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HOME

2022-2023 Catalog & Student Handbook

Greg Peterson, President

Congratulations on your decision to pursue your education at Chandler-Gilbert Community College! We recognize that our world has changed with the global pandemic, and you are taking a big step in moving forward despite the many changes. We can do this together!

Whether you plan on earning a degree or a certificate, you are preparing to transfer to a four-year university, or you are looking to further develop in your career or personal life, CGCC can provide the path for you to reach your goals. With 68 associate degree and certificate programs, as well as transfer partnerships with over 40 universities—including Arizona State University, Northern Arizona University, and the University of Arizona—you'll find your fit at CGCC.

Since its founding in 1992, Chandler-Gilbert Community College has served thousands of students in the East Valley at its Pecos and Williams campuses, Sun Lakes Center, and Communiversity at Queen Creek. We pride ourselves on the excellence of our innovative faculty and staff, on our state-of-the-art facilities, on our broad array of campus life and events, and on our commitment to inclusion and diversity. At CGCC, you belong, and we are here to help you succeed!

The Catalog and Student Handbook is an important resource for you and contains the information you need as you begin your college experience. I recommend that you check out the 2022-2023 Academic Calendar, the Educational Programs, and the Student Rights and Responsibilities sections. Please feel free to contact me and any of our faculty and staff if there is anything we can do to help you. I look forward to seeing you on campus!

Welcome to Chandler-Gilbert Community College!

Greg Peterson, Ed.D.

President

ACADEMIC CALENDAR

2022-2023 Academic Calendar

Colleges may modify start dates in order to meet special needs. Dates listed below which are directly related to instruction refer to the traditional academic year model. Some courses may be offered over time periods for which these dates are not applicable.

Summer Semester 2022

Note: Subject to the 2022-2023 Catalog

Date	Event
Mon, May 2	Tuition due for Summer 2022 Semester
Mon, May 14	Final Grades Due for Spring 2022 Semester
Mon, May 30	Memorial Day (Colleges Closed)
Tues, May 31	Summer Semester Begins
Mon, Jul 4	Independence Day (Colleges Closed)
Mon, Aug 1	Tuition Due for Fall 2022 Semester
Thu, Aug 4	Summer Semester Ends

Fall Semester 2022

Date	Event
Fri, Aug 12	First Day of Faculty Accountability
Sat, Aug 20	Classes Begin
Mon, Sep 5	Labor Day (Colleges Closed)
Mon, Sep 19	Find a Class Opens for Spring 2023
Mon, Oct 3	Spring 2023 Priority Registration for Currently Enrolled Students
Sat+ Oct 8	Last Day for Withdrawal without Instructor's Signature
Mon++ Oct 10	Student Withdrawal with Instructor's Signature Begins
Mon++ Oct 10	Spring 2022 Open Registration Begins Application for December 2022 Graduation*
Fri, Nov 11	Veterans Day (Colleges Closed)
Thu-Sun Nov 24-27	Thanksgiving Day Holiday (Campus Closed)
Mon, Dec 5	Tuition Due for Spring 2023 Semester
Sun, Dec 11	Last Day of Regular Classes
Mon-Thur **, Dec 12-15	Final Exams Week
Fri, Dec 16	Mid-Year Recess Begins for Students
Fri, Dec 16	Fall Semester Ends (Last day of Faculty Accountability)
Sun-Mon, Dec 25-Jan 2	Mid-Year Recess (Campus Closed)

* For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.

** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.

+ Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages (<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/>)).

++ After the 7th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in Catalog Common Pages (<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/>)).

Spring Semester 2023

Date	Event
Tues, Jan 3	Employees Return
Mon, Jan 9	First day of Faculty Accountability
Mon, Jan 9	Clock Hour Student Classes Begin
Sat, Jan 14	Classes Begin
Mon, Jan 16	Observance of Martin Luther King, Jr. Holiday (Campus Closed)
Mon, Feb 20	Observance of Presidents' Day (Campus Closed)
Tue, Feb 21	Find a Class Opens for Summer/Fall 2023
Sat ⁺ , Mar 4	Last Day for Withdrawal without Instructor's Signature
Mon ⁺⁺ , Mar 6	Student Withdrawal with Instructors Signature Begins
Mon, Mar 6	Summer/Fall 2023 Priority Registration for Currently Enrolled Students. Application for May 2023 Graduation*
Mon-Sun, Mar 13-19	Spring Break
Mon, Mar 20	Summer/Fall 2023 Open Registration Begins
Mon, May 1	Tuition Due for Summer 2023 Semester
Sun, May 7	Last Day of Classes
Mon-Thur **, May 8-11	Final Exams Week
Fri, May 13	Commencement
Fri, May 13	Spring Semester Ends (Last day of Faculty Accountability)
Mon, May 30	Observance of Memorial Day (Campus Closed)

* For specific information concerning the last day to apply for graduation, individual class start dates, and final exams, consult the college of enrollment.

** Any classes meeting on Friday, Saturday or Sunday will have final examinations during their regular class time.

+ Through the 7th week, student may initiate an official withdrawal from course(s) without instructor signature (see Appendix S-7 in Catalog Common Pages (<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/>)).

++ After the 7th week, student must initiate an official withdrawal request from instructor and obtain their signature (see Appendix S-7 in Catalog Common Pages (<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/>)).

GENERAL INFORMATION

Vision

Our students are prepared to lead us into a promising and sustainable future.

Mission

We are a student-centered college that creates learning experiences and growth opportunities designed for our diverse communities.

Values

- Innovation through exploration
- Learning through experiences
- Growth through service
- Sustainability through engagement
- Inclusiveness through awareness

Student Development Philosophy

The goal of Chandler-Gilbert Community College is to assure student success. Success is defined as the accomplishment of, or the continued opportunity to accomplish, students' individual goals. The success of our students will be determined not only by their acquisition of knowledge and skills, but also by their personal growth and development. This would include intellectual development, multicultural awareness, aesthetic appreciation, physical wellness, emotional well-being, community responsibility, and values clarification.

Chandler-Gilbert Community College will provide the environment in which students can identify and pursue their goals. The following general institutional practices are necessary to ensure student success:

- a. To provide programs that assure student competence in specified academic and skill areas;
- b. To provide a full range and schedule of services to permit students to benefit from college programs;
- c. To provide simplified and clearly defined processes for admitting students, monitoring their progress and maintaining accurate academic records;
- d. To provide activities that encourage students to effectively interrelate with others in their college and communities;
- e. To provide opportunities for the development of self-esteem, personal identity, independence and self-direction;
- f. To provide coordination with secondary and postsecondary schools, and business and industry;
- g. To provide delivery of instructional services through alternative systems which prepare students to function in an increasingly technological and informational-based society; and
- h. To develop and implement a comprehensive staff development program to educate the staff in student development philosophy and practices.

Chandler-Gilbert Community College will assist students in initiating their own paths to success. The college recognizes that all students are unique and capable adults, responsible for directing their own development throughout life, and that the major responsibility for a student's development rests with the student. All faculty, administrators

and staff members of CGCC will support and contribute to the implementation of this student development philosophy.

Courses, programs, and requirements described in this catalog may be suspended, deleted, restricted, supplemented, or changed in any other manner at any time at the sole discretion of the college and the Maricopa Community College District Governing Board. This catalog does not establish a contractual relationship, but summarizes total requirements that the student must presently meet before qualifying for a faculty recommendation to the Governing Board to award a degree or certificate.

The Maricopa Community College District reserves the right to change, without notice, any of the materials—information, requirements, regulations—published in the catalog.

The Maricopa County Community College District (MCCCD) is an EEO/AA institution and an equal opportunity employer of protected veterans and individuals with disabilities. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, age, or national origin. A lack of English language skills will not be a barrier to admission and participation in the career and technical education programs of the District.

The Maricopa County Community College District does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. For Title IX/504 concerns, call the following number to reach the appointed coordinator: 480-731-8499. For additional information, as well as a listing of all coordinators within the Maricopa College system, visit www.maricopa.edu/non-discrimination (<https://district.maricopa.edu/consumer-information/non-discrimination-statements/>)

General Education Student Learning Outcomes and Indicators

Chandler-Gilbert Community College's General Education Student Learning Outcomes (SLOs) express a shared, college-wide articulation of expectations for all degree and certificate recipients. The SLOs represent a profile of our students at completion of their credential, and as such, also represent a promise to our students, their families, and our community.

