiology of Exercise Lab **1 credit**

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. Co-requisite: EXS-340.

EXS-344: Exercise Science: Special Populations **4 credits**

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**

This 16-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**

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 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 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-322.

EXS-353: Clinical Instruction in Athletic Training IV **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 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.

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 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 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-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,

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

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-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.

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 credit**

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^A: 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: Successful completion of all previous coursework in the program of study.

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 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 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. 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: EXS-340 and EXS-340L, and one of the following combinations: 1) BIO-155 and BIO-155L, or 2) BIO-201 and BIO-201L. Co-requisite: EXS-426L.

EXS-426L[†]: Theory of Prescribing Exercise Lab **1 credit**

This course reinforces and expands learning gained in the lecture course. Practical applications and experiments include exercise prescription and rehabilitation techniques. Prerequisites: EXS-340 and EXS-340L, and one of the following combinations: 1) BIO-155 and BIO-155L, or 2) BIO-201 and BIO-201L. Co-requisite: EXS-426.

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: EXS-335 and EXS-335L.

EXS-430[†]: 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.

^A 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.

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-455: Advanced Principles of Sports Performance **4 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. Co-requisite: EXS-455L Prerequisite: EXS-340 and EXS-340L.

EXS-455L: Advanced Principles of Sports Performance Lab **1 credit**

This course applies the principles and techniques of strength training including sport- and activity-specific program design and implementation. Co-requisite: EXS-455; Pre-requisite: EXS-340 and EXS-340L.

EXS-458^z: Theory and Practice of Strength and 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-340 and EXS-340L.

EXS-481^{ΔΩ}: Sports Performance Capstone **4 credits**

This writing intensive, 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. Prerequisite: EXS-455 and EXS-455L

Finance (FIN)

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-350: Fundamentals of Business Finance **4 credits**

This course is a general survey of financial institutions, the Federal Reserve System, the qualities of a sound monetary system, the theory and value of money, deposit insurance, and foreign exchange. Prerequisites: ECN-220, ACC-250, and one of the following: MAT-134, MAT-144, or MAT-154.

FIN-450: Intermediate Finance **4 credits**

This course is a 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-350 and FIN-350.

FIN-451: Investments and Portfolio Management **4 credits**

This course studies stocks, bonds, and other investment vehicles, and their application in investment portfolio management. The securities market and trading procedures are discussed. 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.

FIN-452: Securities Analysis **4 credits**

This course focuses on the theory and practice of corporate valuation. Students learn to assess a firm's business and determine whether it is creating value for shareholders. Topics include analysis of financial statements, development of pro forma, and valuation models of the firm. This course emphasizes publicly traded corporations, although the principles covered also can be applied to privately held firms. A strong emphasis is also placed on modeling pro forma financial statements and valuation estimates. Prerequisite: FIN-350.

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-638^Ω: Financial Management **3 credits**

This course discusses elements of business financial decisions, including financial forecasting, management of working capital, capital budgeting, capital structure, and raising funds in capital markets. The role of mergers and acquisitions in growth strategies and understanding the various stakeholders of the corporation are also examined topics.

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.

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

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.

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**

This course helps student to develop the fundamentals of hearing, speaking, reading, and writing German. Students use a variety of tools and techniques to learn and practice elementary-level language skills.

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.

Golf (GLF)

GLF-111: Player Development: The Full Swing I **1 credits**

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 Swing II **1 credits**

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-200: Introduction to Golf Management **4 credits**

This course introduces principles of golf management, including an overview of the industry, course design, sustainability, 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.

GLF-211: Player Development: The Short Game I **1 credits**

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 Game II **1 credits**

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 Strategy I **1 credits**

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 Strategy II **1 credits**

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 Full Swing **1 credits**

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 Short Game **1 credits**

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 Operations **4 credits**

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.

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

GLF-460: Marketing and Revenue Generation in the Golf Industry **4 credits**

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.

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-307^z: 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. Prerequisite: GOV-140.

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-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-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^z: 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^Ω: 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. Prerequisite: Successful completion of all courses in Program of Study and content area.

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. Prerequisites: 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.

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

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 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-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. Prerequisites: HLT-205 and HLT-305.

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. Prerequisite: HCA-450.

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 as well as 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. Prerequisite: HCA-460.

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. Prerequisite: HLT-364.

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 the practical financial-analysis skills that have immediate application within the health care industry, as well as managerial decision-making processes based on cost, service, and economic variables that influence market performance and outcome.

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 Analyses 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.

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-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,

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

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-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-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.

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 Operations **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.

Hebrew (HEB)

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-410: Foundations and Concepts of Health Care Informatics & 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. 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 & 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.

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

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.

HIM-450: Health Care Data Management & 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-484: Innovations in Health IT & 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-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.

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 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-144: U.S. History Themes 4 credits

This course provides an overview of the principal political, economic, and cultural, themes that shaped the United States from the Colonial period into the 20th century.

HIS-221: Themes in United States History 4 credits

This course is a survey of U.S. history from the Colonial era to the present. Topics include the American Revolution, the early national period, Jeffersonian and Jacksonian America, the Civil War and the Reconstruction, industrialization, the World Wars, the Great Depression, and the Cold War and the post-Cold War eras.

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^A: 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. Prerequisite: Fingerprint Clearance.

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

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^{^A}: Civil War and Reconstruction 4 credits

This writing-intensive 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.

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-386^{^A}: 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-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-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-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: Problems in 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.

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

HIS-544: Problems in 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-100: 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-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.

HLT-307V: Professional Dynamics and Allied Health Professions **3 credits**

Allied health professionals are involved with all aspects of health care delivery and are integral members of the collaborative health care team. This course 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 addresses the concerns of every health care professional regarding legal responsibility, workplace safety, and the health care facility's obligation to provide protection from injury for patients, their families, and staff. The institution must also be protected from accidental injury costs. This is the purpose of a risk management department. Federal, state, county, and city statutes that regulate the administration of safe health care are discussed. At the end of this course, students should be able to explain their part as health care professionals in the ethical and legal responsibilities of risk management.

HLT-310V[♦]: 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, designed for health care professionals (providers, educators, and managers), introduces the student 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 (paternalism, informed consent to therapy,

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

participation in research); dilemmas of life and death (euthanasia, abortion, transplants, gene therapy, care for the dying); 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 is designed to impart an understanding of the forces shaping the present and future health care delivery system.

HLT-317V^Δ♦: 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.

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 introductory course on statistical concepts emphasizes applications to health care professions. The course is designed to prepare students to interpret and evaluate statistics and statistical methods used in published research papers and to make decisions about the appropriateness of specific statistical methods in a variety of settings. Areas of emphasis include introduction to analysis of variance, regression, and graphical presentation; experimental design; descriptive statistics; sampling methods; and z , t , and chi-square.

HLT-364^Δ: 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 the (evidence-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.

HLT-380: Principles of Public and Environmental Health **4 credits**

This course is a study of the public agencies and their contribution to the health of the community and health risks related to the environment on personal, community, regional, national and global levels. Topics include fundamentals, philosophy, history, and functions of public health services, air, water, waste, disease, toxicology, and occupational health and environmental health planning. Emphasis is placed on the student’s personal health and how it is affected by public and environmental health factors. 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.

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 developed, developing, and resource-limited nations, and explores the social, behavioral, economic, biomedical, and environmental determinants of health. The global epidemiology of major diseases and threats to the populations of the world are examined, as well as the current organizational structures that have been established to respond to them. Topics include communicable diseases, noncommunicable diseases, unintentional injury and violence, health promotion, reproductive health, maternal and child health, and disaster preparedness. Students gain an understanding of the diverse determinants associated with major 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 interdisciplinary collaboration. Perspectives from a wide variety

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

of disciplines, such as epidemiology, biology, environment, human rights, nursing, psychology, public policy, technology, and economics, are explored. Students acquire an understanding of the relationship between health and socio-cultural-economic development, and the impact of policy on health care.

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; 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 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: 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, and PED-247.

HLT-490V^{ΔΩ}: Professional Capstone Project 3 credits

This writing intensive course is designed to aid in the development of inquiry and research skills. Learning research skills and conducting research projects benefit the individual and the profession—the individual by learning new knowledge and skills, and the profession by adding to the professional body of knowledge.

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. Students are required to prepare a written proposal for their chosen evidence-based project which focuses on the resolution of issues or problems significant to health care administration. Principles of merger, acquisition, reorganization, and joint venture are explored from a strategic management framework. Capstone projects are intended to be presented to a senior-level administrator at a current or potential place of employment. 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

Topics covered in this course include principles and models for the recognition, analysis, and resolution of ethical dilemmas in

health occupations; legal responsibility; workplace safety; and the 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 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.

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

HLT-660^Ω: 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 80 hours of on-site work under close supervision of a faculty member and an on-site preceptor approved by the college or university. Prerequisites: HLT-605.

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. Prerequisites: HLT-605 and a release by the college's Office of Field Experience.

Honors (HON)

HON-106[†]: Freshman Symposium on Ethics: Culture, Perception, and Action **0 credit**

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 in the honors program.

HON-206[†]: Sophomore Symposium on Service: Human Connections **0 credits**

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-306[†]: Junior Symposium on Leadership: the Last Shall Be First **0 credit**

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-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.

Hospitality (HOS)

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-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 and HOS-465.

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

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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-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-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^Δ: 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-104 and BIB-105.

HTH-469^Δ: 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/postmodern 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 subcultures. 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-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. Prerequisites: BIB-501 and BIB-502.

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-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: BIB-501, BIB-502, and 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.

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

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 taught in residency. Prerequisites: HTH-505, HTH-550, and HTH-610.

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-310^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-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 taught in residency.

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.

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-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.

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-115: Platforms and Network Technologies & Lab **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-110.

ITT-120: System Administration and Maintenance & Lab **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. Prerequisites: ITT-115.

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

ITT-200: Cloud-based Computing and Systems & Lab **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. Prerequisites: CST-110 and MAT-261.

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.

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

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. Prerequisites: ITT-120, CST-210, CST-220.

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-325: IT Project Management & 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. Prerequisites: CST-225, ITT-250, BIT-210 or BIT-200.

ITT-330 Data Center Systems Administration **4 credits**

This course explores in greater details concepts introduced in ITT-305/306. The course emphasizes security in applications and software from the perspective of the data center system administrator. The course includes hands-on exercises using virtual machines focusing on current trends in data centers architecture. Prerequisite ITT-305 and ITT-306

ITT-340: Cyber Security 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-330

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-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-306.

ITT-403^o: Information Technology Internship **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. Prerequisites: Permission of the Director of the Internship Program.

ITT-404^o: Information Technology Internship **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. Prerequisites: Permission of the Director of the Internship Program.

ITT-410: Emerging Technologies & 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

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

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-325 or ITT-325.

ITT-422: Strategies for Technology Innovation & Lab **4 credits**

This course enables students to plan and develop strategies that foster technological innovations. Students analyze how firms plan, create, and commercialize technology-based products and services. Students will examine technologies that transformed start-ups into industry bellwethers and industry leaders that perished due to lack of innovation. The laboratory reinforces and expands learning of principles introduced in the lecture. Hands-on activities focus on planning, implementing, and evaluating an innovative solution to an IT problem using only technologies, devices, and software tools available. Prerequisites: CST-320 and ITT-325.

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

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.

ITT-450: Cloud Technologies, Systems, and Applications & 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: 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 and ITT-430 or ITT-450.

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-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-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^A: 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-255^A: Crime Scene Processing **3 credits**

This writing intensive 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: JUS-255L.

JUS-255L: Crime Scene Processing Lab **1 credit**

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: JUS-255^A.

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^A. Co-requisite: JUS-265L.

JUS-265L: Physical Evidence I Lab **1 credit**

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,

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

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 credit**

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-325^A: 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-435^A: 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-452^A: 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-460: Ethics in the Criminal Justice System **4 credits**

This course conducts an in-depth examination of the subculture created in the American justice system. Police subculture, corrections subculture, and the culture of the courtroom workgroup are explored from the perspective of a participant. Prerequisite: JUS-250.

JUS-499: Independent Study **1–4 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-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. Additionally, coverage is provided for use of research design in community action.

JUS-515: Organizational Behavior and Leadership in Criminal Justice **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-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-531: Constitutional Issues in Criminal Justice **4 credits**

This course conducts an in-depth analysis of both historic and contemporary questions of constitutional rights. Provided is an understanding of the powers of the federal courts, Congress, and the president; an examination of the doctrines of separation of power and federalism; and discussion regarding some of the limitations that the Constitution imposes on state powers. Topical coverage also includes the takings and contracts clauses, due process, freedom of speech, freedom of religion, and equal protection.

JUS-610: Forensic Psychology **4 credits**

This course provides an objective study of the many roles psychology plays in the legal system, including expert witnesses, criminal profilers, and trial consultants for jury selection and child custody hearings.

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

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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.

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-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.

Leadership (LDR)

LDR-461: Professional Applications in Service Learning I 1 credit

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.

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-625: Organizational Culture and Team Leadership 4 credits

This course equips students to fully understand the complexities of organizational systems and cultures, the ways in which these forces manifest themselves, and the means by which leaders intentionally impact the shape that these forces take in their organizations. Additionally, this course covers team dynamics, group processes, and strategies for designing and supporting teams in the workplace.

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.

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

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-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. Prerequisites: MGT-605, LDR-600, LDR-630, LDR-640, LDR-612, and LDR-615.

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-661: Professional Applications in Service Learning I **1 credit**

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-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 is 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.

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 credit**

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. Prerequisite: Music Department approval and placement audition.

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 credit**

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. Prerequisite: 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: Music Department approval and placement audition.

MAP-218: Private Piano Study III **1 credit**

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. Prerequisite: Music Department approval and placement audition.

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: 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: Music Department approval and placement audition.

MAP-250: Private Piano Study IV **1 credit**

This course is the applied private study for music majors in their secondary instrument or area, and/or the applied private study for

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non-music majors. Prerequisite: Music Department approval and placement audition.

MAP-313: Private Piano Study Secondary Instrument V **1 credit**

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.

MAP-318: Private Piano Study V **1 credit**

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. Prerequisite: Music Department approval and placement audition.

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: Music Department approval and placement audition.

MAP-323: Private Piano Study Secondary Instrument VI **1 credit**

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.

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: Music Department approval and placement audition.

MAP-350: Private Piano Study VI **1 credit**

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. Prerequisite: Music Department approval and placement audition.

MAP-390^Ω: Junior Recital **0 credit**

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.

MAP-413: Private Piano Study Secondary Instrument VII **1 credit**

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.

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: 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: Music Department approval and placement audition.

MAP-450: Private Piano Study VII **1 credit**

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. Prerequisite: Music Department approval and placement audition.

MAP-451: Private Piano Study VIII **1 credit**

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. Prerequisite: Music Department approval and placement audition.

MAP-490^Ω: Senior Recital **0 credit**

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.

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-134: Applications of Algebra **4 credits**

This course explores applications of algebraic concepts. Integers, fractions, decimals, percents, and ratios are studied within the real and complex number systems. Students learn to solve linear equations and inequalities; rational and exponential expressions; linear systems; and quadratic, exponential, and logarithmic equations. Estimation techniques and principles of number theory are explored. Emphasis is placed on developing students' understanding of number representation and skill in the application of numerical operations to solving real-world problems. Prerequisite: Grade of C or better in MAT-110.

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-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. Prerequisites: Grade of C or better in MAT-134, MAT-144, or MAT-154.

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

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

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-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. Prerequisites: MAT-250.

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-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-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-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; vectors 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.

MAT-260: College Geometry 4 credits

This course is an introduction to Euclidean geometry and mathematical proofs, including theorems and proofs, set theory, logic, congruent and similar polygons, circles, geometric constructions, areas, volumes, geometric loci, elementary logic, and deductive reasoning. Prerequisite: Grade of C or better in MAT-134, MAT-144 or MAT-154.

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. Prerequisites: 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

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

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. Prerequisites: Grade of C or better in MAT-134, MAT-144 or MAT-154.