Students acquire knowledge, attitudes, and skills through their coursework and in co-curricular activities. When students graduate with a degree or certificate, transfer to a university, or enter the workforce, they should have met the four Student Learning Outcomes presented below. The learning outcomes are intended to be student-centered and flexible enough to be measured using multiple forms of assessment across multiple fields of study and student experiences, both curricular and co-curricular.

In accordance with CGCC's mission and vision for student learning and development, it is the expectation that all academic disciplines will teach and assess the General Education Student Learning Outcomes in a manner appropriate to their field of study.

The assessment of student learning in all academic programs at Chandler-Gilbert Community College is a cornerstone measure of institutional effectiveness. The intent of the Student Learning Outcomes Assessment process is to evaluate the effectiveness of the General Education Program, and General Education courses, in developing the broad-based academic skills and values that exemplify a degree in higher education. Assessment planning and reporting is an essential component

of CGCC's process for measuring student learning in all of its course modalities. This process aligns with the Higher Learning Commission Criterion 4 by which CGCC is measured on a routine basis.

Student Learning Outcomes directly describe what a student is expected to learn as a result of participating in academic activities or experiences at the College. They focus on knowledge gained, skills and abilities acquired and demonstrated, and attitudes or values changed. Our Student Learning Outcome assessment approach is embedded in a larger practice of continuous improvement that values authentic and meaningful evidence in planning and implementing instructional changes with the ultimate goal of improving student learning.

In general, the Student Learning Outcomes Assessment process consists of three major components:

- Defining the most important goals for students to achieve as a result of participating in an academic experience (outcomes).
- Evaluating how well students are actually achieving those goals (assessment).
- Applying the results to improve the academic experience (closing the loop).

The faculty of CGCC have identified four General Education Student Learning Outcomes:

Critical Thinking

Critical thinking is the process of appropriately analyzing, evaluating, applying and synthesizing information. It is characterized by reflection, connection of new information to existing knowledge and reasoned judgment.

Indicators

- CT.1: Application
 - Students can apply knowledge and skills in a different context or situation or task.
- CT.2: Analysis
 - Students can organize information into its component parts.
 - Students can identify relationships within information and its component parts.
- CT.3: Synthesis
 - Students can assemble parts or components to create a whole.
 - Students can originate through the use of parts or components.
- CT.4: Evaluation
 - Students can assess the relative value of ideas and information.
 - Students can justify their conclusions.

Oral Communication

Effective speech communication is the purposeful development, expression, and reception of a message through oral and nonverbal means.

Indicators

- OC.1: Message Delivery
 - Adapt the delivery of the message in context.
 - How thorough and with what completion have students adapted the delivery of the message in context?
- OC.2: Audience Analysis

- Adapt the message for an audience.
- How effectively have students adapted the message for an audience?
- OC.3 Message Purpose
 - Adapt the message to meet the purpose(s)
 - How effectively and consistently have students adapted the message to meet the purpose(s)?
- OC.4: Verbal Interaction
 - Adapt effective language in the conveyance of ideas and information.
 - How effectively and with what quality have students adapted language in the conveyance of ideas and information?
- OC.5: Non-Verbal Interaction
 - Utilize Paralanguage (tone, rate, volume, inflection, etc.).
 - Utilize Kinesics (facial expression, gestures, and overall movement).
 - How well can students apply Paralanguage and Kinesics?
- OC.6: Presentation Graphics Support
 - Apply graphics to support presentation.
 - How effectively do students apply graphics support to the presentation?

Information Literacy

Information literacy is the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning.

Indicators

- Inquiry Process
 - IL.1.A: Adapt the delivery of the message in context.
 - IL.1.B: How thorough and with what completion have students adapted the delivery of the message in context?
 - IL.1.C: Formulate questions for research based on gaps or on reexamination of conflicting information.
 - IL.1.D: Determine an appropriate scope of investigation.
 - IL.1.E: Organize information in meaningful ways.
 - IL.1.F: Determine the initial scope of the task required to meet their information needs.
 - IL.1.G: Match information needs and search strategies to appropriate search tools.
- Contextual Authority
 - IL.2.A: Monitor gathered information and assess for gaps or weaknesses or multiple perspectives.
 - IL.2.B: Analyze materials for audience, context, and purpose.
 - IL.2.C: Determine the credibility of sources based on author, content, format, assignment need, etc.
- Creation Process
 - IL.3.A: Contribute to scholarly conversation at an appropriate level.
 - IL.3.B: Synthesize ideas gathered from multiple sources.
 - IL.3.C: Draw reasonable conclusions founded on the analysis of information.
 - IL.3.D: Develop an understanding that their own choices impact the purpose for which the information product will be used and the message it conveys.
- Ethical Use

- IL.4.A: Give credit to ideas of others through proper citation and attribution.

Personal Development

Personal development involves engaging in life-long learning processes resulting in behaviors promoting student success as well as contributing to building a more equitable, empowered community and society in general through informed decision-making and responsible actions.

For proficiency, students will demonstrate the following as appropriate to discipline, course, or level of engagement:

Indicators

- PD.1: Recognizing learning as part of a process that includes continued development while identifying lessons learned and strategies for improvement.
- PD.2: Setting and monitoring short term and long-term goals.
- PD.3: Recognizing the role of behaviors, emotions, attitudes, and relationships in personal, academic, and community success and well-being.
- PD.4: Engaging in reciprocal process(es) that lead to identifying and seeking deeper understandings of community needs and stakeholders.
- PD.5: Contributing to the building/shaping of a more equitable, empowered community and society by developing positive relationships based on mutual respect and understanding.
- PD.6: Collaborating with community stakeholders identifying/creating plan(s) of action responding to identified needs based on informed decision-making.
- PD.7: Identifying actions taken to better one's self, community, and society based on informed decision-making.
- PD.8: Engaging in ethical and responsible actions that are mutually beneficial to all stakeholders.

Each of the Student Learning Outcomes are operationalized by a series of outcome indicators. Student performance on these indicators is measured to determine achievement of Student Learning Outcomes. Residential faculty members in each discipline have selected the outcome(s) and indicators for each of our courses in accordance with their Division Academic Assessment Plans. As courses are assessed at CGCC, its Dual Enrollment counterparts must also be assessed. Additionally, faculty have projected course assessment "cycles" for coming semesters and academic years.

Partnerships

The Maricopa Community Colleges have partnerships with the Arizona public universities (Arizona State University, Northern Arizona University, and the University of Arizona), and more than 40 other institutions – nationally and internationally. These transfer partnerships assist students in making a smooth transition from one institution to the next by maximizing your Maricopa credits. In addition, many university partners offer Maricopa graduates dedicated advisement as well as financial incentives such as tuition and transfer scholarships, waiver of application fees, textbook waivers, and special tuition incentives for military personnel. Visit maricopa.edu/transfer/ for more details.

Affiliations & Associations

Accreditation Commission for Education in Nursing

The Nursing Program at Chandler-Gilbert Community College is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA, 30326, 404-975-5000.

American Board of Funeral Service Education (ABFSE)

The Associate of Applied Science degree in Mortuary Science at Chandler-Gilbert Community College is accredited by the American Board of Funeral Service Education (ABFSE), 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097, 816-233-3747. www.abfse.org (<http://www.abfse.org>)

National Board Examination pass rates, graduation rates, and employment rates for this and other ABFSE-accredited programs are available at www.abfse.org (<http://www.abfse.org>) in the Directory of Accredited Programs.

Higher Learning Commission

Chandler-Gilbert Community College is accredited by the Higher Learning Commission (hlcommission.org (<http://hlcommission.org>)), an institutional accreditation agency recognized by the US Department of Education.

Federal Aviation Administration

The Aircraft Maintenance Technology Programs, designed to prepare students for licensure as certified airframe and powerplant (A&P) mechanics, are certified by the Federal Aviation Administration (FAA), Part 147.

The Aircraft Flight Technology Programs, designed to prepare students to apply technical knowledge and skills to prepare them for Commercial Pilot Certificate with Single Engine Airplane Land Rating and Instrument Rating, and the Multiengine Rating are certified by the FAA, Part 141, through a partnership with the UND Aerospace Foundation. All aviation programs are housed in the Aviation and Technology Center at the Williams Campus, 7360 East Tahoe Avenue, Mesa, AZ 85212-0908.

UND Aerospace Foundation

CGCC and the University of North Dakota Aerospace Foundation have partnered to establish a joint flight training program at the Williams Campus. The University of North Dakota program is an internationally recognized leader in aviation education. CGCC's partnership with UND Aerospace presents a tremendous opportunity for students desiring a career in aviation flight.

Pecos Campus

2626 East Pecos Road
Chandler, AZ 85225-2499
480-732-7000

The Pecos Campus of CGCC is located on Pecos Road between Cooper and Gilbert Roads in Chandler. CGCC's original campus opened in 1987

and is home to numerous associate degrees, university transfer, general studies, occupational, and special interest courses and programs.

Pecos Campus Map (<https://www.cgcc.edu/locations/pecos-campus/>)

Directions: The Pecos Campus is located just north of the San Tan freeway (Loop 202 south) between the Cooper and Gilbert road exits.

Williams Campus

7360 East Tahoe Avenue
Mesa, AZ 85212-0908
480-988-8000

The Williams Campus of CGCC is near the Phoenix-Mesa Gateway Airport on Sossaman between Ray and Williams Field roads. Opened in 1995 on the former Williams Air Force Base, the Williams Campus is a comprehensive campus offering associate degrees, certificates and a wide array of general studies and university transfer courses. The campus neighbors ASU Polytechnic for the benefit of students interested in completing their four-year degree in one location. Housing is available.

Williams Campus Map (<https://www.cgcc.edu/locations/williams-campus/>)

Directions: The Williams Campus is located just west of the Phoenix-Mesa Gateway Airport between Power and Sossaman roads.

Sun Lakes Center

25105 South Alma School Road
Sun Lakes, AZ 85248-6101
480-857-5500

Sun Lake Center Map (<https://www.cgcc.edu/locations/sun-lakes-center/>)

The Sun Lakes Center of CGCC is located at the northeast corner of Alma School and Riggs in Sun Lakes. The Center focuses on the lifelong learning needs of the mature adult population in the Southeast Valley.

Communiversity at Queen Creek

21740 South Ellsworth Road
Queen Creek, AZ 85142
480-726-4182

Communiversity Map (<https://www.cgcc.edu/locations/communiversity-queen-creek/>)

Chandler-Gilbert Community College at Queen Creek is located at the intersection of Ocotillo and Ellsworth roads next to the Queen Creek Library. Students can enroll, receive advisement, register for any CGCC class and attend classes at this downtown location.

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Academic Advisement

Identify, plan, and achieve your career and academic goals with a Chandler-Gilbert Academic Advisor. Academic Advising Services at CGCC provide students guidance and support to identify a Field of Interest and program of study which will align with your skills, interests, and values and prepare you to enter the workforce, and/or transfer to a university, and complete a degree and certificate at Chandler-Gilbert. CGC advisors will help you navigate college resources, understand your program and degree requirements, and connect you with university transfer options.

All first-time-to-college students need to attend Coyote Kickoff, which provides new students with initial career and academic advising, orientation, and first semester planning. Students are encouraged to choose a Field of Interest (FOI) and program of study early, so they can be assigned an academic advisor for future support and academic planning.

Continuing CGC students and students transferring to CGC from another college or university that have earned 15 or more college-level transfer credits, are encouraged to meet individually with an academic advisor aligned with their Field of Interest. Appointments are available online and in-person.

Academic Advising Services are available virtually and online at [cgcc.edu/advisement](https://www.cgcc.edu/advisement) (<https://www.cgcc.edu/student-resources/academic-advisement/>), and in-person at the Coyote Center Building & Bluford Hall on the Pecos and Williams Campuses.

Admissions, Records, and Registration

Admissions, Records, and Registration services are located in the Coyote Center at the Pecos Campus and in Bluford Hall at the Williams Campus. The office provides the following services:

- Assists with information about accessing the [my.maricopa.edu](https://www.maricopa.edu) (<https://www.maricopa.edu/students/>) Online Student Center
- Processes admissions forms, class registrations, and withdrawals
- Evaluates transfer credit and other credit from prior learning
- Verifies credits for graduation
- Determines residency for tuition purposes
- Verifies athletic eligibility
- Processes official transcripts and enrollment verification requests
- Hears Admissions and Standards appeals, including refund issues (requests must be in writing)

For additional information, visit admissions or call 480#732#7320 at the Pecos Campus and 480#988-8000 at the Williams Campus.

Athletics

Chandler-Gilbert would like to welcome students to the Coyote athletic programs. CGCC is looking forward to another successful season of intercollegiate competition in the Arizona Community College Athletic Conference. CGCC student athletes not only distinguish themselves on the athletic fields, but also in the classroom, setting high standards for future CGCC athletes.

Volleyball and basketball games are played at the CGCC Coyote Center. Softball and baseball games and soccer matches are played on fields at the Pecos Campus.

For more information, visit athletics (<https://cgccathletics.prestosports.com/landing/index/>) or call:

Contact	Phone Number
Women's Volleyball	480-732-7365
Men's Baseball	480-732-7364
Men's & Women's Golf	480-732-7073
Men's & Women's Soccer	480-732-7363
Women's Basketball	480-732-7357
Men's Basketball	480-732-7366
Softball	480-732-7168
Athletic Trainer	480-732-7003
Athletic Director	480-732-7177
Academic Advisement for Athletes	480-732-7364

Bookstore

Students are able to purchase books and supplies in person at the bookstore on the Pecos Campus.

The Pecos Campus bookstore building is located northwest of the Student Center (Building SC).

Students may also purchase textbooks online and have them shipped directly to their homes at chandler.bkstr.com (<http://chandler.bkstr.com>).

In addition to books and supplies, the bookstores also carry gifts, clothing, book bags, bus passes, graduation supplies, and other items.

The Bookstore allows students to pay with cash, check, or major credit cards. Complete payment and refund policies are posted at the Pecos Campus Bookstore and on the website <https://www.bkstr.com/chandler-gilbertccstore/home> (<https://www.bkstr.com/chandler-gilbertccstore/home/>).

Call 480-732-7352 for more information about the Pecos Campus Bookstore.

Career and Technical Education

Career and Technical Education (CTE) works collaboratively and responsively with our community to meet the needs of our diverse student population in preparing them for life, work, and careers. We provide quality resources and support to educators and students that enhance classroom learning. Additionally, we support campus and community activities that enhance academic achievement, technical skills, and productive citizenship to build stronger communities. To contact CTE or to find more information on how this area can assist you, please call 480-732-7361.

Career Services

Career Services helps students with career planning, goal setting and job seeking strategies to prepare them for the workforce. Students can schedule an appointment with a Career Advisor for choosing a major that aligns to their academic pathway, exploring careers, writing or editing their resume and/or cover letter, learning new strategies to search for jobs, or preparing for an interview. Support is also available to connect students with employers, find work-based experiences that connect to their major, attend career fairs and events, or match to jobs and internships based on their skills and interests using Maricopa

Pipeline AZ, MCCC's integrated virtual platform. cgcc.edu/careers (<http://cgcc.edu/careers/>)

College Police Regulations Identification

College Police personnel are authorized to ask any person on campus for proper identification, should the need arise. Students failing or refusing to identify themselves properly will be:

- Asked to leave the campus (if conduct or behavior warrants such action), and
- Reported to the Vice President of Student Affairs.

Weapons

All firearms, explosives, knives, or instruments that can be construed as dangerous weapons are prohibited on campus. All persons bringing firearms or other weapons for classroom demonstrations or any other academic reason are required to bring them to the Public Safety Department for examination.

Motor Vehicles

College regulations governing motor vehicles operated by CGCC students shall be under the jurisdiction of the college administration.

Vehicle Damage or Loss

Chandler-Gilbert Community College assumes no responsibility for damage to motor vehicles, or for any loss while vehicles are parked or operated on or near the campus.

Vehicle Registration

Williams campus students and all employees who drive motor vehicles on any CGCC campus are required to register the vehicles that may be used on college property with Enrollment Services. Individuals who subsequently purchase or trade their registered vehicles must register the new vehicles. Parking in Employee, Disabled, Carpool or other specially designated stalls requires the appropriate decal and or indicator be displayed. Violators will be subject to citations and associated fines. Designated Visitor parking is available to non-affiliates of the college who are conducting temporary business on college property.