MAT-312^Δ: 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 **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 Sciences **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. Prerequisites: MAT-250 or exam placement.

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-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^Δ: 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-374: Calculus Based Probability and Statistics **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. Prerequisites: MAT-264.

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 Common Core Standards. Practicum/field experience hours: 15. Prerequisites: Fingerprint Clearance.

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.

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.

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. Prerequisite: MAT-253.

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

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-254.

Brass Instruments (MBE)

MBE-113: Private Applied Instruction Secondary I **1 credit**

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 credit**

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-125: Private Applied Instruction II **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-213: Private Applied Instruction Secondary III **1 credit**

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-215: Private Applied Instruction III **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-223: Private Applied Instruction Secondary IV **1 credit**

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-225: Private Applied Instruction IV **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-313: Private Applied Instruction Secondary V **1 credit**

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-315: Private Applied Instruction V **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-323: Private Applied Instruction Secondary VI **1 credit**

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-325: Private Applied Instruction VI **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-390^Ω: Junior Recital **0 credit**

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..

MBE-413: Private Applied Instruction Secondary VII **1 credit**

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-415: Private Applied Instruction VII **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-423: Private Applied Instruction Secondary VIII **1 credit**

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-425: Private Applied Instruction VIII **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-490^Ω: Senior Recital **0 credit**

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.

Music Education (MED)

MED-003: Music Educator's National Conference **0 credit**

The Music Educator's National Conference Collegiate Membership gives the students an opportunity for professional development while still in school. It is expected the benefits will accrue both to the students and to the professional organization as the students gain an understanding of the practices of the professional music educator.

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

MED-200: Instrumental Techniques: Low Brass 1 credit

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 credit

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 credit

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-205: Instrumental Techniques: High Brass 1 credit

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 credit

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 credit

This course is a practical study of flute and double reed instruments in which students learn to play, care for, and teach each instrument.

MED-220: Marching Band Techniques 1 credit

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 credit

This course is a practical study of percussion instruments in which students learn to play, care for, and teach each instrument.

MED-232: Woodwind Instrument Class 1 credit

A practical study of the high and low woodwind instruments. The student learns to play, care for, and teach each instrument. Prerequisite: Sophomore status.

MED-241: Brass Instrument Class 1 credit

A practical study of the high and low brass instruments. The student learns to play, care for and teach each instrument. Prerequisite: Sophomore status.

MED-251: Percussion Instrument Class 1 credit

Same format as MED-241, except pertaining to percussion instruments. Prerequisite: Sophomore status.

MED-252: String Instrument Class 1 credit

A practical study of the high and low string instruments. The student learns to play, care for, and teach each instrument. Prerequisite: Sophomore status.

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. Prerequisites: Fingerprint Clearance.

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 hours: 10. Prerequisites: Fingerprint Clearance; MUS-351 and MUS-351L or MUS-275 or Music Department approval.

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, Dalcrose, 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 hours: 25. Prerequisites: Fingerprint Clearance; MUS-351 and MUS-351L or MUS-275 or Music Department approval.

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 hours: 25. Prerequisites: Fingerprint Clearance.

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-480^Q: 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.

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

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. Prerequisites: CHM-115, CHM-115L, PHY-122, PHY-122L. Co-requisite: MEE-340L

MEE-340L: Structure and Property of Materials Lab 3 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. Prerequisites: CHM-115, CHM-115L, PHY-122, PHY-122L. Co-requisite: MEE-340.

MEE-352: Solid Mechanics & Lab 4 credits

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-360.

MEE-460: Mechanical Instrumentation and Devices & Lab 4 credits

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

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.

MEE-472: Principles of Mechanical Design II 2 credits

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: MEE-471.

Music Ensemble (MEN)

MEN-111: Canyon Singers 1 credit

A vocal ensemble open to all students at Grand Canyon University with the conductor's approval. Choral literature from all stylistic periods will be performed. This ensemble is designed to provide a quality performance experience for music majors and non-majors alike. Strong emphasis is placed on individual commitment to the ensemble.

MEN-120: Gospel Choir 1 credit

Every semester. Vocal ensemble drawn from the student body. Music includes a broad range of Christian Gospel literature. Strong emphasis is placed on individual commitment to the ensemble. Performances required. Does not fulfill General Education Fine Arts requirement.

MEN-305: Musical Theater Workshop 0 credit

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 credit

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

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

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 credit**

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 credit**

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.

MEN-314: Canyon Singers **0 credit**

This auditioned chamber-sized ensemble is geared towards music majors and those with significant choral experience. Its repertory 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 credit**

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. Prerequisite: Music Department approval and placement audition.

MEN-318^Ω: Collaborative Music Ensemble **0 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 repertory. 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 credit**

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 repertory. 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 credit**

The String Ensemble is comprised of music majors, minors, and students from other disciplines. Musicians are provided an

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

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. Prerequisite: Music Department approval and placement audition.

MEN-340A: String Chamber Ensemble **0 credit**

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 repertory. 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 credit**

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. Prerequisite: Music Department approval and placement audition.

MEN-340C: Piano Ensemble **0 credit**

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. Prerequisite: Music Department approval and placement audition.

MEN-348: Jazz Band **0 credit**

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

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. Prerequisites: 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 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- 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

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

MET-415: Tooling Design & Lab **4 credits**

This course examines the principles of tooling design. Topics to be covered will include jig and fixture design along with tooling assembly methods, materials used, and bending/forming allowances. Prerequisites: PHY-111, PHY-111L, and MET-203

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. Prerequisites: PHY-111 and PHY-111L

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. Assessment and treatment of couples and families are 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 nontraditional family systems including multiracial families, blended/step families, same-sex relationships and families, single-parent families, adoptive, foster, transitional families, and separated families.

MFT-621: Couples and Family Dynamics: Systemic Perspectives **3 credits**

This course examines the historical and theoretical perspectives of couples and family dynamics, including dating, premarital therapy, marriage, changes in the parental relationships across the lifespan, and divorce. This course examines the development of problems within the family of origin; it addresses the dynamics of the parent/child relationship. Topics include divorce, domestic violence, and family reunification, including integration of returning veterans. Skills and techniques relevant to couples, premarital counseling, divorce counseling, family therapy, group therapy, and parenting 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-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. Also PSC-420.

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: MGT-420. Also AMP-434.

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. Also 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-630^Ω: Leading Self **3 credits**

This course is designed to prepare EMBA students as they strengthen important leadership skills and develop a personal leadership vision. The course combines knowledge and application by examining the results of leadership research and how it can be used to develop a clear sense of purpose of leadership, increase leadership communication skills, and deepen awareness of personal leadership styles. Case studies, discussions, exercises, guest speakers, and videos are used to address the challenges of leadership. The disciplines covered in this course include leadership, visioning, emotional and cultural intelligence, and communications.

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

MGT-635^Ω: Leveraging Human Capital **3 credits**

This course presents the perspective that management of human capital is the responsibility of every manager/leader throughout the organization. Talent management, succession planning, employee development and motivation, and performance management and metrics are examined. Additional topics include workforce diversity, contracting within the global 21st century environment, and the challenges inherent in virtual and cross-functional teams. Methods for building and sustaining human capacity and knowledge assets to increase corporate value are examined.

MGT-636^Ω: Leading Others **3 credits**

This course provides the structure and direction for teams to remain focused on a common goal to achieve a common result. Using research-validated evaluation methods, the course documents how to accomplish the team's purpose by creating buy-in and increasing commitment for task accomplishment. The concepts and methods of promoting partnership and trust among team members are explored and a solid foundation for building high-performing teams is constructed. The concept of servant leadership is also explored through the study of role models throughout history and today.

MGT-639^Ω: Strategic Advantage Within the Global Economy **3 credits**

This course examines the global competitive landscape in which firms operate. An examination of CEOs and how they have successfully seized growth opportunities in unexpected ways provides an actuarial perspective. The international political and economic environment is also examined to ensure familiarity with larger scale shifts occurring within the global economy that impact growth strategies.

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. Prerequisites: MGT-655 and BUS-660.

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-642^Ω: Leading Organizations **3 credits**

This course focuses on transformational leadership and the themes of organizational culture and leading change. Transformational leaders must be able to grasp the need for change and effectively define and communicate that change to their stakeholder groups. This course examines how and why change efforts get derailed, why people resist change, and how leaders can overcome these challenges. Specifically, the real-life lessons learned by a number of CEOs are examined and discussed. The course also introduces strategies on how to build and sustain a resilient corporate culture that thrives on change and supports the ongoing implementation of change efforts.

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.

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.

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.

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

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

models, this course will explore how analytics can be used for competitive advantage.

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.

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

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

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.

Percussion Instruments (MIE)

MIE-113: Private Applied Instruction Secondary I 1 credit

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 includes private instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MIE-123: Private Applied Instruction Secondary II 1 credit

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-125: Private Applied Instruction II 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.

MIE-213: Private Applied Instruction Secondary III 1 credit

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-215: Private Applied Instruction III 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.

MIE-223: Private Applied Instruction Secondary IV 1 credit

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-225: Private Applied Instruction IV 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.

MIE-313: Private Applied Instruction Secondary V 1 credit

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-315: Private Applied Instruction V 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.

MIE-323: Private Applied Instruction Secondary VI 1 credit

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.

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

MIE-325: Private Applied Instruction VI **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.

MIE-390^Ω: Junior Recital **0 credit**

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.

MIE-413: Private Applied Instruction Secondary VII **1 credit**

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-415: Private Applied Instruction VII **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.

MIE-423: Private Applied Instruction Secondary VIII **1 credit**

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-425: Private Applied Instruction VIII **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.

MIE-490: Senior Recital **0 credit**

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.

Christian Studies (MIN)

MIN-320: Christian Character Formation **4 credit**

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^A: 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-104 and BIB-105.

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-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-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-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.

MIN-525: 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.

MIN-530: Youth Issues and 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-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 taught in residency. Prerequisites: BIB-611 and BIB-620.

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-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.

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

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.

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 to continue developing components of their research prospectus.

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.

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.

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.

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.

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.

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

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-345: Buyer and Consumer Behavior **4 credits**

This course focuses on a behavioral science approach that studies distinct buyer strategies and decision-making processes of purchase by organizational buyers and consumers. Topics include cross-cultural variations in behavior, external and internal influences on today's buyers, purchase and post-purchase processes, customer satisfaction, and customer commitment.

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: MKT-301 or MKT-245.

MKT-415: Promotion and Advertising **4 credits**

This course provides an integrated marketing communications perspective for today's changing world. Topics include the promotional mix, determining and developing advertising and promotional objectives, ethical issues in advertising campaigns, budgeting, positioning, creative strategies, media strategies, services advertising strategies, personal selling, e-marketing, public relations, publicity, corporate advertising, and evaluating the promotional program.

MKT-445: Marketing Research and Reporting **4 credits**

This course is an introduction to business research processes and the research documents used as tools to aid in managerial decision making. Topics include designing research projects, collecting primary and secondary data, conducting ethical research, applying statistical tools and measurement techniques, developing a marketing plan, and reporting the research in both written and oral presentation formats.

MKT-450: Marketing Management **4 credits**

This course provides a manager's view of applying the marketing mix in today's and tomorrow's business worlds, using various approaches and tools for analyzing marketing opportunities, integrating traditional and new techniques in promotion and pricing, managing the marketing concept, developing marketing plans, and controlling marketing activities. Prerequisite: MKT-245.

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.

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.

MKT-631^Ω: Customer Value and Service Excellence **3 credits**

The course is designed to focus on what customers really want, building customer loyalty, and becoming a service excellence leader. Insights are drawn from various fields, including management, innovation, information technology, and cross-cultural communications. The service profit chain provides a framework for linking employee engagement with customer satisfaction and retention.

MKT-632^Ω: Solutions-Based Relationship Management and Branding **3 credits**

The course examines the role of corporate brands in creating a competitive advantage and focuses on the critical issues facing senior leaders today, including measuring marketing performance, managing customer information, building cross-cultural customer relationships, and leveraging the Internet.

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.

Music Piano Class (MPC)

MPC-109: Class Piano I **1 credit**

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 credit**

This course is a continuation of MPC-109. It includes passing Part II of the Piano Proficiency Examination. Prerequisite: MPC-109.

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

MPC-359: Class Piano III **1 credit**

This course is a continuation of MPC-259. It includes passing Part III of the Piano Proficiency Examination. Prerequisite: MPC-259.

MPC-459: Class Piano IV **1 credit**

This course is a continuation of MPC-359. It includes passing Part IV of the Piano Proficiency Examination. Prerequisite: MPC-359.

String Instruments (MSE)

MSE-113: Private Applied Instruction Secondary I **1 credit**

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.

MSE-115: Private Applied Instruction Major I **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-123: Private Applied Instruction Secondary II **1 credit**

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.

MSE-125: Private Applied Instruction Major II **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-213: Private Applied Instruction Secondary III **1 credit**

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.

MSE-215: Private Applied Instruction Major III **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-223: Private Applied Instruction Secondary IV **1 credit**

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.

MSE-225: Private Applied Instruction Major IV **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-313: Private Applied Instruction Secondary V **1 credit**

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.

MSE-315: Private Applied Instruction Major V **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-323: Private Applied Instruction Secondary VI **1 credit**

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.

MSE-325: Private Applied Instruction Major VI **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-390^Ω: Junior Recital **0 credit**

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.

MSE-413: Private Applied Instruction Secondary VII **1 credit**

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.

MSE-415: Private Applied Instruction Major VII **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-423: Private Applied Instruction Secondary VIII **1 credit**

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.

MSE-425: Private Applied Instruction Major VIII **2 credits**

This course includes instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

MSE-490: Senior Recital **0 credit**

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.

Military Science Leadership (MSL)

MSL-101: Introduction to Leadership and Personal Development **3 credits**

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-

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

hour lab of practical application, and one 2-day field training exercise.

MSL-102: Introduction to Tactical Development 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-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.

MSL-202: Foundations of Tactical Leadership 3 credits

Every Spring. This course examines the challenges of leading tactical teams in the complex Contemporary Operating Environment (COE). The course highlights dimensions terrain analysis, patrolling, and operation orders. Further study of the theoretical basis of the Army Leadership Requirements Model explores the dynamics of adaptive leadership in the context of military operations. Students develop greater self-awareness as they assess their own leadership styles and practice communication and team-building skills. Case studies from the contemporary operating environment (COE) provide insight into the importance and practice of teamwork and tactics in real-world scenarios. The course includes 3 hours of lecture/conference, one 2-hour lab of practical application, and one 2-day field training exercise.

MSL-301: Adaptive Team Leadership 3 credits

This course covers topics of immediate or special interest to an instructor and students. Must attend at the ASU Campus, Wednesdays, 5-8 p.m. Prerequisite: Instructor approval.

MSL-302: Applied Team Leadership 3 credits

A continuation of MSL-301, this course integrates the principles and practices of effective leadership, military operations, and personal development in preparation for the summer Leader Development and Assessment Course (LDAC). Students become capable of planning, coordinating, navigating, motivating, and leading teams in situational training exercises. 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 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-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-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.

Music (MUS)

MUS-111: Diction: Italian 1 credit

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.

MUS-112: Diction: French 1 credit

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.

MUS-125: Music Theory I 4 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. Prerequisite: Theory Placement Examination.

MUS-130: Music Theory I 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.

MUS-130L: Music Theory I Lab (Aural Skills and Musicianship) 1 credit

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

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emphasized. The music of the “common practice period” will be studied. Co-requisite: MUS-130.

MUS-155: Music Theory II **4 credits**

This course emphasizes skill development through analysis and composition. Prerequisite: MUS-125.

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 credit**

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-211: Diction: German **1 credit**

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-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-260: Music Theory III **4 credits**

This course emphasizes advanced rhythmic, melodic, and harmonic dictation; basic keyboard performance; and sight singing. Computer-assisted ear training is utilized. Music examples are selected from Bach through Wagner. This course also includes an advanced study in analysis and part writing utilizing modulation and chromatic harmony. Prerequisite: MUS-155.

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 **1 credit**

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-275: Music Theory IV **4 credits**

This course emphasizes ear training material and includes music from the 20th century. It also includes an analysis and composition of music of the late 19th through the 20th century. Prerequisite: MUS-260.

MUS-310^A: Choral Literature for Music Educators **2 credits**

This writing intensive 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-311: Advanced Diction: Italian **1 credit**

An advanced 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.

MUS-313: Advanced Diction: French **1 credit**

An advanced 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-311 or Music Department approval.

MUS-314: Advanced Diction: German **1 credit**

An advanced 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-311 or Music Department approval.

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^A: Band Literature for Music Educators **2 credits**

This writing intensive 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.

MUS-330: Foundations of Music and Culture for Diverse Learners **4 credits**

Students study the historical, philosophical, and sociological influences which have shaped music, ethnomusicology, music education, and the issues faced by educators today, as well as the challenges of the future which await people 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, transition; and basic curriculum accommodations and supportive services for teaching students with special needs in the music classroom. Practicum/field experience hours: 15. Prerequisites: Fingerprint Clearance.

MUS-331: Choral 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

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

prevailing choral philosophies, including performance techniques, score preparation, rehearsal techniques, programming, and administration of the choral program.

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 credit**

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-360^W: 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^W: 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^W: Piano Literature I **2 credits**

This writing intensive course is a survey of baroque and classical periods. Emphasis is on learning the standard piano repertoire through reading and listening assignments. Prerequisite: MUS-369 or Music Department approval.

MUS-375^W: Song Literature I **2 credits**

This writing intensive course is a survey study of the composers, their styles, and literature from the beginning of solo song through the early romantic period. Prerequisite: MUS-369 or Music Department approval.

MUS-376^W: Song Literature II **2 credits**

This writing intensive 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. Prerequisite: MUS-375 or Music Department approval.

MUS-377^W: Piano Literature II **2 credits**

This writing intensive course is a survey of romantic and contemporary periods. Emphasis is on learning the standard piano repertoire through reading and listening assignments. Prerequisite: MUS-369 or Music Department approval.

MUS-378^W: Chamber Music Literature **2 credits**

This writing intensive course is a survey of chamber music literature. Emphasis is on learning the standard repertoire through reading and listening assignments. Prerequisite: MUS-369 or Music Department approval.

MUS-379^W: Symphonic Literature **2 credits**

This writing intensive course is a survey of symphonic literature. Emphasis is on learning the standard repertoire through reading and listening assignments. Prerequisite MUS-369 or Music Department approval.

MUS-380: Counterpoint **4 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. Prerequisite: MUS-275.

MUS-390^W: Form and Analysis **4 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. Prerequisite: MUS-275.

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-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. Prerequisite: MUS-351 and MUS-351L or MUS-275.

MUS-406: Jazz Techniques **2 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

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

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-450^Δ: Conducting **4 credits**

This course is a study of the fundamentals and techniques of conducting. Special emphasis is placed on conducting choral music and the special techniques required to conduct vocal groups. Prerequisite: MUS-390.

MUS-451^Δ: 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^Δ: 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-455: Vocal Pedagogy **2 credits**

This course is a study of skills for the teaching of voice to individuals or groups. The physical voice is studied, potential vocal problems are analyzed, and historical methods of correction are presented. Prerequisite: Advanced Standing approval or Music Department approval.

Music Applied Voice (MVA)

MVA-119: Private Voice Study I **1 credit**

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. Prerequisite: Instructor's approval.

MVA-129: Private Voice Study II **1 credit**

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-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. Prerequisite: Instructor's approval.

MVA-219: Private Voice Study III **1 credit**

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-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. Prerequisite: Instructor's approval.

MVA-229: Private Voice Study IV **1 credit**

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-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. Prerequisite: Instructor's approval.

MVA-319: Private Voice Study V **1 credit**

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-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. Prerequisite: Instructor's approval.

MVA-329: Private Voice Study VI **1 credit**

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-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. Prerequisite: Instructor's approval.

MVA-390^Ω: Junior Recital **0 credit**

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.

MVA-419: Private Voice Study VII **1 credit**

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-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. Prerequisite: Instructor's approval.

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

MVA-429: Private Voice Study VIII **1 credit**

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-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. Prerequisite: Instructor's approval.

MVA-490^Ω: Senior Recital **0 credit**

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.

Music Voice Class (MVC)

MVC-109: Class Voice I **1 credit**

This course is designed as class instruction for students with limited or no previous voice training. Instruction includes the study of vocal technique and literature designed to pass Part I of the Voice Proficiency Examination. The voice proficiency requirements are identified in the music handbook.

MVC-259: Class Voice II **1 credit**

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 credit**

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 credit**

This course is a continuation of MVC-359. It includes passing Part IV of the Voice Proficiency Examination. Prerequisite: MVC-359.

Woodwind Instruments (MWE)

**MWE-113: Private Applied Instruction
Secondary I** **1 credit**

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 includes private instruction in the major instrument. Emphasis is on advanced technique and literature. Prerequisites: Music Department approval and placement audition.

**MWE-123: Private Applied Instruction
Secondary II** **1 credit**

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-125: Private Applied Instruction II **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.

**MWE-213: Private Applied Instruction
Secondary III** **1 credit**

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-215: Private Applied Instruction III **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.

**MWE-223: Private Applied Instruction
Secondary IV** **1 credit**

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-225: Private Applied Instruction IV **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.

**MWE-313: Private Applied Instruction
Secondary V** **1 credit**

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-315: Private Applied Instruction V **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.

**MWE-323: Private Applied Instruction
Secondary VI** **1 credit**

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-325: Private Applied Instruction VI **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.

MWE-390^Ω: Junior Recital **0 credit**

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.

**MWE-413: Private Applied Instruction
Secondary VII** **1 credit**

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.

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

MWE-415: Private Applied Instruction VII 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.

MWE-423: Private Applied Instruction Secondary VIII 1 credit

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-425: Private Applied Instruction VIII 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.

MWE-490: Senior Recital 0 credit

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.

Nursing (NRS)

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-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-430V^Ω: 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. Emphasis is also placed on writing and oral presentation skills.

NRS-433V^Δ: 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-434V: Health Assessment 3 credits

This course focuses on methods of health history taking, physical examination skills, documentation, and health screening. The course emphasizes the individual as the client, functional health patterns, community resources, and the teaching learning process.

NRS-434VN: Health Assessment 3 credits

This course focuses on methods of health history taking, physical examination skills, documentation, and health screening. The course emphasizes the individual as the client, functional health patterns, community resources, and the teaching learning process.

NRS-437V: Ethical Decision Making in Health Care 3 credits

This course is a general introduction to the field of biomedical ethics. Students study the application of ethics and moral theories to concepts and issues arising in the health care professions. The course provides students—both as consumers and providers—an opportunity to study ethical decision making, health care situations with implications for ethical decision making, and analysis of ethical behavior of individuals involved in health care. Topics include exploration of major ethical theories and principles, informed consent, confidentiality, and ethical implications of selected issues such as abortion, euthanasia, assisted suicide, and allocation of scarce resources.

NRS-440V: Trends and Issues in 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.

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

NRS-440VN: Trends and Issues in 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-441V^Ω: Professional Capstone 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-451V: 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-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: 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. Practice immersion hours: 100. Prerequisites: NRS-430V, NRS-429V, NRS-434V, NRS-427V, NRS-433V, PHI-413V, NRS-451V, NRS-410V, and NRS-490V.

Nursing (NSG)

NSG-301[†]: Nursing Foundations 4 credits

This foundational course provides an understanding of the unique societal roles of the professional nurse both locally and globally. This course examines the historical roots of nursing along with current theories and the value of evidence-based practice to the future of health care. Focus is given to ethical and legal standards of the nursing profession. Also addressed are concepts of health, wellness, and human development across the life span. Current

standards of nursing practice are introduced as a framework for the nursing program. Prerequisite: Admission into the nursing program.

NSG-303: Therapeutic Communication and Informatics 4 credits

The purpose of the course is to provide students with an understanding of effective communication and the role of information technology in promoting patient-centered care, managing knowledge in diverse settings, diminishing the risk for error, and supporting decision making through analysis of relevant data. Attention is given to therapeutic communication, information management, health care technology, and the use of data. The course improves interpersonal communication, technical skills, and their relationship to client outcomes. The role of the nurse in regards to effective communication with other members of the health care team is addressed. Students need basic interpersonal and computer skills before enrolling in this course. Prerequisite: Admission into the nursing program.

NSG-305: Health Assessment 4 credits

This course provides the systematic collection, validation, and communication framework for data that professional nurses use to make decisions about how to intervene, promote, maintain, or restore the health of clients. It emphasizes methods of data collection, clinical reasoning, and the nursing process, along with supervised laboratory practice and selected diagnostic and screening tests. Upon completion, students demonstrate beginning knowledge and competence in the performance of health history taking and physical assessment across the life span based on current standards of nursing practice. Prerequisite: Admission into the nursing program.

NSG-307: Introduction to Pharmacology 4 credits

This course has a twofold purpose, the first of which is to explore pharmacokinetics and pharmacodynamics of common drug classifications and their prototypes within a physiological and pathophysiological base. Physiological, psychological, developmental, legal, and sociocultural concepts related to drug therapy are presented. The second purpose of the course is to provide the pharmacological foundation necessary for safe administration of drugs, including medication math and medication administration skills, monitoring the effects of therapy, and teaching clients about medications. Prerequisites: Admission into the nursing program.

NSG-321^Ω: Nursing Practice: Theory 5 credits

This course emphasizes nursing interventions for the client experiencing a variety of alterations in health and comorbidities, using physiological concepts and functional health patterns. Students plan and prioritize nursing care based on assessments and diagnostic data for clients with various social and cultural backgrounds across the lifespan. The course continues to develop the professional role, clinical reasoning, the concept of caring, and competence in current standards of nursing practice as the holistic foundational framework. Health promotion, health risks, and safety issues are reinforced with emphasis on preventable complications. Prerequisite: NSG-301, NSG-303, NSG-305, and NSG-307. Co-requisite: NSG-321C.

NSG-321C^Ω: Nursing Practice: Clinical 5 credits

This course incorporates current standards of nursing practice in the clinical and simulated settings. The student plans and prioritizes nursing care based on assessments and diagnostic data for clients with various social and cultural backgrounds across

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the lifespan. Prerequisite: NSG-301, NSG-303, NSG-305, and NSG-307. Co-requisite: NSG-321.

NSG-323^Ω: Psychiatric Mental Health Nursing: Theory **2 credits**

This course is focused on utilizing the nursing process in providing psychiatric mental health nursing care in various psychiatric settings with individuals, families, and community groups across the lifespan. Emphasis is placed on therapeutic communications and therapeutic use of self in providing safe nursing care. Concepts of environment, group process, family therapy, interdisciplinary collaboration, and affective skills are integrated with the biopsychosocial, spiritual, and cultural aspects of psychiatric mental health nursing practice. Prerequisite: NSG-301, NSG-303, NSG-305, and NSG-307. Co-requisite: NSG-323C.

NSG-323C^Ω: Psychiatric Mental Health Nursing: Clinical **2 credits**

This clinical experience applies theoretical psychiatric mental health concepts to the care of patients from various sociocultural backgrounds across the lifespan. Students develop skills of collaboration, accountability, and clinical judgment. Students develop and maintain a safe, therapeutic patient care environment. Prerequisite: NSG-301, NSG-303, NSG-305, and NSG-307. Co-requisite: NSG-323.

NSG-325^{ΔΩ}: Evidence-Based Practice **3 credits**

This writing intensive course provides the use of research findings as a basis for improving clinical practice. The student is introduced to the research process and various research methodologies using qualitative and quantitative data. This course builds on the foundation and steps of evidence-based practice. The PICOT format is used to promote a spirit of inquiry in guiding students when formulating clinical questions. To answer a clinical question, the focus is on differentiating kinds/levels of evidence and identifying appropriate databases to obtain the best evidence for practice. Evidence is critically appraised to determine application to clinical practice. Ethical implications in regards to patients' rights, preferences, and values are considered. Strategies for implementation, methods of evaluation, and dissemination of evidenced outcomes are discussed to ensure integration of best nursing practice. Prerequisite: NSG-301 and NSG-303.

NSG-401^Ω: Family-Centered Nursing: Theory **3 credits**

This course examines a variety of theoretical perspectives with an emphasis on family theory from conception through childbearing. Students gain a broader understanding of health promotion and screening, client education, illness and injury prevention, cultural practices, and holistic care in specific populations such as newborns, children, adolescents, childbearing women, and families. Topics include nursing care of the childbearing family and the well child, as well as the acute and chronically ill pediatric and adolescent population and family. Students acquire an understanding of socioeconomic status, educational level, culture, environmental factors, epidemiological issues, and the impact on various populations. This course enhances critical analysis and uses current standards of nursing practice as a framework for assessment to plan nursing care. Prerequisite: NSG-321, NSG-321C, NSG-323, NSG-323C. Co-requisite: NSG-401C.

NSG-401C^Ω: Family-Centered Nursing: Clinical **3 credits**

This course focuses on application of nursing principles related to health promotion and screening, client education, illness and injury prevention, cultural practices, and holistic care in specific populations such as newborns, children, adolescents, childbearing women, and families. Family theory content, pertinent to the clinical site, is applied in a variety of acute care, community, and simulated settings. Using a holistic approach, students implement nursing care including wellness, acute, and chronic care for the above populations in a variety of settings. Prerequisite: NSG-321, NSG-321C, NSG-323, NSG-323C. Co-requisite: NSG-401.

NSG-403^Ω: Community Nursing: Theory **3 credits**

Students examine public health theory, community-oriented concepts, and community-based principles to provide nursing care for individuals, families, specific aggregates, and communities. The students gain a broader understanding of health promotion and disease prevention, client education, advocacy, ethical issues, environmental impact, safety concerns, holistic care, socioeconomic factors, and cultural sensitivity. This course addresses health coaching, chronic disease management, transitional care, rehabilitation, caregiver role strain, care coordination, and palliative/end-of-life care across the lifespan in a variety of community and home settings. Topics also include disaster management and public and private health policy. This course uses current standards of nursing practice to enhance critical analysis and use of epidemiological data. Prerequisite: NSG-321, NSG-321C, NSG-323, NSG-323C. Co-requisite: NSG-403C.

NSG-403C^Ω: Community Nursing: Clinical **3 credits**

This course focuses on application of nursing principles related to health promotion and disease prevention, client education, advocacy, ethical issues, environmental impact, safety concerns, holistic care, socioeconomic factors, and cultural sensitivity for individuals, families, specific aggregates, and communities. Community theory content, pertinent to the clinical site, is applied across the lifespan in a variety of community, home, and simulated settings. Using a holistic approach, students implement wellness, acute, chronic, and end-of-life nursing care in a variety of settings. Prerequisite: NSG-321, NSG-321C, NSG-323, NSG-323C. Co-requisite: NSG-403.

NSG-421^Ω: Transition to Professional Nursing Practice: Theory **6 credits**

This course is designed as a culminating experience in the professional role development of the student nurse. Emphasis is on integrating qualities of accountability, advocacy, integrity, lifelong learning, clinical reasoning, competence, caring, and compassion, towards building confidence as the student transitions into the role of the novice nurse. The interdisciplinary approach to the safe and ethical management of quality patient-centered care across the lifespan is stressed while other topics include economic, legal, political, and social issues impacting health care. Opportunities are provided to synthesize theory, clinical practice, leadership, and management concepts. This course continues to develop the professional role, clinical reasoning, concept of caring, and competence in nursing skills using current standards of nursing practice as the holistic foundational framework. Health promotion/disease prevention, health risks, and safety concepts are mastered with emphasis on complex health issues. Clients with complex health problems and multiple comorbidities are managed using a case study approach.

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

Prerequisite: NSG-401, NSG-401C, NSG-403, and NSG-403C.
Co-requisite: NSG-421C.