College Traffic Regulations

The following college traffic regulations are applicable to all members of the college community, including students, faculty, staff, and visitors:

- Maximum speed limit on campus is 15 m.p.h.
- Students and employees who have been issued parking permit decals following vehicle registration with the Public Safety Department must display the decals in accordance with current regulations.
- Drivers must observe and comply with stop signs, pavement arrows, right-turn-only signs, and other traffic control devices. All vehicles must stop at marked crosswalks to yield to pedestrian traffic within the crosswalks.
- Persons driving on campus must follow directions given by Public Safety officers and furnish student or other identification when so required.

- e. Students may park in any parking space except those marked Visitors, Handicapped, Maintenance, Employees, No Parking, or any area with a red or yellow curb.
- f. Persons having a Handicapped designation on their vehicle may use any marked space on the campus, including those marked Handicapped, except those areas with red or yellow curbs.
- g. No vehicle other than an emergency vehicle may be parked along red curbs or in striped areas. These are fire-hazard and safety zones, and violators will be towed away without warning at the owner's expense.
- h. No vehicle may be parked in driveways, where signs indicate No Parking, or in areas not specifically marked for parking.
- i. Visitors may use student zones on a temporary basis. Visitor permits may be obtained from the Public Safety Department.
- j. In angled parking spaces, no vehicle may be parked in a direction opposite the normal direction of traffic.
- k. Parking of motorcycles, mopeds and bicycles:
 - Students are urged to exercise care in securing their personal property, including motor vehicles, bicycles, mopeds, and motorcycles.
 - Motorcycles and mopeds may be parked only on crossbars. Bicycles must be parked in existing bike racks only. Mopeds, bicycles, and/or motorcycles that are found chained or affixed to trees, buildings, or light posts are subject to having their chains cut and being removed to the Public Safety Department. Owners will be responsible for the cost of the lock or cut chain.

Computer Labs

Currently enrolled students who require computer resources to complete class assignments have access to open Computer Labs located on the Pecos Campus in Bradshaw Hall, room BRD123, and on the Williams Campus in Bridget Hall inside the library. Open Computer Labs feature self-paced learning environments in which students study course materials, complete assignments, and research information. Computer Lab learning associates and student assistants are available for general questions. Students who need assistance with assignments or materials related to a specific class should contact their instructors. Access to Computer Lab equipment is on a first-come, first-served basis. Hours of operation may vary each semester, with greatest usage occurring during early morning hours. Students should call 480-732-7221 or visit www.cgc.edu/cic (<http://www.cgc.edu/cic/>) for additional information.

Counseling

Counseling is a comprehensive academic and service program designed to promote student success and personal development at Chandler-Gilbert Community College. As a professional discipline, Counseling is based on values that include respecting the dignity of all people, celebrating the dimensions of personal identity that make us unique, recognizing and building on one's strengths and abilities, and empowering individuals to identify and pursue their own life goals. We appreciate that each student enters college with different life experiences, whether entering directly from high school or returning to school after years of work or military service. It is our goal to help students to overcome challenges they may be facing and help them achieve success in their academic, career, and personal goals.

On the Pecos campus, Counseling is located in the Bradshaw Hall, room BRD101. At Williams, we are located in Bluford Hall, room BLUF141. Find

us online at www.cgc.edu/counseling (<http://www.cgc.edu/counseling/>) for information about hours, maps, and current program offerings.

CAP Courses

To support the next generation of counseling and other human services professionals, CGCC now offers an Associate of Arts, Emphasis in Counseling and Applied Psychological Science (CAP). These courses include CAP120 Introduction to Counseling, CAP220 The Counselor in a Multicultural Society, CAP240 Introduction to Counseling Skills, and CAP260 Career and Professional Preparation for the Helping Professions. Learn more at www.cgc.edu/degrees-certificates/counseling (<http://www.cgc.edu/degrees-certificates/counseling/>).

CLASI Workshops

In addition to teaching CPD courses, our Counseling Faculty also offer a variety of CLASI (Classroom Academic Skill Integration) workshops each semester. These interactive workshops, which can be attended in person, offer students the opportunity to learn about common academic challenges and techniques to overcome them. Topics offered include: Motivation & Procrastination, Time Management, Listening & Note-taking, Transition to College, and Test Anxiety.

Individual Student Support

Outside the classroom, students sometimes need additional support to manage specific concerns or issues that are hindering their best efforts to be successful. Our Counseling faculty provide free, appointments and consultations for enrolled students.

Academic Counseling

- Balancing life, work, and school demands
- Study strategies
- Time management
- Overcoming procrastination
- Test anxiety

Career Counseling

- Interpretation of career assessments
- Exploring interests, values, and skills related to the world of work
- Selecting fields of interest, majors and career pathways
- Goal setting and decision-making

Personal Support

- Solution-focused problem solving
- Successful college adjustment
- Stress management and coping skills
- Support in managing emotional, social, and physical distress

Crisis Support

- Supporting students, faculty, and staff to promote the safety and well-being of the campus community

Referrals

- Provide referral information for students seeking clinical mental health services, psychological assessments, and other community resources

Online Resources

- To help students manage and overcome life obstacles, we have gathered valuable resources both at CGCC and within the community.

These are located at www.cgc.edu/counseling (<http://www.cgc.edu/counseling/>) under the Resources tab. They include the following areas and more: Suicide/Crisis Support, Food & Basic Need Assistance, Domestic & Dating Violence and Mental Health Resources. For more information, or to schedule an appointment, please refer to our website at www.cgc.edu/counseling (<http://www.cgc.edu/counseling/>), or call 480-732-7158 during normal business hours.

Course Placement

Our colleges now use multiple placement options to determine college course placement for students. Students planning to take English, Reading, and/or Math will be advised to register for the appropriate course(s) within the first two years of enrollment based on District-approved placement methods. You can find more information regarding placement at: <https://www.maricopa.edu/future-students/assessment-placement> (<https://www.maricopa.edu/future-students/assessment-placement/>)

Disability Resources & Services

Please see Student Support and Disability Resources & Services (p. 20).

Dual Enrollment

Dual Enrollment provides an opportunity for eligible high school students to take college level courses at their high school. These courses allow students to earn both high school and college credit for the same class. Classes meet at the high school during the regular school day and are taught by college certified instructors using approved curriculum and texts. The credits earned may be used toward an Associate's degree, and most can transfer to universities. Dual Enrollment courses let students begin their college career in a convenient and affordable way. These courses enhance learning and promote higher level cognitive skills. Best of all, transition from high school to college begins early and occurs in a familiar and comfortable environment.

To learn more about Dual Enrollment offerings with our partner school districts please visit www.cgc.edu/dual (<http://www.cgc.edu/dual/>) or call 480-732-7006.

Early College

The Office of Early College provides programs for K-12 students. The office oversees the following programs:

ACE Program

The ACE Program (Achieving a College Education) is an early college, two-year tuition scholarship college preparation program for high school students. The mission of the ACE Program is to increase the college success rate of underrepresented, financially disadvantaged, and/or first-generation college-bound students. Students must demonstrate evidence of commitment to completing the program while attending high school. Students may apply directly through this office at myaceadvisor@cgc.edu or through the ACE contact at their high school.

See <https://www.cgc.edu/CourseDescriptions> for current course description information.

Hoop of Learning (Native American Students)

The Hoop of Learning program at CGCC is designed to provide educational opportunities for Native American students in high school grades 9 through 12 to earn college credits. Native American high school students can apply with CGCC or through their local high school counselor. For more information, please email the Early College Program at myaceadvisor@cgc.edu.

Special Events

The Office of Early Outreach works with a variety of K-12 and community partners to create college-bound events for K-12 students. An example of our successful partnerships with the Chandler Unified School District is a program called Destination College. Destination College is a summer school program for 3rd, 4th, and 5th graders. Students learn about the importance of reaching their educational goals while they are still in elementary school. For more information, please call 480-732-7205.

Electronic Resources

Students, faculty, and staff use their MEID and associated password to access the Library's electronic resources from off campus.

Enrollment Services

Enrollment services, located on the Pecos Campus in the Coyote Center, and Bluford Hall at our Williams location, includes Academic Advisement; Admissions, Records, and Registration; Financial Aid, International Education, Veteran Services, Early College (ACE, Hoop of Learning and Dual Enrollment), Career Services; New Student Orientation; and Recruitment Services. These departments help ensure student success by facilitating the advisement, registration and retention of students.