NSG-421C^Ω: Transition to Professional Nursing Practice: Clinical **6 credits**

This course is designed as a culminating experience in the professional clinical development of the student nurse incorporating current standards of nursing practice. Emphasis is on applying evidenced-based practice in the clinical setting. The student assumes responsibility for delegating, evaluating, planning, and supervising culturally sensitive nursing care in diverse environments. Clients with complex health issues and multiple comorbidities are assessed and cared for in simulated and actual clinical settings. The student builds confidence and develops competence while practicing safe, quality, patient-centered holistic care across the lifespan. Students analyze the assessment findings for management of patient care outcomes. Students use increasingly higher levels of clinical reasoning in patient-centered care. Prerequisite: NSG-401, NSG-401C, NSG-403, and NSG-403C. Co-requisite: NSG-421.

NSG-423^Ω: Evidence-Based Capstone Project **2 credits**

This writing intensive course provides the learner with a means to synthesize skills and resources gained while in the nursing program. The use of evidence-based practice to improve clinical practice is discussed and a change project is proposed. Creating a capstone change project provides the student with opportunities to master the skills to assess, implement, evaluate, and integrate evidence-based practice to be an effective change agent in nursing practice. Prerequisites: NSG-325, NSG-401, NSG-401C, NSG-403 and NSG-403C.

Nursing (NUR)

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-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-632: Advanced Pharmacology for Primary Care **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; principles of pediatric and geriatric pharmacotherapy; clinical toxicology; and pathology and pharmacotherapy of cardiovascular, psychiatric, endocrine, respiratory, gastrointestinal, bone and joint, infectious, reproductive, and dermatological disorders. Prerequisite: NUR-631.

NUR-633: Advanced Pharmacology for Acute Care **4 credits**

This course focuses on the advanced pharmacology and therapeutic principles needed for the adult-gerontology acute care nurse practitioner (ACNP-AG) and the adult-gerontology clinical nurse specialist (CNS-AG) to safely prescribe medication therapy. Pharmacokinetic and pharmacodynamic principles of drug action are emphasized, with a focus on prescribing in a diverse patient population. Appropriate monitoring for efficacy and toxicity of prescribed therapies is highlighted. Evidence-based trials and clinical guidelines provide the basis for selecting safe, effective, and cost-efficient pharmacotherapeutic regimens for all patients. Appropriate patient education regarding prescription and nonprescription therapies is incorporated. This course covers principles of drug action, treatment of endocrine, cardiovascular disorders, gastrointestinal disorders, neurological, infectious diseases, and respiratory disorders. In addition, pain management, the patient in the intensive care unit, toxicology, medication error prevention, and medication management during transitions of care are addressed. Prerequisite: NUR-631.

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

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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 or NUR-633.

NUR-636^Ω: ACNP-AG Didactic I **3 credits**

This course focuses on evidenced-based theory and research related to adult-gerontology patients experiencing acute illnesses. Students synthesize data from a variety of health resources related to the care of the acutely ill adult-gerontology patient. Concepts involving Clinical Practice Guidelines are introduced and evaluated. Students analyze common problems seen in the acute care setting as they relate to the development of a prioritized differential diagnosis list. Students focus on ways to make clinical judgments and decisions regarding appropriate recommendations and treatments related to acute alterations in health. Prerequisites: NUR-631, NUR-633, and NUR-634. Co-requisite: NUR-636C.

NUR-636C^Ω: 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-637^Ω: ACNP-AG Didactic II **4 credits**

This course continues the focus on evidenced-based theory and research related to acute illnesses in the adult-gerontology population in the acute care setting. 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 work on clinical judgment and decision making regarding appropriate recommendations and treatments related to alterations in different systems as they develop an evidence-based plan of care. Prerequisites: NUR-636 and NUR-636C. Co-requisite: NUR-637C.

NUR-637C^Ω: 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^Ω: 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.

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. Prerequisite: NUR-508.

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-646: Health Promotion in Advanced Practice Nursing **3 credits**

This course focuses on the advanced health promotion strategies of the nation's priority lifestyle concerns throughout the lifespan as presented in the Healthy People 2010 National Health Objectives. Detailed evidence-based health promotion information and services—such as age, development, lifestyle, geography location, spirituality and culture—are considered. Professional and client community resources and referrals are examined. Emphasis is placed on development of the advanced practice nurse-client relationship to enhance the effectiveness of client education and counseling to promote healthy lifestyle

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changes. The use of integrative healing (nonpharmacological) strategies in assisting clients to achieve goals of health promotion are introduced and evaluated based on evidence-based research. The course has a community-focused perspective, addressing roles in delivering care to improve the health of the entire community. Students consider the relationship between community/public health issues and social problems as they impact the health care of their clients. Prerequisite: NUR-640.

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-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-654: Diverse Application of Advanced Practice Concepts **3 credits**

This course presents practice concepts that blend the function of the clinical nurse specialist with the family nurse practitioner (FNP) role for a futuristic vision for integration of these roles to include assessing and addressing the needs of client populations and nursing personnel across the continuum of care. Management concepts include case management, teaching of professionals, program planning, evaluation, peer review, broad-based consultation, marketing, business management, resource management, cost-effective use of formularies, and payment for services, including processing insurance claims.

NUR-655^Ω: CNS I: Theoretical Foundations **6 credits**

This course focuses on the theories, conceptual models, and research that are the basis of the adult-gerontology CNS practice. Building on advanced practice nursing theory, students engage in discussion of theoretical and empirical knowledge of illness and wellness—both of disease and nondisease etiologies—from the three spheres of influence, particularly the patient/client sphere. Advanced health assessment, advanced pharmacology, and advanced physiology and pathology principles across the adult-gerontology continuum are integrated with developmental/life stage transitions, professional/legal issues, and spirituality concepts. Content includes (1) theoretical foundations of adult-gerontology CNS practice; (2) phenomena of nursing concern; (3) design and development of integrating health promotion for the adult-gerontology patient/client; (4) design and development of innovative nursing interventions; (5) clinical inquiry/critical thinking, using advanced knowledge; (6) consultation, teaching,

and coaching with focus on the individual/family/groups; (7) measurement and outcome evaluation, including cost-effectiveness and evidence-based research focused on the patient/client sphere; (8) examination of age-related genetics and genomics in terms of adult-gerontology patient/family-associated disorders. The clinical experience takes place in the student's chosen specialty area, providing experiences with a variety of adult-gerontology patients/clients and integrates the theoretical concepts covered in the didactic portion of the course. Clinical component: 3 clinical credits. Clinical hours: 150.

NUR-656: Diagnosis and Management of Acutely Ill Patients II **4 credits**

This course continues the focus on evidenced-based theory and research related to acute illnesses in the adult and geriatric population in the acute care-setting. 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 work on clinical judgment and decision making regarding appropriate recommendations and treatments related to alterations in different systems as they develop an evidence-based plan of care.

NUR-657^Ω: CNS II: Influence Change in Health Care Systems **6 credits**

This course focuses on the theories, conceptual models, and research that are the basis of the adult-gerontology CNS practice. Building on advanced practice nursing theory, students engage in discussion of theoretical and empirical knowledge of illness and wellness—both of disease and nondisease etiologies—from the three spheres of influence, particularly the patient/client and organization/system spheres. Advanced health assessment, advanced pharmacology, and advanced physiology and pathology principles across the adult-gerontology continuum are integrated with developmental/life-stage transitions, professional/legal issues, and spirituality concepts. Content includes (1) theoretical foundations of adult-gerontology CNS practice; (2) phenomena of nursing concern; (3) design and development of integrating health promotion for the adult-gerontology patient/client; (4) design and development of innovative nursing interventions; (5) clinical inquiry/critical thinking, using advanced knowledge; (6) consultation, teaching, and coaching with focus on the individual/family/groups; (7) measurement and outcome evaluation, including cost-effectiveness and evidence-based research focused on patient/client, nurses and nursing practice, and organization/system; (8) explanation of age-related genetics and genomics in terms of adult-gerontology patient/family-associated disorders. The clinical experience takes place in the student's chosen specialty area, providing experiences with a variety of adult-gerontology patients/clients, and integrates the theoretical concepts covered in the didactic portion of the course. Clinical component: 3 clinical credits. Clinical hours: 150. Prerequisite: NUR-655.

NUR-658: Scope of Practice, Documentation, and Billing **2 credits**

This course focuses on professional and legal issues related to advanced practice nursing and includes adult-gerontology acute care nurse practitioner (ACNP-AG) scope of practice, inpatient and outpatient documentation, and billing. Managing the adult-gerontology patient who is highly vulnerable to complications, physiologically unstable, technologically dependent during periods of transition, such as admitting, transferring, and discharging, is also covered. This course provides a review of concepts related to collegial practice, including interprofessional

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and intraprofessional relationships within the health care delivery system.

NUR-659: Diagnosis and Management of Acutely Ill Patients III **4 credits**

This course continues the focus on evidenced-based theory and research related to acute 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 the adult-gerontology patient. Prerequisite: NUR-656.

NUR-663^Ω: CNS Clinical Internship **4 credits**

A culminating practicum experience, completed in person with a preceptor, provides students with experiences in the three spheres of the adult-gerontology CNS practice: patient/client, nurses and nursing practice, and organization/system within a specialty area. This clinical practice affords students the opportunity to refine their clinical decision-making skills related to developmental, life-stage, wellness, and illness needs that may impact patient/clients and their significant others across the entire adult-gerontology age continuum. The practicum experience also provides students an opportunity to increase their understanding of those patient/client and family needs involved in transitioning to various care settings. Additionally, students develop the CNS roles of clinical expert, leader, collaborator, consultant, educator, researcher, and change agent, and explore how their professional attributes, ethical conduct, and professional citizenship are integrated in CNS practice to affect outcomes within the spheres. This course includes the application of core content specific to CNS practice introduced in previous courses. Online case study discussions analyzed by evidence-based practice guidelines are utilized with patient/client scenarios across the adult-gerontology age continuum. Clinical component: 4 clinical credits. Clinical hours: 200. Prerequisite: NUR-657.

NUR-664C^Ω: Advanced Practice Management of Geriatric Issues in Primary Care Clinical **1.5 credits**

The student will collaborate with faculty members to select a community-based, gerontological health-focused, clinical site for completion of 75 clinical hours. The clinical component for NUR-664T allows the student an opportunity to provide comprehensive health care to diverse clients in late age. Clinical hours are completed in person with a qualified preceptor (NP, DO, MD, DNM) and serve as the opportunity to demonstrate clinical skills, learn clinical decision-making skills, and learn the role of the advanced practice nurse in collaboration with experienced preceptors who serve as mentors. The clinical component of each course is accomplished during the same semester as the corresponding didactic course and is graded as Pass/Fail. Failure of a clinical course constitutes failure of the corresponding didactic course. Prerequisite: NUR-675. Co-requisite: NUR-664T.

NUR-664T^Ω: Advanced Practice Management of Geriatric Issues in Primary Care **1.5 credits**

This course focuses on the three levels of prevention and comprehensive primary care management of geriatric health care problems of individuals and their families within a culturally and spiritually diverse environment. Advanced health assessment, advanced pharmacology, and advanced physiology and

pathophysiology principles are integrated with spirituality concepts and advanced nursing theory. Evidence-based research is utilized to develop comprehensive, cost-effective, least invasive, quality health care for geriatric clients. Care will include health promotion counseling, client education, and appropriate screening to optimize the client's health. Emphasis is placed on critical thinking and diagnostic reasoning to guide clinical decision making. Management of client illness includes ordering diagnostic tests, prescribing pharmacologic and nonpharmacologic integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Prerequisite: NUR-675. Co-requisite: NUR-664C.

NUR-665E^Ω: 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. Prerequisite: NUR-649E. This course may be taken concurrently with NUR-699.

NUR-667^Ω: Advanced Practice Management of Women's Health Issues in Primary Care **1.5 credits**

This course focuses on the three levels of prevention and comprehensive primary care management of women's health care issues (including care of the pregnant patient) for individuals and their families within a culturally and spiritually diverse environment, contextually within the health care delivery system. Advanced health assessment, advanced pharmacology, spirituality, and advanced physiology and pathophysiology principles are integrated with advanced nursing theory. Evidence-based research is utilized to develop comprehensive, cost-effective, least invasive, quality health care for women. Care includes health promotion counseling, screening, and client education to optimize the client's health. Emphasis is placed on critical thinking and diagnostic reasoning to guide clinical decision making. Management of client illness includes ordering diagnostic tests, prescribing pharmacologic and nonpharmacologic integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Prerequisites: NUR-675 and NUR-675C. Co-requisite: NUR-667C.

NUR-667C^Ω: Advanced Practice Management of Women's Health Issues in Primary Care Clinical **1.5 credits**

Students collaborate with faculty members to select a community-based, women's health-focused, clinical site for completion of 75 clinical hours. The clinical component for NUR-667 allows the student an opportunity to provide comprehensive health care to diverse clients across the life span. Clinical hours are completed in person with a qualified preceptor (NP, DO, MD, DNM) and serve as the opportunity to demonstrate clinical skills, learn clinical decision-making skills, and learn the role of the advanced practice nurse in collaboration with experienced preceptors who serve as mentors. The clinical component of each course is accomplished during the same semester as the corresponding didactic course and is graded as Pass/Fail. Failure of a clinical course constitutes failure of the corresponding didactic course. Clinical hours: 75. Co-requisite: NUR-667.

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

NUR-668^Ω: Advanced Practice Management of Pediatric and Adolescent Health Care Problems in Primary Care **3 credits**

This course focuses on the three levels of prevention and comprehensive primary care management of pediatric and adolescent health care problems of individuals and their families within a culturally and spiritually diverse environment. Advanced health assessment, advanced pharmacology, and advanced physiology and pathophysiology principles are integrated with spirituality concepts and advanced nursing theory. Evidence-based research is utilized to develop comprehensive, cost-effective, least invasive, quality health care for pediatric and adolescent health care problems. Care includes health promotion counseling, client education, and appropriate screening to optimize the client's health. Emphasis is placed on critical thinking and diagnostic reasoning to guide clinical decision making. Management of client illness includes ordering diagnostic tests, prescribing pharmacologic and nonpharmacologic integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Prerequisites: NUR-675 and NUR-675C. Co-requisite: NUR-668C.

NUR-668C^Ω: Advanced Practice Management of Pediatric and Adolescent Health Care Problems in Primary Care Clinical **3 credits**

Students collaborate with faculty members to select a community-based pediatric or adolescent clinical site for completion of 150 clinical hours. The clinical component for NUR-668 allows the student an opportunity to provide comprehensive health care to diverse clients across the life span. Clinical hours are completed in person with a qualified preceptor (NP, DO, MD, DNM) and serve as the opportunity to demonstrate clinical skills, learn clinical decision-making skills, and learn the role of the advanced practice nurse in collaboration with experienced preceptors who serve as mentors. The clinical component of each course is accomplished during the same semester as the corresponding didactic course and is graded as Pass/Fail. Failure of a clinical course constitutes failure of the corresponding didactic course. Clinical hours: 150. Co-requisite: NUR-668.

NUR-669^Ω: Advance Practice Management of Geriatric Issues in Primary Care **1.5 credits**

This course focuses on the three levels of prevention and comprehensive primary care management of geriatric health care problems of individuals and their families within a culturally and spiritually diverse environment. Advanced health assessment, health promotion and disease prevention counseling, advanced pharmacology, and advanced physiology and pathophysiology principles are integrated with spirituality concepts and advanced nursing theory. Evidence-based research is utilized to develop comprehensive, cost-effective, least invasive, quality health care for geriatric clients. Care includes health promotion and disease prevention counseling, client education, and appropriate screening to optimize the client's health. Emphasis is placed on critical thinking and diagnostic reasoning to guide clinical decision making. Management of client illness includes ordering diagnostic tests, prescribing pharmacologic and nonpharmacologic integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Prerequisite: NUR-675. Co-requisite: NUR-669C.

NUR-669C^Ω: Advance Practice Management of Geriatric Issues in Primary Care Clinical **1.5 credits**

Students collaborate with faculty members to select a community-based, geriatric health-focused, clinical site for completion of 75 clinical hours. The clinical component for NUR-669 allows the student an opportunity to provide comprehensive health care to diverse clients in late age. Clinical hours are completed in collaboration with a qualified preceptor (NP, DO, MD, DNM) and serve as the opportunity to demonstrate clinical skills, institute health promotion and disease prevention interventions, learn clinical decision-making skills, and learn the role of the advanced practice nurse in collaboration with experienced preceptors who serve as mentors. Clinical hours: 75. Prerequisite: NUR-675. Co-requisite: NUR-669.

NUR-670^Ω: Leadership in Health Care Organizations Practicum **4 credits**

This course promotes the synthesis and application of knowledge and skills from the nursing core course and the leadership courses. Students identify a mentor and develop a relationship through which they examine the connection between theory and practice. Students engage in leadership activities (e.g., committees, projects, staff education, and quality improvement) and, through reflection and writing, analyze and evaluate leadership behaviors and processes. Prerequisites: LDR-600, LDR-615, and LDR-620.

NUR-671^Ω: 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. This course includes time in the skills lab. Students begin work on their capstone paper. Clinical hours: 100. Prerequisites: NUR-653, NUR-656, and NUR-658.

NUR-672^Ω: Practicum II **4 credits**

This 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 work with a qualified preceptor to refine their clinical decision-making skills in advanced health assessment, clinical diagnosis, procedural skill acquisition, and care management of acute and chronically ill adults and geriatric patients. Clinical experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community, and prepare the ACNP in the diagnosis and management of acute and life-threatening health problems. Students complete the second portion of the capstone paper. Clinical hours: 200. Prerequisite: NUR-671.

NUR-673^Ω: Practicum III **4 credits**

A culminating practicum experience is completed in person with a preceptor, to provide comprehensive health care to complex, acute, and critically ill patients. This course builds upon learning from NUR-672. 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 adults. Clinical experiences emphasize the physiological and psychosocial impact of acute and critical illness on patients, family, and community, and prepare the ACNP in the diagnosis and management of acute and life-threatening health problems. During this course, students

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complete their evidence-based practice project. Clinical hours: 200. Prerequisite: NUR-672.

NUR-675: Advanced Practice Management of Adult Health Care Problems in Primary Care 3 credits

This course focuses on the three levels of prevention and comprehensive primary care management of adult health care problems of individuals and their families within a culturally and spiritually diverse environment. Advanced health assessment, advanced pharmacology, spirituality, and advanced physiology and pathophysiology principles are integrated with advanced nursing theory. Evidence-based research is utilized to develop comprehensive, cost-effective, least invasive, quality health care for adult health care problems. Care will include health promotion counseling, screening, and client education to optimize the client's health. Emphasis is placed on critical thinking and diagnostic reasoning to guide clinical decision making. Management of client illness includes ordering diagnostic tests, prescribing pharmacologic and nonpharmacologic integrative healing therapies, collaborating with other health professionals and community agencies, and pursuing appropriate follow-up. Prerequisites: NUR-631, NUR-634 and either NUR-632 or NUR-633. Co-requisite: NUR-675C.

NUR-675C: Advanced Practice Management of Adult Health Care Problems in Primary Care Clinical 3 credits

The student will collaborate with faculty members to select a community-based, adult or primary care clinical site for completion of 150 clinical hours. The clinical component for NUR-675 allows the student an opportunity to provide comprehensive health care to diverse clients across the lifespan. Clinical hours are completed in person with a qualified preceptor (NP, DO, MD, DNM) and serve as the opportunity to demonstrate clinical skills, learn clinical decision-making skills, and learn the role of the advanced practice nurse in collaboration with experienced preceptors who serve as mentors. The clinical component of each course is accomplished during the same semester as the corresponding didactic course and is graded as Pass/Fail. Failure of a clinical course constitutes failure of the corresponding didactic course. Prerequisites: NUR-631, NUR-634 and either NUR-632 or NUR-633. Co-requisite: NUR-675.

NUR-682C^Q: Advanced Practice Clinical Practicum 4 credits

In this culminating practicum experience, students collaborate with faculty members to select a community-based primary or family health-focused clinical site for completion of 200 clinical hours. This clinical practice affords students the opportunity to refine their clinical-decision management of primary health problems for diverse clients across the life span. Students use the SOAP method to analyze case studies in accordance with the guidelines of evidence-based practice and current standards of care. Clinical hours: 200.

NUR-699^Q: Evidence-Based Practice Project 4 credits

This capstone 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.

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. Prerequisite: 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

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sales and marketing analytics to prove the viability of their business models. Prerequisite: 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: Organizational 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.

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.

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-107: Introduction to Counseling Theories 4 credits

This course provides foundational knowledge in theoretical approaches to counseling. Theoretical models studied include psychodynamic, individual, existential, Gestalt, person-centered, cognitive and behavioral therapy, rational emotive 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.

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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: Group Interventions and Community Resources for Addiction and 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 & Community - 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.

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: Domestic Violence, Child, Elder Abuse-Family 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. Prerequisites: PCN-100 and PCN-107.

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 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.

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

PCN-370^A: Psychopathology & Adv. Treatment - Spec Pop w/ Addiction & Substance Use Disorders 4 credits

This writing intensive course focuses on assessment, treatment, risk factors, prevention, and aftercare issues as they apply to women, elderly, severely mentally ill, homeless, disabled, and HIV-positive populations. Prerequisites: PCN-100 and PCN-107.

PCN-373: Spirituality and Addiction 4 credits

This course focuses on the implications of spirituality in the examination of addiction. Legal, ethical, and spiritual aspects related to death and dying as well as grief and loss are explored. Prerequisites: PCN-100 and PCN-107.

PCN-404^A: Prof., Legal, & Ethical Issues - Addiction & 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-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 is foundational for the addiction counselor. It provides a comparative examination of the major accepted approaches to alcohol and drug abuse counseling. The course bridges the gap between research and practice incorporating best practices into its curriculum. Case studies and role plays are used to help students develop primary counseling skills. In addition, this course provides foundation and experience specific to treating special populations (e.g., adolescents, GLBT, ethnic classes, and diversity groups).

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. Students demonstrate and apply 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-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 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-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. 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

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

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. 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 credit**

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 credit**

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 credit**

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 also 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 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.

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; 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.

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 and needs 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 strategies for facilitating optimum development over the life span are addressed.

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. Prerequisites: PCN- 501, PCN-505 and PCN-500.

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 will be addressed. The following statistical concepts will also be 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

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

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 will be examined. Students will 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: the importance of research, opportunities, and difficulties in conducting research. Research methods such as qualitative, quantitative, single-case designs, action research, and outcome-based research will be addressed.

PCN-545: Spousal and Child Abuse, Crisis, and Trauma Counseling **3 credits**

This eight-module course is divided into three distinct and separate sections. The first three modules examine crisis intervention and trauma counseling; Theories and strategies of trauma counseling and facilitating crisis interventions are also addressed. The second three modules 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 modules 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.

PCN-610: Diagnostics, Assessment, 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.

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.

PCN-622^Ω: Pre-Practicum **2 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; and maintenance of student professional liability insurance in the amount of \$1 million, \$3 million.

PCN-622B^Ω: Pre-Practicum II **1 credit**

This is a supervised field work 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 directly to the college's office of field experience for verification and tracking. 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.

PCN-640: Specialization in Professional Counseling **3 credits**

This survey course provides an introduction to the graduate certificate programs in childhood and adolescence disorders, marriage and family therapy, 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. Students explore the manner in which community

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

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 Emotional 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.

PCN-645: History, Trends, and the Development of Identity in Professional Counseling **1 credit**

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-660A^Ω: Practicum/Internship I **3 credits**

Each supervised internship provides an opportunity to accumulate 150 contact hours of required practicum experience. Students will use this 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 internship will be performed under the supervision of a faculty member and by an on-site supervisor approved by the college or university. Documentation of completed contact hours will be submitted directly to the college's office of field experience for verification and tracking. Prerequisites: Completion of PCN-615; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million.

PCN-660B^Ω: Practicum/Internship II **3 credits**

Each supervised internship provides an opportunity to accumulate 150 contact hours of required practicum experience. Students will use this 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 internship will be performed under the supervision of a faculty member and by an on-site supervisor approved by the college or university. Documentation of completed contact hours will be submitted directly to the college's office of field experience for verification and tracking. Prerequisites: Completion of PCN-615; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million.

PCN-660C^Ω: Practicum/Internship III **3 credits**

Each supervised internship provides an opportunity to accumulate 150 contact hours of required practicum experience. Students will use this 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 internship will be performed under the supervision of a faculty member and by an on-site supervisor approved by the college or university. Documentation of completed contact hours will be submitted directly to the college's office of field experience for verification and tracking. Prerequisites: Completion of PCN-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.

PCN-660D^Ω: Practicum/Internship IV **3 credits**

Each supervised internship provides an opportunity to accumulate 150 contact hours of required practicum experience. Students will use this 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 internship will be performed under the supervision of a faculty member and by an on-site supervisor approved by the college or university. Documentation of completed contact hours will be submitted directly to the college's office of field experience for verification and tracking. Prerequisites: Completion of PCN-615; a GPA of 3.0 or better; maintenance of student professional liability insurance in the amount of \$1 million, \$3 million.

PCN-660E^Ω: Practicum/Internship V **1 credit**

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.

PCN-660F^Ω: Practicum/Internship VI **1 credit**

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: PCN-660E; 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-660G^Ω: Practicum/Internship VII **1 credit**

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: PCN-660F; 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-660H^Ω: Practicum/Internship VIII **1 credit**

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: PCN-660G; 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-660I^Ω: Practicum/Internship IX **1 credit**

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

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

approved by the college or university. Prerequisites: PCN-660H; 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-660J^Ω: Practicum/Internship X **1 credit**

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: PCN-660I; 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-660K^Ω: Practicum/Internship XI **1 credit**

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: PCN-660J; 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-660L^Ω: Practicum/Internship XII **1 credit**

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: PCN-660K; 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-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. 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. 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. 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. 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 credit**

This is a continuation of the counseling Practicum/Internship. 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.

PCN-662F^Ω: Practicum/Internship VI **1 credit**

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.

PCN-662G^Ω: Practicum/Internship VII **1 credit**

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.

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

PCN-662H^Ω: Practicum/Internship VIII **1 credit**

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.

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.

PCN-671: Psychopathology and Treatment of Children and Adolescence **3 credits**

This course provides students with an in-depth understanding of common DSM 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: Development through Childhood and Adolescence **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.

PCN-825: Ethics and Behavioral Health Leadership **3 credits**

This course provides a broad understanding of professional codes of ethics, the ethics of supervision, the legal standards, and

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

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 credit**

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 credit**

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**

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^A: Teaching Strategy in Physical Education and Exercise Science **4 credits**

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**

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**

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.

PED-325: Coaching Baseball: Theory and Practice **4 credits**

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.

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

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

evaluation. The course also includes field experience—both on and off site—to integrate theory and skills with professional practice.

PED-331: Coaching Wrestling: Theory and Practice **4 credits**

This course is intended to introduce the profession of coaching wrestling 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 wrestling, 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-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.

PED-415^z: 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.

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-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-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. Prerequisites: 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.

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

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

responding to significant objections to Christianity with humility and respect.

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 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. Prerequisites: MAT-250, MAT-261 or College Algebra. Co-requisite: PHY-111L

PHY-111L: General Physics I Lab 1 credit

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-250, MAT-261 or College Algebra. Co-requisite: PHY-111.

PHY-112: General Physics II 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

PHY-112L: General Physics II Lab 1 credit

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-112L

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. Co-requisites: PHY-121L and MAT-264.

PHY-121L: University Physics I Lab 1 credit

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. Co-requisites: PHY-121 and MAT-264.

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: PHY-121 and PHY-121L. Co-requisite: PHY-122L.

PHY-122L: University Physics II Lab 3 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: PHY-121 and PHY-121L. Co-requisite: PHY-122.

PHY-505: Classical Mechanics 4 credits

This course will discuss various advanced extensions of classical (Newtonian) mechanics such as rigid dynamics, variational principles, Lagrange's and Hamilton's equations, canonical transformations, and elasticity theory. The course will also provide an introduction to chaos and nonlinear dynamics. Prerequisites: PHY-121.

PHY-510: Advanced Electricity and Magnetism 4 credits

This course will discuss various applications of physics in the field of medicine. Course topics include the use of lasers, various radiation therapies, including imaging techniques such as x-rays, ultra sound, endoscopy, positron emission tomography, and magnetic resonance imaging. The focus of the course is on the applications with only a minimal mathematical treatment.

Prerequisite: PHY-112.

PHY-515: Advanced Topics in Modern Physics 4 credits

This course will apply the various topics of physics including basic mechanics, electromagnetism, relativity, and nuclear physics to develop an evolutionary study of the life cycle of astronomical systems. This is from stars to star clusters up to galaxies and galactic clusters and super-clusters, culminating in describing the life and death cycle of the universe. As the course unfolds, the nature of exotic objects or properties will be emphasized. This will include supernovae, neutron stars, black holes, active galaxies, gamma ray bursters, dark matter, and dark

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

energy. The ultimate focus of the course will be to delve into the large-scale structure of the universe, how it has evolved over time, and what will be its ultimate fate. Observational instrumentation and data from across the electromagnetic spectrum will be emphasized in revealing how theories are developed to explain the observations. This will begin with the primitive approach taken by the first astronomers. Pre-requisites: Undergraduate physics courses in mechanics, electromagnetism, and modern physics and calculus I and II.

PHY-520: Nanotechnology **4 credits**

Nanoscience and nanotechnology involve the study and application of matter on atomic and small molecular levels that can be used across the fields of chemistry, biology, physics, materials science, and engineering. Significant technological and industrial benefits can be derived from matter's enhanced properties such as higher strength, lighter weight, and superior physical, chemical, electronic performance at lower cost than their larger-scale counterparts. This course will discuss current concepts, applications, and trends in the field of nanotechnology, with specific focus on nanoscale physics, materials, mechanics, and photonics. Prerequisites: PHY-121 and 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-499: Independent Study **1-4 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.

POS-530TE: Arizona and Federal Government for Current Practitioners **1 credit**

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.

POS-500: U.S. and Arizona Constitutions for Teacher Candidates **3 credit**

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-332V: Political and Legal Systems **3 credits**

Students will analyze and apply the legal system's model for understanding governmental, legal, and operational problems via the application of systems theory.

PSA-350V: Managerial Communications **3 credits**

This course examines personal and professional relationships through the use of effective verbal and non-verbal skills.

PSA-351V: Public Safety and the Community **3 credits**

This course examines the human and community services, in particular, law enforcement, fire protection, and emergency medical services, from theoretical and practical positions. A major focus will be the underlying philosophies, values, mission, planning, and development of programs and systems, as well as evaluating and altering them. The process of anticipating current and future challenges and the impacts of public policy, public opinion, and customer dynamics will also be explored.

PSA-360V: Information Technology and Systems **3 credits**

This course focuses on the organizational, management, and technology dimensions of information systems. Although many technologies are covered, it is not intended to be a technology class.

PSA-433V[^]: Research Methodology **3 credits**

This course helps students identify problems, review related literature, collect data, and measure objectives in the public safety environment. Students will apply analytical skills to public safety related research projects. A writing intensive course.

PSA-435V: Strategic Planning **3 credits**

This course deals with the fundamentals and application of strategic analysis and planning in public safety.

PSA-438V: Human Resource Management **3 credits**

This course explores values and perceptions of groups that affect recruiting, training, retention, evaluation, and current legal issues in human resources.

PSA-439V: Leadership in Public Safety **3 credits**

This course focuses on motivation theory relating to individual and group functioning in public safety organizations. Leadership styles and their impact on performance are examined.

PSA-440V: Ethics in Public Safety **3 credits**

This course explores case issues and philosophies as they relate to accountability in the public safety environment.