Facilities Services

The Facilities Services office is responsible for creating and maintaining a physical environment conducive to effective teaching and learning. To report issues with buildings or college grounds, call 480-732-7285.

Financial Aid and Scholarships

The Financial Aid Office, located in Coyote Center at the Pecos Campus and in Bluford Hall at the Williams Campus, is responsible for the following student services functions:

- Financial aid
- Scholarships
- Federal Work-Study

Financial Aid Answer Center telephone number is 480-731-8900 and available 24 hours/7 days a week.

Financial Aid

CGCC is committed to providing support to students with financial need. However, students are expected to share in the expenses of attending college. The purpose of the CGCC Financial Aid Office is to assist with this responsibility by determining students' financial need and awarding assistance to eligible students. This is accomplished by evaluating all aid applications through the use of a standard financial needs analysis

system that determines how much students and/or their families can afford to contribute toward the college costs. Several types of federal financial aid are available. These include:

- Pell Grant
- Supplemental Education Opportunity Grant (SEOG)
- Direct Parent Loan (PLUS)
- Work-Study – part-time employment on campus

Students must apply and qualify for financial aid each academic year. In order to be considered for assistance, students need to complete the Free Application for Federal Student Aid (FAFSA). Once the financial aid application has been completed and you are admitted to CGCC, your financial aid eligibility will be evaluated.

Some funds are awarded on a first-come, first-serve basis, so it is best to apply as early as possible before the semester of attendance. Students should complete an application online at <https://studentaid.gov/h/apply-for-aid/fafsa> (<https://studentaid.gov/h/apply-for-aid/fafsa/>) as soon as possible each year in order to be considered for all available fund programs. Students must be making satisfactory academic progress in order to receive financial aid. Contact the Financial Aid Office for specific details: 480-731-8900 or visit the Financial Aid website at <https://www.cgc.edu/admissions/financial-aid> (<https://www.cgc.edu/admissions/financial-aid/>).

Scholarships for Students

Scholarships are available for prospective students as well as currently enrolled students. Because the applications and deadlines vary for each scholarship, applying early is critical. Completion of the federal financial aid application may be required for some scholarships. Visit <https://www.cgc.edu/admissions/financial-aid/scholarships> (<https://www.cgc.edu/admissions/financial-aid/scholarships/>) or contact the Financial Aid Office for applications and information.

Federal Work-Study

Federal Work-Study positions are coordinated through the Financial Aid Office and Career Services on the Pecos Campus. Visit <https://www.cgc.edu/admissions/financial-aid/types-financial-aid/federal-work-study> (<https://www.cgc.edu/admissions/financial-aid/types-financial-aid/federal-work-study/>) for more information.

Food Services

CGCC has two full-service dining options: The Coyote Cafe is located in Bradshaw Hall, Room BRD133, at the Pecos Campus and the Roadrunner Cafe is located in Bridget Hall, BRID138, at the Williams Campus. A coffee shop, is located near the Ironwood Courtyard at the Pecos Campus. Food service for the CGCC community is provided Monday-Friday, but hours of operation may vary. Food Services also provides catering for special events, banquets, and meetings. The manager is glad to hear students' comments and assist with catering arrangements by calling 480-732-7362.

Information Technology (IT)

Information Technology is located on the second floor of the Library at the Pecos campus and in Bluford Hall at the Williams Campus. IT plans, designs, and integrates various college technologies in support of Student Success. IT performs ongoing operational support for

computing, network, application, and media services. This includes technical support in the following areas:

- Enterprise Systems and Infrastructure
- Client/Network Support
 - Computer Hardware Repair
- Desktop Applications
- IP Telephony
- Business Process Automation
- Web-based Applications
- Photo and Videography
- Project Management

IT provides technical support at the Pecos Campus, Williams Campus, Sun Lakes Center, and the Community at Queen Creek. CGCC's network design provides connectivity to a variety of environments including Internet and wireless, in support of a multitude of computing technologies. A dedicated and professional team delivers technical services, implementation, and support for instructional and administrative systems.

For technical assistance, please call the Information Technology Helpdesk at 480-732-7025 or visit www.cgc.edu/IT (<http://www.cgc.edu/IT/>).

Institutional Research

The Institutional Research office, located on the Pecos Campus in Mesquite Hall (MSQ), provides assistance to academic and student affairs by collecting and analyzing information used to improve the quality of education and services and ensure student success. The office accomplishes this task by coordinating the development and implementation of the college strategic plan, ensuring stakeholders have access to meaningful, reliable and timely analytics that empower informed decision-making and drive strategy, and providing appropriate research support to faculty and staff to improve the delivery of products and services. Call 480-857-5118.

International Education Program

The International Education Program (IEP) aims to support an environment that encourages global understanding, appreciation and citizenship by providing support services and programs that enhance academic, cultural and social international efforts at the college and the community. IEP is committed to providing services and support for students, faculty, and staff who are interested in a global dimension to their learning, research and/or teaching. Student support services and activities include immigration advisement, admissions, orientation, ESL advisement, intercultural adjustment, leadership and adjustment workshops. IEP also provides support for the Intercultural Exchange Club and organizes cultural activities and events to enhance cross-cultural understanding among domestic and international students on campus. IEP is located in the Coyote Center at the Pecos Campus. For more information, visit www.cgc.edu/international (<http://www.cgc.edu/international/>) or call 480-726-4236.

Learning Center (Tutoring)

The Learning Center mission is to support students' academic learning by providing free tutoring and resources to reinforce and supplement classroom instruction and to assist students to achieve academic

success. While the emphasis is on providing writing, mathematics, and science support, services are available for a wide range of academic courses at CGCC. Tutoring services are available on a drop-in, in person basis for many courses, by appointment for select courses and online. Resources include workshops, software, and print materials. Students must be enrolled at CGCC in the class for which they are seeking assistance. For more information, visit www.cgcc.edu/lc (<http://www.cgcc.edu/lc/>) or call 480-732-7231.

Library

Pecos

Monday-Thursday, 7:30am -9:00pm

Friday, 7:30am-2:00pm

Saturday, 8:00am-2:00pm

Sunday, closed

Circulation: 480-857-5102; Reference: 480-857-5100

Email: circ@cgcc.edu

Williams (Bridget Hall)

Monday-Thursday, 8:00am-8:00pm

Friday, 8:00am-2:00pm

Saturday & Sunday, closed

Circulation: 480-988-6611, Reference: 480-988-8275

Email: circwil@cgcc.edu

Visit www.cgcc.edu/student-resources/library (<http://www.cgcc.edu/student-resources/library/>) for the most up-to-date hours and holiday closure information.

The libraries at Chandler-Gilbert Community College offer a full-range of library services that support the academic mission of the College. The libraries provide access to a full-range of information in a variety of formats including web-based, traditional print and multimedia. Library faculty teach the identification, location, and critical evaluation of the dynamic information world. We also provide virtual and face-to-face reference assistance. Library staff assists patrons with interlibrary loan requests, course reserves, and study room reservations. The Library has 10 conference/study rooms; three library instruction classrooms; access to subscription databases; magazines, journals, and newspaper display and storage; and wireless Internet access.

Maricopa Community College Police Department

Maricopa Community Colleges Police Department are responsible for maintaining a safe, orderly, and peaceful atmosphere on campus to contribute to student development and success. It was formed with these objectives in mind, and is staffed by qualified safety personnel, including certified police officers. Maricopa Community Colleges Police are located in the Public Safety Building (PSB), at the Pecos Campus and in Bluford Hall at the Williams Campus. Students are encouraged to inform the on-duty officer about any situation that might warrant support for safety reasons (stalkers, potentially violent situations, orders of protection, etc.).

Services to students, faculty, and staff include:

- Providing safety escorts to and from parking lots upon request
- Assisting students, faculty, and staff in case of accident or injury on campus

- Providing minor assistance to motorists with disabled vehicles
- Delivering emergency messages from family to students in classes
- Enforcing parking regulations on campus
- Providing Lost and Found services
- Administering college vehicle use
- Patrolling campus
- Encouraging student, faculty, and staff participation in safety and crime prevention programs

For additional information, call 480-732-7280 at the Pecos Campus or 480-988-8888 at the Williams Campus. Information on crime prevention programs, safety policies, incident reports, and CGCC crime statistics for the previous three years can be found at www.cgcc.edu/safety (<http://www.cgcc.edu/safety/>).