PSA-460V: Project Management **3 credits**

This course addresses basic concepts in project management, emphasizing a balance between the technical aspects of project work. Topics include the emerging importance of project management, tools, and techniques to plan and schedule projects, the manager's role in coordinating projects, and how managers need to be aware of cultural influences.

PSA-490V: Organizational Development and Change **3 credits**

The course provides an overview of approaches to organizational development with emphasis on the practical aspects of changing public safety organizations to improve effectiveness.

[^] 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. Prerequisite: MGT-420.

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-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, sexual behavior, 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. Also SOC-225.

PSY-255: 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.

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.

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.

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.

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.

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

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

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. Prerequisites: PSY-355.

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. Prerequisite: PSY-102 or SOC-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. Prerequisite: SOC-102.

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-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..

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.

PSY-452^Ω: 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.

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-495^Ω: Professional Capstone Project **4 credits**

The capstone project is a culmination of the learning experiences while a student in the psychology program at Grand Canyon University's College of Humanities and Social Sciences. Students prepare a written proposal for a project that focuses in the resolution of an issue or problem significant to professional psychological practice. The proposal includes a problem statement, review of literature, research methods, results/discussion, 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. This course is the last course in the program of study, all other course work must be completed before this course.

PSY-499: Independent Study **1-4 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.

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.

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

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.

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.

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

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 will be 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-692^Ω: Capstone Course **2 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-693^Ω: Professional Capstone **2 credits**

This course prepares students to enter their prospective career and/or continue their education in psychology. Students 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 are 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^Ω: 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.

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

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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/ 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.

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

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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 to performance enhancement. Business and consulting skills are also addressed.

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^Ω: 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^Ω: 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^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.

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. Prerequisite: PSY-860.

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.

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: 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**

This course introduces students to the final phase of the doctoral study in psychology: the doctoral dissertation. Students plan, conduct, analyze, and interpret original research, and submit their final product for approval during an oral defense. This course offers students the opportunity to select an appropriate topic, and draft the first three sections of their dissertation (introduction, literature review, and methods).

PSY-960^Ω: Dissertation II **3 credits**

Following successful completion of PSY-955, students continue their work toward the completion of their dissertation by gaining both committee and IRB approval for their proposal, conducting their data collection in accordance with the methods selected in their proposal, and analyzing the results. By the end of this course, students should have the fourth chapter of their dissertation completed. Prerequisite: PSY-955.

PSY-965^Ω: Dissertation III **3 credits**

Following successful completion of the two preceding dissertation courses, students finish their work on their doctoral dissertation and submit it for final approval during the oral defense. This course affords students the opportunity to draft a discussion section that interprets their findings, as well as an abstract that summarizes their findings. Students also draft their front and back matter, including appendices, tables, and a reference section. The final step in this course is to defend the doctoral dissertation, obtain final committee approval, and submit the document for publication. 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-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-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

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dissertation chair and committee members based on their individual progress plan for completing their dissertation. Prerequisite: PSY -967.

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-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 credit**

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: PSY -970.

Reading Education (RDG)

RDG-511: Corrective Reading Assessment **4 credits**

This course introduces participants to the barriers that prohibit students from learning to read. The course provides participants with a working knowledge of common reading difficulties. Participants are provided with informal diagnostic tools to diagnose common reading problems. They also investigate how to identify and implement a corrective action plan, as well as analyze and reflect on its results. Research-based intervention programs and guidelines for accessing appropriate resources to provide instructional support for students with reading difficulties are investigated in this process. This course meets the following International Reading Association (IRA) Standards: 1.1, 1.2, 1.3, 2.2, 2.3, 3.1, and 3.2.

RDG-512: Reading and Writing: Elementary **4 credits**

This course is designed for students to acquire foundational knowledge related to elementary linguistic principles of the English language—the basics of phonetics, phonology, morphology, syntax, and new vocabulary—while addressing the issues related to the usage of standard and nonstandard varieties of English. That knowledge is then practically used as students investigate the assessment of elementary reading and writing problems. This course meets the following International Reading Association (IRA) Standards: 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 4.4, 5.1, and 5.2.

RDG-513: Reading and Writing: Secondary **4 credits**

This course helps students to acquire foundational knowledge related to secondary linguistic principles of the English language—the basics of phonetics, phonology, morphology, syntax, and new vocabulary—while addressing the issues related

to the usage of standard and nonstandard varieties of English. That knowledge will be practically used as students investigate the assessment of secondary reading and writing problems. This course meets the following International Reading Association (IRA) Standards: 1.1, 1.3, 2, 2.2, 2.3, 3, 3.1, 3.2, 3.4, and 5.

RDG-514: Reading in the Content Areas: Elementary **4 credits**

This course links reading skills across the curriculum through the use of instructional strategies and assessments. The use of textbooks, trade books, literature, and electronic texts is explored with a focus on strategies that are relevant in every elementary content area. This course meets the following International Reading Association (IRA) Standards: 1.1, 2.2, 2.3, 3.3, 4.1, 4.2, 5.1, 5.2, 5.3, and 5.4.

RDG-517: Reading in the Content Areas: Secondary **4 credits**

This course links reading skills across the curriculum through the use of instructional strategies and assessments. The use of textbooks, trade books, literature, and electronic texts are explored with a focus on strategies that are relevant in every secondary content area. This course meets the following International Reading Association (IRA) Standards: 1.1, 2.2, 2.3, 3.3, 4.1, 4.2, 5.1, 5.2, 5.3, and 5.4.

RDG-520TE: Elementary Education Reading and Writing for Current Practitioners **3 credits**

This course is designed to allow students to acquire foundational knowledge related to principles of balanced literacy (i.e., the teaching of reading and writing together). Learners acquire reading and writing strategies to implement within the elementary classroom.

RDG-522: Developmental Learning and Assessments **4 credits**

This course combines a study of learning (including both cognitive and behavioral perspectives), human development (childhood through adolescence), and assessment (traditional and performance, teacher-made and standardized). Course participants apply course information practically to reading assessment and instruction. This course meets the following International Reading Association (IRA) Standards: 1.1, 1.3, 2.2, 2.3, 3.1, 3.2, 3.4, and 5.

RDG-523: Instructional Leadership/Literacy Coaching **4 credits**

Students acquire a repertoire of skills that enable them to function comfortably and effectively in a changing learning environment. The course provides teachers with an understanding of the complexity of being a leader in times of change. Students develop a vision of systemic change and demonstrate practical skills for ensuring smooth day-to-day operations within their school.

RDG-526TE: The Reading Process for Current Practitioners **3 credits**

This course provides participants with a solid foundation in the reading process and its real-world applications. The three stages of literacy acquisition and growth are discussed at each cognitive level.

RDG-527TE: How to Comprehend Literacy and Literature for Current Practitioners **3 credits**

In this course, learners are exposed to literary elements of both narrative and expository text. Strategies for the development of

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comprehension and vocabulary skills that promote understanding of literature are also explored.

RDG-528TE: Reading Diagnosis: The Application of and Rationale for Assessment for Current Practitioners 3 credits

Learners explore informal and formal reading assessments and analyze specific literary measures given at their schools. An opportunity to administer an informal reading inventory is provided. This course meets the following International Reading Association (IRA) Standards: 1 and 2.

RDG-530: Foundational Theory and Research 4 credits

This course examines the past trends in reading instruction in America and addresses the effects of historical studies that impacted the evolution of reading instruction over the past half-century. Attention is focused on determining the core findings of important research studies and applying that knowledge to the reading profession, as well as examining effective research techniques that are used in those processes. Students conduct action research related to their job roles and evaluate and interpret research literature. Students evaluate theory, techniques, and design of scientific research. The national standards for the International Reading Association are incorporated as well, with students ultimately creating an electronic portfolio based on those standards. This course meets the following International Reading Association (IRA) Standards: 1.1, 1.2, 1.3, 1.4, 3.1, 3.3, 5.2.

RDG-533TE: Corrective Reading Assessment for Current Practitioners 3 credits

This course is designed for students to acquire knowledge related to diagnostic common reading problems. Learners investigate how to identify and implement a corrective action plan as well as analyze and reflect on the results of the corrective action plan.

RDG-534TE: Secondary Education Literacy and Writing for Current Practitioners 3 credits

This course is designed for students to acquire knowledge related to principles of balanced literacy (teaching of reading and writing together). Learners study reading and writing strategies to implement within the secondary classroom.

RDG-537TE: Elementary Reading in the Content Areas for Current Practitioners 3 credits

This course links reading skills across the curriculum through the use of instructional strategies and assessments. The use of textbooks, trade books, and literature is explored, with a focus on strategies that are relevant in every elementary content area.

RDG-538TE: Secondary Reading in the Content Areas for Current Practitioners 3 credits

This course links reading skills across the curriculum through the use of instructional strategies and assessments. The use of textbooks, trade books, and literature is explored, with a focus on strategies that are relevant in every secondary content area.

RDG-542TE: Instructional Leadership and Literacy Coaching for Current Practitioners 3 credits

The course provides teachers with an understanding of the complexity of being a leader in times of change and affords them the opportunity to develop a vision of systemic change and demonstrate practical skills for ensuring smooth day-to-day operations within their schools.

RDG-560TE^Ω: Elementary Education Reading Practicum for Current Practitioners 3 credits

Participants use an informal reading inventory to diagnose and assess reading abilities. Each participant assesses an elementary education student and implements an individualized one-on-one action plan with the student based on the assessment results.

RDG-561TE^Ω: Secondary Education Reading Practicum for Current Practitioners 3 credits

Participants use an informal reading inventory to diagnose and assess reading abilities. Each participant assesses a secondary education student and implements an individualized one-on-one action plan with the student based on the assessment results.

RDG-581^Ω: Elementary Practicum 4 credits

This course provides an in-depth study of the International Reading Association (IRA) Standards by examining research-based approaches linking assessment and instruction for elementary teachers. Teachers learn to use a wide range of formal and informal assessment tools and methods to diagnose and assess reading and writing development, instruction, and assessment. Students develop individual case studies. This course meets the following IRA Standards: 1.3, 1.4, 2.2, 3.1, 3.2, and 3.4. Practicum/field experience: 90 hours. Fingerprint clearance required.

RDG-585: Children and Young Adult Literature 4 credits

The course focuses on using literature within a complete developmental literacy program from the emergent stage to the adult proficiency level. 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. Knowledge and skills are developed to assist students with applying the components of balanced literature-based literacy programs within their classroom or school setting. This course meets the following International Reading Association (IRA) Standards: 1.1, 1.2, 1.3, 2.2, 2.3, 4.1, 4.2, 5.3.

RDG-586^Ω: Secondary Practicum 4 credits

This course provides an in-depth study of the International Reading Association (IRA) Standards by examining research-based approaches linking assessment and instruction for secondary teachers. Teachers learn to use a wide range of formal and informal assessment tools and methods to diagnose and assess reading and writing development, instruction, and assessment. Students develop individual case studies. This course meets the following IRA Standards: 1.3, 1.4, 2.2, 3.1, 3.2, and 3.4. Practicum/field experience: 90 hours. Fingerprint clearance required.

Reading (REA)

REA-305: Children's Literature 4 credits

Reading Specialist/Literacy Coach candidates evaluate types and purposes of literature based on the developmental literacy needs of 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. Practicum/field experience hours: 10. Fingerprint clearance is required.

REA-500: Foundations in Language and Literacy 3 credits

Reading specialist/Literacy coach candidates survey the theoretical and evidence-based foundations of reading and

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writing processes and instruction. This survey includes an exploration of historical through current reading and writing development, processes, and components. Reading specialist/literacy coach candidates are introduced to ethical and professional roles. Practicum/field experience hours: None. Fingerprint clearance not required.

REA-500TE: Foundations in Reading **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-510: Survey of Reading Assessments **3 credits**

Reading specialist/literacy coach candidates survey a variety of 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, the reading specialist/literacy coach candidates develop effective communication techniques. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-500.

REA-515: Advanced Studies in Reading Assessment Systems **3 credits**

Reading specialist/literacy coach 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 specialist/literacy coach candidates communicate assessment results to a variety of audiences. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: REA-510.

REA-520: Introductory Instructional Methods for Elementary 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-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 specialist/literacy coach 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.

REA-580^Ω: Secondary 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-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

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

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: 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: 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: 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.

RES-865: 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.

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 students to begin developing their skills as academic researchers. Residency sessions address topics such as research question development, design, item generation, subscale development and analysis, and basic hypothesis testing. Students have hands-on experience with quantitative and qualitative analysis software.

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.

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

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..

Science (SCI)

SCI-210: History 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-300L: Laboratory Safety and Supervision **1 credit**

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-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 is required. Prerequisites: 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.

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. Prerequisite: Senior status.

SCI-498^Ω: 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.

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 is 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 is 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 is 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 is required. Prerequisite: SEC-355.

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

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 is 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 Teacher Work Sample (TWS). 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-505: Adolescent Development and Psychology 3 credits

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-507: Child and Adolescent Development and Psychology 3 credits

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 Learning Environments 3 credits

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.

SEC-515: Assessment and Evaluation for Middle and High School Teachers 3 credits

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-525: 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. Practicum/field experience hours: 15. Fingerprint clearance required. Prerequisite: SEC-515.

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 7-12 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.

^Ω 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**

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-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 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 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.

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 Strategies 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. Prerequisites: SED-444.

SED-480NA^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. 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 for B: 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. Prerequisites: 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. Prerequisite: Fingerprint Clearance.

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.

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

Practicum/field experience hours: 30. Fingerprint clearance required. Prerequisites: SED-444.

SED-533TE: Early Adolescent Psychology in Middle School Teaching for Current Practitioners 3 credits

This course explores the physical, psychological, and socio-emotional development of adolescents in the middle-school setting. Also discussed are strategies for promoting positive habits for adolescents to enrich the health of body, mind, and emotions.

SED-534TE: Middle School Teaching Curriculum and Methods for Current Practitioners 3 credits

This course examines the developmental characteristics and needs of young adolescents and the relationship between these characteristics and middle-school practices. Age-appropriate instructional strategies are studied. Learners consider implications for middle-school curriculum and classroom instruction.

SED-535: 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-536TE: Methods of Teaching Mathematics in Secondary Schools for Current Practitioners 3 credits

This course is designed to develop teachers' understanding of and ability to apply the methods and principles of effective instruction in the secondary mathematics classroom. Topics discussed include the importance of planning for instruction, national principles and standards for school mathematics instruction, instructional strategies, and the integration of technology and Web resources to enhance mathematics instruction and increase student achievement.

SED-537TE: Methods of Teaching Science in Secondary Schools for Current Practitioners 3 credits

This course covers the methods of instruction, organization, and presentation of scientific content to secondary school students. Topics include curriculum, stockroom organization, lab safety and liability, visual aid preparation, computer use in the classroom, and research issues in education.

SED-538TE: Methods of Teaching Social Studies in Secondary Schools for Current Practitioners 3 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. Major themes, philosophical frameworks, instructional techniques, and the creation of informal, formal, and formative assessments are reviewed.

SED-541: Secondary Theory, Methods, and Data-Driven Pedagogy 4 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 given to 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.

SED-544: Secondary Curriculum Development and Assessment 4 credits

Various orientations to curriculum development and assessment are investigated and elements of model curricula are examined. Emphasis is given to 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. Participants develop their own curriculum unit. Practicum/field experience hours: 15. Fingerprint clearance required.

SED-553: Reading and Literacy Strategies for Middle and Secondary Schools 4 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. A major emphasis is given to the use of reading strategies for culturally and socially diverse classrooms, including the use of literacy-based instruction in all content areas and the understanding, evaluating, and promoting of effective pedagogy in adolescent literacy. The development and use of integrated and thematic approaches of instruction are addressed. Students are expected to observe and assist in a grade 7-12 classroom while taking this course. Practicum/field experience hours: 30. Fingerprint clearance required.

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. 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 for B: 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.

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

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-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-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-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. Students analyze globalization through comparative studies and "flow" analysis. 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. Prerequisite: PSY-362.

SOC-386^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. Prerequisite: SOC-372.

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^Δ: Social Inequality and Stratification **4 credits**

This writing intensive 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-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-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

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

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.