Emergencies

In the event of emergencies on campus, contact the Maricopa Community Colleges Police Department at 480-784-0911. Emergency telephones are located at the entrances to all parking lots of the Pecos Campus and ring directly into the Public Safety Department. Call 911 in the event of a life-threatening emergency.

Emergency Notification System

Chandler-Gilbert Community College uses a mass notification system (RAVE) in order to communicate with students and employees in the unlikely event of an emergency at the college. Student contact information (cell phone number, home phone, email address etc.) provided at the time of registration will automatically be used in the college notification system. Be assured, that students and staff will only be contacted for emergency purposes. The system will not be used for other purposes.

RAVE Guardian App

Students can download the RAVE Guardian App from the Apple App Store or Google Play. This app helps to improve:

- Safety
- Security
- Access to emergency numbers

CGCC students can authenticate their accounts with student email addresses, user names, passwords and personal profiles.

Mathematics and Science Tutoring

The Math and Science Centers are valuable resources to assist CGCC students with a variety of math and science courses by offering tutoring and resources to supplement classroom instruction. The Math and Science tutoring program at the Pecos Campus is located on the second floor of the Library, rooms LIB227, LIB228 and LIB229. At the Williams Campus, tutoring takes place in Bridget Hall, room BRID115. A schedule of tutoring hours and services is posted at the beginning of each semester. The Math and Science tutoring program offers:

- Drop-in tutoring for math, chemistry, biology, physics, engineering, and statistics
- Online tutoring for math, chemistry, biology, physics, and statistics
- Trained tutors, including math and science faculty
- Computers with mathematics and science software

- Calculators and current textbooks
- Reference materials, handouts, science models and microscopes
- Interactive workshops focusing on a variety of mathematics and science topics

My Maricopa

maricopa.edu/students (<https://www.maricopa.edu/students/>) is an online student center where students can do the following:

- Apply for admission
- Register for courses
- Check class schedule
- Add/drop courses
- Request official transcripts
- View unofficial transcripts
- Check holds
- Check fee balance and pay fees
- Manage Refund method
- Sign up for a payment plan
- View financial aid
- Check student grades
- Update address/phone
- Check course availability

New Student Orientation

All new-to-college, degree & transfer-seeking students are required to attend Coyote Kickoff (Initial Advisement/New Student Orientation). This includes students who have earned college credit through ACE, Dual Enrollment, or Hoop of Learning programs and are now high school graduates.

At Coyote Kickoff, academic advisors and college staff assist you with registering for your first semester courses. You will learn how to access and navigate the online Student Center, discuss major and degree requirements, review important college policies, student resources, and prepare for a successful first semester at CGCC.

Office of Student Recruitment

The Office of Student Recruitment provides information to future students about various academic programs, services, and resources available at Chandler-Gilbert Community College. To schedule a campus tour or request information, call 480-732-7385, visit the web at www.cgc.edu/admissions/new-students (<http://www.cgc.edu/admissions/new-students/>) or email recruitment@cgc.edu.

Online and Hybrid Courses

Distance learning courses, also referred to as e-learning courses, are taught via the Internet and may be entirely or partly online. Courses taught partly online are identified as hybrid in CGCC class schedules. E-learning courses cover the same material as courses taught in person. To be successful in e-learning courses students should possess a reasonable level of comfort with technology and have consistent access to a computer with a reliable Internet service provider. E-learning courses are for students who are self-motivated and are able to learn independently using online tutorials and assignments. Communication among students, and between students and instructors, is mediated by

Canvas, the Learning Management System (LMS) used for online and hybrid courses. Each student is assigned a Maricopa email address, which is the official means of electronic communication between the College and students.

Parking

Students taking classes exclusively at the Pecos Campus are no longer required to obtain an MCCCDC parking decal to park on campus property.

Students parking at the Williams Campus must obtain and display a current academic year CGCC Williams Campus parking permit. These may be obtained from College Safety in Bluford Hall. Permits will be issued only after the refund deadline has passed for a student's earliest-starting class. Current enrollment in Williams Campus class(es) will be verified prior to a permit being issued. Students are limited to one permit.

A new Williams Campus parking permit will need to be obtained each academic year (fall through the following spring and summer semesters).

CGCC students and employees choosing to park vehicles on Arizona State University Polytechnic campus property are required to register their vehicles and purchase and display ASU parking decals. ASU parking decals can be purchased from the ASU Polytechnic Campus Decal Sales office located in the ASU Student Affairs Complex.

CGCC students and employees are subject to ASU Polytechnic Campus parking and traffic regulations when parking on ASU Polytechnic Campus property and are also responsible for any citations and/or penalties resulting from parking violations.

Practical Instruction

Some courses and programs of study require students to participate in practical instruction, which may include internships, practicums, clinical placements, field experience or other types of hands-on demonstration by students of concepts or theories learned in instructional settings on campus or online. Practical instruction may require students to travel to approved sites throughout the Maricopa Community College District service area, and may also require students to meet eligibility requirements such as fingerprint clearance, background checks, drug testing, and operating various types of motor vehicles. Complete information on practical instruction can be found in recruitment materials and student handbooks for specific instructional programs.

Student Business Services

Student Business Services Office (SBS) manages financial operations for the college, including tuition and fee collections and provides financial accountability to funding agencies and individuals. Students can schedule appointments or simply ask questions by calling 480-732-7312 or emailing sbs@cgc.edu.

Student Dress Code

Students are expected to dress appropriately and in good taste at all times while on campus, in the classroom, or in the Student Center. Students are required to wear some type of shirt in addition to other normal apparel. State Health Department laws and college policy require that all students wear shoes. If, in the opinion of the faculty or staff member, any student's dress, manner, appearance, or conduct distracts, disrupts or interferes in any way with the classroom procedures or the educational processes, the violator may be asked to leave the classroom

or the campus. The violator may not return until the condition is corrected or the case is reviewed by the Vice President of Student Affairs.

Student Helpline

Students may need support to review and resolve complaints, concerns and issues that they face in and out of the classroom. The Students Helpline's role is not to judge your complaint or concern, but to help you resolve it in an appropriate manner. Chandler-Gilbert Community College is committed to the development of our students.

Should a student need guidance or have an issue related,

- Call 480-732-7322 for support. We will listen to your concern and help direct you through the appropriate process. We offer non-judgmental support to all CGCC students. This office serves as an advocate for any student issues at CGCC.
- You can leave a recorded message on this line 24 hours a day. Please leave your name, your concern and a student advocate will return your call and help you with your issue, complaint or concerns.
- Email student-helpline@cgcc.edu directly. Please explain what is happening, your name and the best way to contact you. Emails are responded to on a daily basis.

The VFSA's Office provides information on all student services and the following MCCCCD policies:

- Student Rights and Responsibilities
- Student Conduct and Grievances
- ADA Accommodations
- Sexual Harassment Issues
- 504 and Title IX

Student Housing

Student housing is available at the Williams Campus for those students who meet eligibility and criteria. Two-, three-, four-, and five bedroom houses and residential hall rooms and suites are available for rent. Housing at the Williams Campus is open to any student enrolled in the minimum number of credit hours at one of the Maricopa Community Colleges campuses.

Students must remain in good standing and a verification of eligibility completed, to remain in residential living each term. To remain in good standing, students need to be enrolled throughout the term(s) and meet all requirements of the housing agreement. Contact the Williams Campus Housing Office at 480-727-1700 for specific information, or visit housing.asu.edu (<http://housing.asu.edu>)

Student ID/Library Cards

Student ID cards serve as a Library Card See Student Identification Cards (p. 18).

Student Identification Cards

Student identification (ID) cards are obtained from the Enrollment Services Office, located in the Coyote Center at the Pecos Campus. The first card is free and can be obtained after enrolling in courses. The card is used to access many of the services on campus including the Library and Fitness Center and should be kept from semester to

semester. Replacement cards can be purchased for \$5 at Student Business Services, located in PSB112, at the Pecos Campus.