SOC-480^Ω: Sociology and Social Work Capstone 4 credits

This course examines the sociological concepts of society and culture through the examination of individuals and their real-life experiences. The course compares and contrasts 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. Prerequisite: SOC-372 and SOC-436.

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-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

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-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-105. Co-requisite: SPA-201L.

SPA-201L: Intermediate Spanish I Lab 1 credit

A lab course designed to complement and support the principles learned in SPA-201. Prerequisite: SPA-105. 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 credit

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. This course includes 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. This course includes some study of Spanish-language cultures. Prerequisite: SPA-214.

SPA-309: Spanish Conversation 4 credits

This course helps students speak with fluency and standard pronunciation, develop facility in the language, and become conversant with Spanish-language cultures, common expression, and everyday usage. 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-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-341: Introduction to Literature in Spanish 4 credits

This course provides an introduction to literary concepts, terminology, and theory with application to poetic, dramatics, and prose texts. This course includes some study of Spanish-language cultures. Prerequisite: SPA-310.

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

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. Candidates identify cognitive, linguistic, social, and emotional patterns of learning and development for students with mild to moderate disabilities. Candidates also survey the special education process involving the application of various laws and regulations. Practicum/field experience hours: 10. Fingerprint Clearance is required.

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 is 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 is 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 is 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/clinical 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-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. Field experience hours: 6. Fingerprint clearance not required.

SPD-500TE: 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-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-503TE: Foundations of Gifted Education **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-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.

^ 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**

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-513TE: 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. 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-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-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-523TE: Creativity and Talent Development in Gifted Education **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-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 is 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-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 is 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 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: 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

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

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-553: Assessing and Identifying Gifted Learners **3 credits**

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-553TE: Assessing and Identifying Gifted Learners **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-555: Life Skills and Transitions for Autism Spectrum Disorders **3 credits**

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-560: Language Development with Mild to Moderate Disabilities and Disorders **3 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. Field experience hours: 9. Fingerprint clearance required. Prerequisite: SPD-510.

SPD-563: Gifted Programming and Environments **3 credits**

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-565: Communication Strategies 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, ASD specialist candidates survey assistive technology in relation to enhancing communication of students with autism spectrum disorders. Practicum/field experience hours: 10. Fingerprint clearance is required. Prerequisite: SPD-525.

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-570TE: 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-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

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

experience hours: 5. Fingerprint clearance required. Prerequisite: SPD-503.

SPD-575^Ω: 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-580TE: 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-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-590^Ω: 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 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 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.

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

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.

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.

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 and SPE-330.

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

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

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^Ω: Student Teaching: Cross-Categorical Session B **6 credits**

This session is a continuation of Session A. Prerequisite for B: EED-480NA.

SPE-501TE: Overview of Special Education for Current Practitioners **3 credits**

This course orients learners to the field of special education. The learner is introduced to the thirteen disabilities defined by Individuals with Disabilities Act (IDEA), to Individualized Education Plans (IEPs), and to instructional planning for students with Exceptional Learning Needs (ELN).

SPE-502TE: Characteristics and Strategies for Teaching Individuals with Autism for Current Practitioners **3 credits**

This course reviews autism as a developmental disorder. Autism is more prevalent in our classrooms; therefore, the course focuses on strategies and technologies used to assist the learning process for children with autism.

SPE-503TE: Elementary Education Methods and Strategies for Gifted Students for Current Practitioners **3 credits**

This course explores gifted education at the elementary school level. Learners are introduced to the nature, level, and types of giftedness in elementary age students. Practical application is emphasized.

SPE-506TE: Classroom Management for Students with Special Needs for Current Practitioners **3 credits**

This course discusses the characteristics and effective implementation of various behavior modification strategies. Positive Behavior Support (PBS) and Functional Behavioral Assessment (FBA) are discussed.

SPE-507TE: Special Education Foundation and Framework for Current Practitioners **3 credits**

This course assists practicing teachers with instructional strategies for special education students. Special education research and best practices are discussed.

SPE-509TE: Collaborative Processes in Special Education for Current Practitioners **3 credits**

Emphasis is placed on the practical application of skills and strategies needed to fulfill the roles and responsibilities of educators in meeting the needs of learners with disabilities in the general education classroom. Course content focuses on collaboration between all members of a student's education team. Collaborative models and professional roles/responsibilities are addressed.

SPE-510: Strategies to Teach Individuals With Learning Disabilities **4 credits**

The focus of this course is to provide advanced knowledge of learning disabilities (LD), including the history with attention to definitions, causes, and characteristics of LD in children and adults. The cognitive processes of students with and without LD 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, 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 LD. Practicum/field experience hours: 15. Fingerprint clearance required.

SPE-511TE: Special Education Assessment for Current Practitioners **3 credits**

This course explores the system of assessing exceptional children, focusing on the evaluation of a child's abilities, strengths, and needs. Common assessment tools used in public school special education programs are examined, with an emphasis on the legislation and diagnostic procedures involved. Test construction and score interpretation techniques are discussed, and general instructional practices and behavioral recommendations are addressed.

SPE-512: Assessment in Special Education for Certified Special Educators **4 credits**

The focus of this course centers on various types of assessment used to diagnose students with special needs. Specific focus is placed on the validity, reliability, instrumentation, and

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

disaggregation of assessment scores to determine instruction and placement decisions. Additional focus is on assessment of culturally and/or linguistically diverse students. Current assessment trends are discussed. Practicum/field experience hours: 15. Fingerprint clearance required.

SPE-513: Strategies to Teach Individuals With Emotional/Behavioral Disabilities 4 credits

This course familiarizes students with historical and current trends associated with emotional and behavioral disorders (EBD). Causes, assessment, and appropriate interventions for students with EBD are discussed along with current over- and under-representation across populations. Practicum/field experience hours: 15. Fingerprint clearance required.

SPE-514: Strategies to Teach Individuals With Intellectual Disability 4 credits

The focus of this course is to provide advanced 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, while 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. Practicum/field experience hours: None. Fingerprint clearance not required.

SPE-516TE: Special Education Litigation and Law for Current Practitioners 3 credits

This course introduces learners to legal issues in special education. The evolution of special education laws, including a close examination of IDEA and its impact on stakeholders, is examined. Learners apply knowledge of special education law to case studies.

SPE-521TE: Characteristics and Strategies for Mild to Moderate Intellectual Disabilities for Current Practitioners 3 credits

This course provides teachers in special education with additional knowledge of Intellectual Disabilities (ID), with a focus on law and litigation, definition, causes, and characteristics of ID in children and adults. The impact of ID on the lives of individuals and the necessary support systems for quality of life are examined.

SPE-522: Classroom Management for Students With Special Needs 4 credits

This course discusses the characteristics and effective implementation of various behavior modification strategies. Positive Behavior Support (PBS) and Functional Behavioral Assessment (FBA) are discussed.

SPE-523: Special Education Program Development and Funding 4 credits

Students demonstrate understanding of principles and processes of special education program development by designing, implementing, and evaluating programs for students with special needs. Further discussion focuses on policies, practices, and issues related to special education finance at the local, state, and federal levels, including sources, legal mandates, and budgeting.

SPE-524TE: Inclusion and Collaboration Practices For Current Practitioners 3 credits

This course focuses on the inclusion and collaboration process of students with special needs in general education classrooms. Legislation pertaining to special education programs in public schools is discussed. Students examine the strategies that enable successful mainstreaming for both the exceptional child and the general education teacher.

SPE-526: Educating Learners With Diverse Needs 4 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. Practicum/field experience hours: 15. Fingerprint clearance required.

SPE-527: Inclusion and Collaborative Practices 4 credits

This class emphasizes practical applications of skills and strategies needed to fulfill the roles and responsibilities of educators in meeting the needs of learners with disabilities in the general education classroom. Course content focuses on strategic instruction, behavior interventions, and the development and application of modifications and/or accommodations for diversity.

SPE-529N: Special Education Foundations and Framework 3 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. It includes an introduction to creating a professional portfolio.

SPE-530TE: Characteristics and Strategies for Mild to Moderate Learning Disabilities for Current Practitioners 3 credits

This course provides knowledge of learning disabilities (LD), including law, definition, and causes and characteristics of LD in children and adults. 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.

SPE-531TE: Characteristics and Strategies for Severe to Profound Disabilities for Current Practitioners 3 credits

This course is designed to provide learners with an overview of the current research, strategies, and methodologies for students with severe and profound disabilities.

SPE-532TE: Characteristics and Strategies for Mild to Moderate Emotional Disabilities for Current Practitioners 3 credits

This course outlines issues surrounding emotional disabilities (ED), including law and litigation, definition, etiology, types, and characteristics of learners with ED. Assessment techniques and specific individual and group behavior management models, programs, strategies, and interventions for elementary and secondary students with ED in special and regular education classes are investigated.

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

SPE-536: Diagnosis and Assessment in Special Education **4 credits**

This capstone course in special education is designed to incorporate issues in collaboration and communication and to synthesize the special education process from assessment to delivery of instruction (i.e., evaluation, eligibility, placement, and instructional practice). Specific skill development includes assessing students with disabilities, completing special education forms, and conducting meetings and conferences with parents and school professionals. A school-based practicum provides participants with experiences in standardized testing and case studies, problem-solving meetings, cooperative team planning, and inclusion processes. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisites: SPE-522.

SPE-537: Assistive Technology in Special Education **4 credits**

Students become skilled at applying modifications and adaptations available through various types of assistive technology. Utilization of assistive technology across the curriculum and for a variety of purposes is discussed.

SPE-539: Educational Implications for Students With Physical and Health Impairments **4 credits**

This course provides students with knowledge of physical and other health impairments with related discussions on how these disabilities affects an individual's life. Students 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. Section 504 plans are discussed. Practicum/field experience hours: 15. Fingerprint clearance required.

SPE-541TE: Assistive Technology for Current Practitioners **3 credits**

This course provides teachers with knowledge of assistive technology in relation to special education. The course focuses on the legal history, purpose, and types of assistive technology.

SPE-546: Management and Strategic Instruction Practices for Students With Special Needs **4 credits**

This course discusses the characteristics and effective implementation of various behavior modification strategies. Positive Behavior Support (PBS) and Functional Behavioral Assessment (FBA) are discussed.

SPE-548NA^Ω: Student Teaching: Cross-Categorical 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). Prerequisites: Fingerprint Clearance; 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 (AEP). All paperwork for student teaching must be submitted by the due date the semester prior to student teaching.

SPE-548NB^Ω: Student Teaching: Cross-Categorical Session B **6 credits**

This session is a continuation of Session A. Prerequisite for B: SPE-548NA.

SPE-553: Characteristics of Intellectual Disability and Strategies to Teach Individuals With ID **4 credits**

The focus of this course is to provide teacher candidates in special education with advanced 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. Particular attention is given to the structure and details of the lesson plans necessary to meet the individual needs of students with ID. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisite: SPE-522.

SPE-557: 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 advanced knowledge of learning disabilities (LD), including the history with attention to law and litigation, definition, causes, and characteristics of LD 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. Teacher candidates teach lessons in a class for students with LD. Practicum/field experience hours: 20. Fingerprint clearance required. Prerequisite: SPE-522.

SPE-558: Characteristics of Emotional/Behavioral Disabilities and Strategies to Teach Individuals With EBD **4 credits**

The focus of this course is to provide special education teacher candidates with advanced knowledge of emotional/behavioral disabilities (EBD), including the history with attention to law and litigation, definition, etiology, types, and characteristics of students with EBD. Teacher candidates investigate theories and models of EBD and related treatments. Assessment techniques and the factors involved in a diagnosis of EBD are also 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. Practicum /field experience hours: 20. Fingerprint clearance required. Prerequisite: SPE-522.

SPE-573: Educational Implications for Students With Physical and Health Impairments **4 credits**

This course provides teacher candidates with knowledge of physical and other health impairments and the impact of these

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

disabilities on the lives of individuals. Teacher candidates investigate means to enhance the quality of life of individuals 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. Practicum/field experience hours: 20. Fingerprint Clearance required. Prerequisite: SPE-522.

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.

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: 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: 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 include electronic properties of materials as well as their thermal, mechanical, acoustic, and optical properties. Prerequisite: PHY-122, PHY-122L, CHM-113, and CHM-113L. Co-requisite: STG-242L.

STG-242L: Science of Solid Materials Lab **1 credit**

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. Prerequisite: 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: PHY-121 and PHY-121L

STG-345: Thermodynamics & 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: PHY-122 and PHY-122L. Co-requisite: STG-350L.

STG-350L: Electromagnetic Fields & Optics Lab **1 credit**

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: PHY-122 and PHY-122L. Co-requisite: STG-350.

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

STG-380^Δ: 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^Δ: 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-403^Ω: Internship I **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. The internship can substitute for one of the following: ESG-421, ESG-435, ESG-462. Prerequisite: Permission of the Director of the Internship Program.

STG-404^Ω: Internship II **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. The internship can substitute for one of the following: ESG-421, ESG-435, ESG-462. Prerequisites: STG-403 and permission of the Director of the Internship Program.

STG-405^Ω: Internship III **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. Prerequisite: Permission of the Director of the Internship Program.

STG-406^Ω: Internship IV **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. Prerequisite: Permission of the Director of the Internship Program.

STG-407^Ω: Internship V **0 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.

STG-430: Engineering 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.

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. Prerequisite: CST-307, CST-307L, CST-315, and CST-315L, CST-320 and CST-320L, 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 Capstone Project 1. Students conduct extensive research, integrate information from multiple sources, and work with a mentor through multiple cycles of feedback and revisions. 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.

Systems Management (SYM)

SYM-400: Introduction to Database Structures **4 credits**

This course examines the design, development, implementation, and maintenance of relational database structures. Emphasis is on appropriate application and implementation. Prerequisite: BIT-200 or CST-110.

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

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 Applications **4 credits**

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 Statistics **4 credits**

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.

Tennis Management (TEN)

TEN-111: Player Development: Basic Principles **4 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.

TEN-112: Player Development: Youth Coaching and Cardio Tennis **4 credits**

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**

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 **4 credits**

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 **4 credits**

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 **4 credits**

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 **4 credits**

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 **4 credits**

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 **4 credits**

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**

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**

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.

Teacher Leadership (TCH)

TCH-517: The Engaged Mind **4 credits**

To better understand thinking, an educator must research current knowledge of the human mind and learn to assess a student's ability to think. This course addresses all five core propositions

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

of the National Board for Professional Teaching Standards (NBPTS).

TCH-518: Collegial Coaching **4 credits**

This course examines collegial coaching as a staff development model used to increase student learning, facilitate discussions among colleagues, and build trusting relationships among teachers. Students reflect on current practices or expand, refine, and build new skills by utilizing peer coaching. Students explore the interactive process of coaching between teaching professionals to share successful practices, problem-solve, and reduce isolation among teachers. Special emphasis is placed upon peer mentoring and the support of new teachers in their practice.

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. Fingerprint clearance not required.

TCH-524: Current Classroom Methods and Strategies **4 credits**

A growing body of research shows that teacher effectiveness is the single most important school-based influence on student achievement. Today's educator responds to complex and diverse needs of students in each classroom. This course provides the foundations for instructional design along with the tools for instructional planning. The alignment of curriculum standards to instruction and assessment is a major focus. Upon completion of this course, students have established a wide repertoire of methods and strategies that are research-based and easily modified to today's complex classroom.

TCH-525: Introduction to PLC **4 credits**

This course examines the research, rationale, and realities associated with the movement toward professional learning communities in schools. Students explore the history of professional learning communities, the research upon which they are based, the characteristics that differentiate them from other collaborative models, and their relationship to a variety of school reform initiatives. Special emphasis is placed upon what can be learned from previous implementations of the professional learning communities' framework and how future models may be developed that are more meaningful and effective.

TCH-526: Teaching, Learning, and Collaborative Structures in a Professional Learning Community **4 credits**

This course examines the shift in emphasis from teaching to learning and the role of the teacher as designer and facilitator in professional learning communities. Students explore the impact of shared instructional leadership and the importance of collaboration and teamwork.

TCH-531: Instructional Leadership **4 credits**

Students acquire a repertoire of skills that enable them to function comfortably and effectively in a changing learning environment. The course provides teachers with an understanding of the complexity of being a leader in times of change. Students

develop a vision of systemic change and demonstrate practical skills for ensuring smooth day-to-day operations within their school.

TCH-535: Legal Issues in Education **4 credits**

Teachers need to recognize potential legal issues, make informed judgments and decisions, and seek administrative and legal counsel, when necessary. This course provides teachers with a basic understanding of the legal principles directing the American school system, along with the legal case origins determining current classroom guidelines.

TCH-536: Classroom Engagement and Management **4 credits**

This course is designed to allow the teacher 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. Also EDU-536.

TCH-539: Introduction to Educational Research **3 credits**

This course provides teachers with 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. Teachers explore scientific reasoning and research design.

TCH-547: Data-Informed Decision Making for School Improvement **4 credits**

This course provides participants with a wide range of strategies to facilitate the process of school improvement through evidence-based inquiry. Students utilize systematic processes to describe the existing environment and areas of weaknesses in order to facilitate and promote continuous and sustainable school improvement through innovation and change.

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.

Technical Credits (TEC)

TEC-511: Technology Foundations in Education **4 credits**

This course introduces learners to NETS standards for students and teachers; digital citizenship and responsibility; legal and ethical use guidelines; and transitioning instruction to integrate technology. This course also addresses portfolio use professionally and with students. Technology dispositions, expectations, and guidelines are emphasized for being a 21st century educator.

TEC-516: Instructional Theories and Models in Technology Education **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.

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

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-516TE: 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-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.

TEC-520TE: Digital Literacy and 21st Century Learning **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.

TEC-524TE: K-12 Curriculum and Technology Integration for Current Practitioners **3 credits**

This course focuses on curriculum designs that include contemporary tools and resources to maximize student learning, inspire creativity, and foster innovation. This course also explores methods of engaging learners by using digital tools to address real-world issues and solve authentic problems. The use of tools such as social networking, presentation software, multimedia social spaces, blogs, and Web feeds to advance student learning is also addressed.

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-537: Strategies and Integration of Productivity Software **4 credits**

Emphasis of this class is placed on the sophisticated integration of software into teaching. Subjects include utilizing advanced word processing and database applications in the classroom, publishing software as teaching tools for interactive learning, and using Web freeware as a viable alternative in schools. This course encompasses the development of a final project that incorporates different technology uses.

TEC-538: Learning in the Digital Age **4 credits**

The focus of this course is to provide learners with instructional strategies using theories of brain compatible learning, multiple intelligences, emotional IQ, personality profiles to match learning styles and basic exploration of how to integrate instruction and curriculum with these theories, and the use of current technologies.

TEC-539: Digital Media in Education **4 credits**

In this course, students examine steps for planning, creating, and managing digital stories and presentations using software and tools for a variety of platforms. Attention is given to the use of digital Web software, use of media forms, and slideshows for instruction. Student activities tied to academic content standards and legal and ethical issues of displaying information on the Web are addressed.

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-542: Development and Design of Media in Educational Settings **4 credits**

Course participants 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 manipulation of images, social networking, podcasting, the use of digital cameras in the classroom, and integrating Web and print design into instruction.

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

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

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: 10 hours. Fingerprint clearance required.

TEC-546: Assessment and Technology **4 credits**

Participants explore various technology-based assessment tools used for formative and summative assessments. Students 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.

TEC-551: Multimedia Instructional Strategies **4 credits**

This course focuses on the effective use of multimedia in classroom instruction. Participants learn to select and evaluate appropriate multimedia resources, and correlate instruction to multimedia resources. This course addresses curriculum mapping and using backward design to unwrap the NETS standards.

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 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 assure timeliness and relevance. Experience will culminate in an electronic portfolio. Practicum/Field

experience: 60 hours. Fingerprint clearance required. Prerequisite: TEC-544.

Theater and Drama (TRE)

TRE-101: Theatre Participation I **1 credit**

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 credit**

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.

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

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 credit**

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-315: Technology for Theatre Educators **3 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-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^{^A}: 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. Prerequisite: Fingerprint Clearance.

TRE-330^{^A}: 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.

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-341: 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. Prerequisite: Fingerprint Clearance.

TRE-372: Costume Design **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. Prerequisite: TRE-130 and TRE-245 or permission of instructor.

TRE-401: Theatre Participation IV **1 credit**

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. Prerequisite: Fingerprint Clearance.

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-

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

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-325 or TRE-330 and TRE-335 or TRE-339.

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. Prerequisite: TRE-130.

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.

Teaching English to Speakers of Other Languages (TSL)

TSL-531: Foundations of Instruction for English Language Learners **4 credits**

This course provides the historical, sociological, political, and legal foundations of instructional programs for English language learners in the United States. This framework serves as a basis for understanding, comparing, and evaluating current language models and prototypes. This course also introduces students to primary theories of language learning and current methodologies and practices.

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-532TE: 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-534: Methods of Teaching English and Grammar to Speakers of Other Languages **4 credits**

In this course, students are instructed in immersion strategies, English language development strategies, and numerous

research-based methodologies in current practice. Students examine ways of organizing the classroom for optimal language learning, including especially cooperative learning. In the course setting, they also develop, practice, and assess language lessons that align with state and national standards for teaching English language learners.

TSL-536: English Linguistics **4 credits**

This course familiarizes students with the fundamentals of linguistic theory, including the morphological, phonological, and syntactic structure of the English language. Other topics introduced are pragmatics, semantics, sociolinguistics, historical linguistics, and first and second language acquisition. Although emphasis is placed on descriptive analysis of the English language, examples and illustrations from several language systems are used.

TSL-537: Teaching a Second Language in the Content Areas **4 credits**

The purpose of this course is to equip students with an awareness and sensitivity to the complexity and content-specific nature of language in curricular areas such as science, mathematics, and social studies. Students examine ways to integrate second language acquisition research (implications for teaching of comprehension, reading, and writing); literacy; and content area instruction in elementary, middle school, and high school settings. Students create content-based language lessons that address a variety of learner proficiencies and cultural experiences. Practicum/field experience hours: 10. Fingerprint clearance required.

TSL-540: Curriculum Development and Assessment **4 credits**

Teachers must be course developers as well as designers of instruction for daily and weekly lessons. In this course, students compare Sheltered Immersion Observation Protocol (SIOP) and Understanding by Design (UbD). They also fully examine assessment for the purposes of identification, placement, and instructional delivery. They subsequently design and fully develop the materials for a language unit that aligns with the state and national standards and current assessment 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-541TE: Linguistics **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-545: Teaching in a Pluralistic Society **4 credits**

To be an effective educator, one needs knowledge of how student diversity affects and influences instruction. This course gives attention to instructional models that have proven successful with students from diverse linguistic, cultural, racial, ethnic, economic, and intellectual backgrounds. It presents the major goals, principles, and concepts of multicultural education,

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including multiple perspectives in culture and history, as well as understanding cultural and individual differences in teaching and learning.

TSL-546: Language and Reading Acquisition Theories and Research **4 credits**

The focus of the course is to prepare classroom teachers to critically read published research on the current, central issues in the study of child language acquisition and the teaching of reading to speakers of other languages; to integrate those findings with personal experience in order to make reflective instructional decisions; and to participate in pedagogical research and theory building. Using the knowledge acquired during the course, students develop a study team to improve instructional practices based on research findings. The study team implements strategies and provides feedback and data on the application of the research findings. Practicum/field experience hours: 5. Fingerprint clearance required.

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, 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: TSL-532

TSL-550TE: School, Community, and Family Culture **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 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.

TSL-552: Literacy in Bilingual Settings **3 credits**

In this course, candidates will examine approaches to develop literacy in a second and native language in 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. Prerequisite: TSL-532.

TSL-558TE: 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-560^Ω: TESOL Practicum **4 credits**

TESOL students have direct participation and experience with English language learners—whether children or adults—at their chosen level of instruction. In a supervised classroom, they 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.

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-565TE: ELL and Bilingual Assessment **3 credits**

In this course, educators will explore the principles of (or for) 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-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, psycho-social and emotional needs of bilingual individuals and English language learners with disabilities. Emphasis will be placed on 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. Practicum/field experience hours: 10. Fingerprint clearance required. Prerequisite: TSL-532.

TSL-567TE: Methods of Teaching and Evaluating ELLs with Special Needs **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

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

students in special education, issues in relation to differentiating cultural and linguistic-related learning variations from special education issues, and instructional implications.

TSL-590^Ω: BLE or TESOL Practicum 3 credits

In this course candidates have direct participation and experience with bilingual or ELLs at their chosen level of instruction in 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^Ω: 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.

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^Ω 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 adaptation to the GCU academic environment, and the foundation for success in the education area of study.

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 Services 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 1–16 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 include the values of higher education, programming the mind for success, building interpersonal relationships, making the grade, decoding the professors, finance and time management, degree and campus planning, effective communication, confidence and leadership, health and fitness, stress management, keeping faith, and others.

UNV-492A^Ω: Internship I 2 credits

This internship provides an opportunity for students to practice principles learned in their liberal arts major, functional area, or

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

field of study, or to observe in an area being considered for graduate or professional school.

UNV-492B^Ω: Internship II **2 credits**

This internship provides an opportunity for students to practice principles learned in their liberal arts major, functional area, or field of study, or to observe in an area being considered for graduate or professional school. Prerequisites: UNV-492A.

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.

Worship Arts: Guitar (WGA)

WGA-111: Private Guitar Study I **1 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

This course in private applied keyboard study concentrates on keyboard technique and repertoire for the contemporary Christian musician.

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

Worship Arts: Percussion (WPA)

WPA-111: Private Percussion Study I **1 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

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 credit**

This course in private applied percussion study concentrates on percussion technique and repertoire for the contemporary Christian musician.

Worship (WOR)

WOR-510: Biblical Worship **4 credit**

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 credit**

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.

WOR-601: Theology of Worship **4 credit**

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 credit**

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 Arts (WSA)

WSA-110^o: Songwriting and Arranging I **1 credit**

This course consists of a seminar covering 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. Students develop techniques in writing and arranging for a variety of worship ensembles.

WSA-113: Class Voice **1 credit**

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 credit**

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-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 will explore the purpose and practice of media in worship. Students will learn to optimize media resources in churches of various sizes. A practical survey of settings will be 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.

WSA-161: Worship Summit I **0 credit**

This course offers students a guided experience in which they work collaboratively to write, perform, produce, and market worship music.

WSA-210^o: Songwriting and Arranging II **1 credit**

This course is a continuation of WSA-110 and consists of a seminar covering 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

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worship and spiritual formation in a variety of forms and styles. Students develop techniques in writing and arranging for a variety of worship ensembles. Prerequisite: WSA-110.

WSA-213: Class Guitar **1 credit**

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 credit**

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 related skills are also included in this course.

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-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-251: Digital Film Production and Editing **4 credits**

This course introduces students to the complete workflow of a digital production. This hands-on course explores the process of

creating media through preproduction, production, and postproduction.

WSA-252: Media Lighting and Design **4 credits**

This course introduces basic film lighting techniques for media productions. This hands-on course allows students to become familiar with important safety procedures and the uses of standard pieces of media lighting equipment. Prerequisite: WSA-251.

WSA-261: Worship Summit II **0 credit**

This course offers students a guided experience in which they work collaboratively to write, perform, produce, and market worship music.

WSA-310^Ω: Songwriting and Arranging III **1 credit**

This course is a continuation of WSA-210 and consists of a seminar covering 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. Students develop techniques in writing and arranging for a variety of worship ensembles. Prerequisite: WSA-210.

WSA-311: Worship Ensemble **0 credit**

This course provides students the opportunity to develop musical skills through rehearsal and performance in a worship ensemble. Participation in these groups is determined by audition. Prerequisite: Music department placement audition.

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 related skills are also included in this course. Prerequisite: WSA-215.

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 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-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

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

Bible schools, holiday performances, festivals, and contemporary Christian concerts.

WSA-353: Media Sound Recording and Mixing 4 credits

This course introduces students to the language and theories common to audio production used in media production. This hands-on course explores field location and studio audio recording and mixing. Prerequisite: WSA-251.

WSA-354: Motion Graphics 4 credits

Motion graphics introduces students to the elements and principles of motion design. Through this hands-on course, students plan, design, and produce title and credit sequences as well as self-contained productions. Emphasis is placed on type in motion and the relationship between graphics, movement, the message, and sound. Creative production includes storyboarding, composition, and legal resourcing of visual elements. Technical content includes utilization of software, compositing, filters, masks, and other effects. Specifications including file formats, pixel resolutions, frame rates, video and audio codecs, and storage systems are covered. Prerequisites: WSA-251 and WSA-353.

WSA-361: Worship Arts Project I 1 credit

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-373: Worship Arts Accounting and Finance 4 credits

This course is a study of the components of primary financial statements and how they are used to analyze the performance of organizations within the worship arts industry. Managerial accounting principles specifically relevant to decision making in worship arts groups and organizations are discussed. Financial topics related to the startup of worship arts organizations, such as revenue generation and venture financing, are covered. The course includes an introduction to the use of commercially available accounting software. Prerequisite: MAT-144.

WSA-374: Advertising and Promotion in Worship Arts 4 credits

This course provides an integrated marketing communications perspective for organizations in the worship arts arena. The course concentrates on the development of strategies for advertising and promoting worship arts concerts and other special events. Specific topics include budgeting, positioning, and creative and media strategies. Special emphasis is placed on digital and social media marketing techniques appropriate for worship arts organizations. Prerequisite: MKT-245.

WSA-410^Ω: Songwriting and Arranging IV 1 credit

This course is a continuation of WSA-310 and consists of a seminar covering 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. Students develop techniques in writing and arranging for a variety of worship ensembles. Prerequisite: WSA-310.

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.

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 your vocal and instrumental team, stage presence, and worship leadership. Students work on a final worship presentation demonstrating practical knowledge of planning worship and/or concert experiences.

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-423[‡]: 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-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-455: Website Creation and Administration 4 credits

This hands-on class introduces students to multiple resources available to quickly design, create, and maintain a website, either from a template or through custom-design. Emphasis is placed on systematic gathering and organization of content, and utilization

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

of a content management system for multiple web-authoring tools. Students investigate the connectivity of all social media platforms as related to the movement of text, image, sound, and video content between them. This course is not intended to make the student a web designer, but is intended for people who will regularly interact with sites by creating, editing, and updating content.

WSA-456: Digital Media Production Capstone 4 credits

This course provides the student with means to synthesize skills and resources gained while in the Worship Arts Digital Media program. Students create a capstone project representative of digital media in the worship or concert setting. Collaboration in creating digital media is emphasized.

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 credit

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. Prerequisites: WSA-361

WSA-475: Business Law in the Worship Arts Industry 4 credits

This course is a presentation of the basic legal system, its terminology, and principles as applied to the worship arts industry. Emphasis is placed on identifying and analyzing legal issues, the ramifications of those issues, and the means of limiting the liability of worship arts groups and organizations. Special emphasis is placed on contract law as it relates to the management of concerts, special events, and performance artists.

WSA-476: Human Resources and the Worship Arts 4 credits

This course is a study of the human resource management function in worship arts groups and organizations. The course provides an introduction to the principles of human resource management in the areas of staffing, organizational development, compensation and benefits administration, employment law, and employee relations, with specific attention to the unique principles that may apply in the case of worship arts performance artists and creative staff. Prerequisites: MGT-240 and WSA-475.

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 credit

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 credit

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 credit

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 credit

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 credit

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 credit

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 credit

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 counseling from a practical theology and biblical perspective. The course addresses counseling issues and problems that grow out of the

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

developmental process, disorders that begin during or are unique to adolescence, as well as intervention, prevention, and referral strategies. The course serves as “counseling first aid” where

students will learn basic helping skills. This course does not qualify students to be clinical or pastoral counselors. Prerequisite: YMN-305.

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