Student Immunization

The Maricopa County Community Colleges District does not require that students receive vaccinations prior to enrollment. Certain professional or occupational programs do require particular vaccinations for participation in those programs. More information about these programs can be found on college websites. To participate in ASU housing, students must comply with ASU health requirements. More information can be found at <https://eoss.asu.edu/health/parents/immunization> (<https://eoss.asu.edu/health/parents/immunization/>)

Student Insurance

More information is available here. Or please visit or contact the Office of the Vice President of Student Affairs in the Pecos Campus; 480-732-7322.

Student Life and Leadership

All students are encouraged to participate in programs and activities sponsored by the Office of Student Life and Leadership located in the Student Center at the Pecos Campus and Bridget Hall at the Williams Campus. There are many opportunities to enhance a student's experience at CGCC by getting involved outside of the classroom.

These include leadership development, community service programs, cultural events, and an opportunity to participate in one of the many student organizations. For more information visit: <http://www.cgcc.edu/student/life> (<http://www.cgcc.edu/student/life/>). To participate in campus, community service programs, or Service-Learning call the Office of Student Life and Leadership at 480-732-7104.

Equity, Inclusion & Retention Programs

Male Empowerment Network (MEN)

A program dedicated to increase the access, persistence and graduation rate of minority male students. To connect minority male students with academic and professional support resources and services and create a culture of success and empowerment. For more information or to get connected, reach out to student.life@cgcc.edu

Women Rising

A program dedicated to increase the access, persistence and graduation rate of minority female students. To connect minority female students with academic and professional support resources and services and create a culture of success and empowerment. For more information or to get connected, reach out to student.life@cgcc.edu.

Bridging Success

A program to support students who were in foster care and to assist them achieve their academic dreams. At Chandler-Gilbert we have champions & coaches ready to help you succeed. Get connected by reaching out to champions@cgcc.edu.

Leadership Development

Getting Involved - Leadership Retreats and Leadership Activities are organized to increase students' leadership skills during the fall and spring semesters. Interested students are encouraged to call or email the Office of Student Life and Leadership at 480-732-7104 or student.life@cgcc.edu.

Community Service and Volunteer Opportunities

Students are encouraged to serve and volunteer on campus and in the community in a variety of ways. Check out service opportunities here: <https://cgc.campuslabs.com/engage/service-opportunities> (<https://cgc.campuslabs.com/engage/service-opportunities/>) or email service.learning@cgc.edu to get involved. There are also preplanned and organized volunteer opportunities each semester called CommUNITY for students to sign up for.

Coyote Cupboard

Coyote Cupboard is a food pantry, non-perishable and household items are available to any CGCC student or employee. CGCC is proud to partner with Mathew's Crossing Food Bank. For more information email student.life@cgc.edu

Produce Distribution

We are proud to partner with United Food Bank to serve students, staff and community members at the Pecos and Williams Campus on a monthly basis offering fresh produce. For more information regarding basic needs please visit: <https://www.cgc.edu/student-resources/student-basic-needs/food-pantry/food-pantry> (<https://www.cgc.edu/student-resources/student-basic-needs/food-pantry/food-pantry/>)

Service-Learning

This is an exciting teaching strategy designed to integrate community service into the classroom. This program benefits everyone involved: students, faculty members, and the community.

Into the Streets

Each semester students are encouraged to participate in the Into the Streets program, which is designed to give students hands-on experience serving in some of CGCC's many community service agencies, such as the Boys and Girls Clubs, nursing homes, and homeless shelters.

Adopt-A-Family Program

This program assists CGCC students with necessary food, clothing, and related resources. During the holidays, meals and gifts are provided as well. Students must complete an application or be referred by college employees. For more information, please contact student.life@cgc.edu.

CGCC Student Organizations

The list of student organizations at CGCC grows each year. Listed below are the current, officially recognized groups. Student organizations may be formed for many purposes — social, service, athletic, professional, and religious. Current information is available in the Office of Student Life and Leadership. For more information about student organizations contact student.life@cgc.edu

- APIC – Asian Pacific Islander Club
- Art Club
- Black Student Union
- Christian Challenge
- Coding Club
- DECA
- Esports
- Educators Rising
- Engineering Club

- IEC – Inter-cultural Exchange Club
- LSO - Latinx Student Organization
- One Voice
- Pre-Health Professionals Club
- Psi Beta
- PTK – Phi Theta Kappa
- Student Veterans Organization
- SHPE - Society of Hispanic Professional Engineers
- SWE - Society of Women Engineers

Esports Program

What is Esports? Esports is an organized video game competition. CGCC Esports program is providing an innovative opportunity for students to compete in collegiate and non-collegiate tournaments through the exploration of Esports. Our Esports program uses gaming to bring our diverse and inclusive community together with casual and competitive events both in person and online. We welcome both the casual and competitive gamer. Join CGCC gaming community at the following link, <https://cgc.campuslabs.com/engage/organization/cgcc-esports-club> (<https://cgc.campuslabs.com/engage/organization/cgcc-esports-club/>)

How to Create a Student Organization

Student organizations can be created to meet the needs of a diverse student population. Students thinking of creating a new student organization should meet with the Director of Student Life and Leadership to learn the steps to take to have any group officially recognized at CGCC. For more information, contact student.life@cgc.edu

Co-Curricular and Multicultural Programs

Co-curricular programs are programs that refer to activities, programs, events, and learning experiences that complement what students at Chandler-Gilbert Community College are learning in the classroom. These Co-curricular opportunities connect to or mirror the academic curriculum. The office of Student Life and Leadership values diversity and inclusion by providing multicultural opportunities for students to attend heritage events and learn about different cultures. Students interested in participating in Co-curricular or Multicultural events on campus are encouraged to visit <https://cgc.campuslabs.com/engage/> or email multicultural.cocurricular@cgc.edu.

College and Student Activities Budgets

CGCC allocates funds to a variety of college and student activities. These funds cover a host of special events, cultural celebrations, co-curricular activities, academic recognitions, service learning, and a variety of performing arts activities. Please contact the Vice President of Student Affairs' Office at 480-732-7322 for more information.

Voter Education and Registration

Students and community members have the opportunity to register to vote in the Office of Student Life and Leadership at CGCC. Voter registration is also available online at www.azsos.gov (<https://www.azsos.gov>) or by calling 877-THE-VOTE [877-843-8683]. Contact the Office of Student Life and Leadership at 480-732-7104 or visit www.azsos.gov (<https://www.azsos.gov>) for registration deadlines and election dates.

Student Support and Disability Resources & Services

This department provides student-centered support services and programs for CGCC's diverse student population and those individuals with disabilities. The department is located on the Pecos campus in the Bradshaw building (BRD101), For more information call 480-857-5188. or Williams campus in Bluford Hall (BLU101S), call 480-988-8162

Disability Resources & Services (DRS)

DRS provides access and ongoing support services to students who have a documented disability according to The Americans with Disabilities Act (ADA), and Section 504 of the Rehabilitation Act. Students will apply for services and request academic adjustments through MCCC's DRS CONNECT system. All registered students must provide appropriate and current documentation that complies with the MCCC documentation policy and guidelines. DRS provides education, information regarding student rights, advocacy, and implement academic adjustments that support student learning.

Travel by Students

Official college trips should be made in vehicles provided by the college or by commercial vehicles. College vehicles may be used for official college business only. See MCCC policy on Operation and Insurance Coverage of District Owned and/or Leased Vehicles and Privately Owned Vehicular Usage for District Purposes. The college president may require an advisor(s) for college-sponsored student trips that involve out-of-county travel. No approved college organization, association or club that is financed out of the appropriate revenue fund budget shall travel out of state more than three (3) times during one (1) school year. Exceptions may be made for student officers who hold offices in national or regional organizations and tournaments. For travel out of the country, Governing Board approval is required. If campus financial support is requested for attending tournaments or club functions, students must obtain campus approval prior to running for national or regional organizations and/or officer positions.

Trip Reduction Program

Full-time students are encouraged to participate in Maricopa County's Trip Reduction Program (TRP). Discounted bus passes, reserved carpool parking, free showers, and contests and prizes are available to qualified participants. Interested students should check with the Student Center information desk (SC100) or contact the college Trip Reduction Coordinator for details. Complete information about the program is available at www.cgc.edu/trip (<http://www.cgc.edu/trip/>)

Veterans Services

CGCC recognizes and honors the sacrifices of all those who have served our country in the U.S. Armed Forces. The Veterans Services Office is located in Coyote Center at the Pecos Campus and in Bluford Hall at the Williams Campus, and provides the following services:

- GI Bill® benefits counseling and processing
- Referrals for personal, career, academic counseling, enrollment services, and financial aid
- Assistance with family and transition support
- Student Veterans Organization (SVO)

Students applying for veterans benefits for the first time should allow four to six weeks before receiving benefits. The amount of benefits awarded is based on the number of credit hours attending and chapter of benefits. Those students receiving benefits must be following the Veterans Administration (VA) academic progress policy to continue to receive benefits.

Veterans Chapters Served

- Chapter 30 – Montgomery GI Bill®
- Chapter 31 – Vocational Rehabilitation (separately served through local VA Vocational Rehabilitation offices)
- Chapter 33 – Post 9/11 GI Bill®
- Chapter 35 – Survivors and Dependents of Deceased/100% Disabled Veterans
- Chapter 1606 – Selected Reserve GI Bill®

For additional information, contact the Veterans Services Office at 480#726-4122 at the Pecos Campus and 480#988-8177 at the Williams Campus. Information is also available at www.cgc.edu/veterans (<http://www.cgc.edu/veterans/>).

GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at www.va.gov/education (<http://www.va.gov/education/>)

Approved VA Funding Airway Science Technology, Flight Emphasis

Approved Funding for VA Flight Training for 2022-2023
Flight Standards District Office (FSDO)

Costs are calculated according to the following hourly rate: (Rates shown do not include fuel surcharge, if any)

Aircraft Rate	Solo Rate	Dual Rate	Rate
Cessna 172/Piper Archer	\$175.40/hour	\$165.00/hour	
Seminole	NA	\$315.00/hour	
SE Simulator			\$99.00/hour
ME Simulator			\$115.00/hour

Instructor Rate: \$75.00 /Hour

Note: Solo Flights are subject to sales tax in the stat of AZ at a rate of 6.3% which is included in the hourly rate.

2022-2023 Projected Individual Flight Training Costs – For New Students or Students Beginning Commercial/Instrument Training in Fall 2022

These are the projected costs for flight courses for the 2022-2023 school year based on anticipated rates¹. Course costs are based on the average number of hours it takes a student to complete the course, and may vary from student to student according to their capability and motivation. Financial aid may be available to assist with these costs, but applying for aid must be done well in advance. Flight costs are in addition to tuition.

¹ Does not include AET270 Certified Flight Instructor: Instrument Airplane Flight Lab

Private Pilot**AET110 Private Pilot Flight Certification \$16,499.00**

Item	Hours
Instructor Time	92
S.E. Simulator	3
Piper Archer Dual	50
Piper Archer Solo	5
FAA Written ¹	(1)

¹ FAA written price of \$175.00 included in the budgeted total for each applicable course

AET112 Private Pilot Flight-Test Course¹ \$4,095.00

Item	Hours
Instructor Time	26
Piper Archer Dual	13

¹ AET112 Private Pilot Flight-Test Course - Requires Private Pilot certificate prior to initiating training with CGCC

Instrument, Commercial and Multi-Engine**AET210 Commercial Flight Lab I (Lessons 1-8) \$2,537.40**

Item	Hours
Instructor Time	15
S.E. Simulator	3.6
Piper Archer Dual	6.4

AET220 Instrument Commercial Flight II (Lessons 1-31) \$11,321.80

Item	Hours
Instructor Time	70.7
S.E. Simulator	13.2
Piper Archer Dual	27.5
FAA Written ¹	(2)

¹ FAA written price of \$175.00 included in the budgeted total for each applicable course

AET221 Commercial Flight Lab II (Lessons 9-26) \$10,604.22

Item	Hours
Instructor Time	40.7
S.E. Simulator	2.4
Piper Archer Dual	24
Piper Archer Solo	19.8

AET222 Commercial Flight Lab III (Lessons 27-44) \$10,943.14

Item	Hours
Instructor Time	43.9
S.E. Simulator	2.4
Piper Archer Dual	24
Piper Archer Solo	20.1
FAA Written ¹	(1)

¹ FAA written price of \$175.00 included in the budgeted total for each applicable course.

AET239 Commercial Flight Lab IV (Lessons 45-54) \$5,011.30

Item	Hours
Instructor Time	21.5
Piper Archer Dual	10.5
Piper Archer Solo	9.5

AET240 Multiengine Airplane Pilot Flight Lab (Lessons 1-15) \$7,285.00

Item	Hours
Instructor Time	32.2
M.E. Simulator	4
Piper Seminole	14

Flight Instructor**AET230 Certified Flight Instructor: Airplane, Single Engine Land Flight Lab Certification \$9,419.00**

Item	Hours
Instructor Time	58
Piper Archer	28
S.E. Simulator	1
FAA Written ¹	(2)

¹ FAA written price of \$175.00 included in the budgeted total for each applicable course.

Total Estimated Flight Costs: \$73,620.86 (110) or \$61,216.86 (112) Fees are subject to change. Course costs are based on the average number of hours it takes a student according to their capability and motivation.

Students using veteran's educational benefits will only be certified for the actual cost and required flight hours of the program.*AET110 Private Pilot Flight Certification is a prerequisite.

Writing Center

The Writing Center is a valuable resource to assist CGCC students with their writing needs in all of their college courses. The Writing Center helps students address a wide range of writing concerns, from how to determine whether they have a good thesis, to how to organize their work, revise more effectively, and document sources accurately. The Writing Center at the Pecos Campus is located on the second floor of the Library, room LIB230. Writing tutors are also available at the Williams Campus in Bridget Hall, room BRID114. A schedule of tutoring hours and services is posted at the beginning of each semester.

The Writing Center services include:

- Individual writing sessions with knowledgeable tutors
- Drop-in tutoring (no appointment needed)
- Online tutoring (appointment may be necessary)
- Reference materials and handouts
- A comfortable, quiet study area for individual or small-group work
- Computers for academic use
- Interactive workshops focusing on a variety of writing topics

MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT COMMON POLICIES

Maricopa County Community College District Common Pages

The Catalog Common Pages are MCCCDC Administrative Regulations and Appendix items specifically relevant to students.

The Catalog Common Pages (Catalog Common Pages (<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/student-regulations/>)) are MCCCDC Administrative Regulations and Appendix items specifically relevant to students. (See Common Pages - Student Regulations Line-Up)

The Catalog Common Pages are reviewed and updated annually by the Common Pages Committee and coordinated by the Center for Curriculum and Transfer Articulation and the Associate Vice Chancellor for Academic and Student Affairs. The Catalog Common Pages are a compiled list of Board Policies, Administrative Regulations, and program information directed toward student services support areas at the colleges. For more information, please contact:

Bettina Celis — Associate Vice Chancellor for Academic Affairs
(480) 731-8016 | bettina.celis@domail.maricopa.edu

Felicia Ganther, JD — Associate Vice Chancellor for Student Affairs
(480) 731-8824 | felicia.ganther@domail.maricopa.edu

DEGREE REQUIREMENTS

- General Academic Policies for Associate Degrees Designed for University Transfer (p. 23)
- Arizona General Education Curriculum (AGEC) – A, B, S (p. 25)
- Associate in Arts (AA) Degree (p. 31)
- Associate in Arts, Elementary Education Degree (AAEE) (p. 33)
- Associate in Arts, Fine Arts (AAFA) (p. 38)
- Associate in Science, (AS) Degree (p. 40)
- Associate in Business, General Requirements (ABUS-GR) Degree (p. 44)
- Associate in Business, Special Requirements (ABUS-SR) Degree (p. 47)
- Associate in General Studies (AGS) Degree and General Education Requirements (p. 49)
- Associate in Applied Science (AAS) Degree and General Education Requirements (p. 70)
- Academic Certificate (AC) (p. 79)
- Allied Health or Nursing Assumption of Risk/Release of Liability (p. 79)
- Fields of Interest Matrix (p. 81)

General Academic Policies for Associate Degrees Designed for University Transfer

Maricopa County Community College District (MCCCD) 2022-2023

General Academic Policies for Associate Degrees Designed for University Transfer

The following academic policies govern the associate degrees designed for university transfer Associate in Arts (AA); Associate in Arts, Elementary Education (AAEE); Associate in Arts, Fine Arts (AAFA); Associate in Business-General Requirements (ABUS-GR); Associate in Business-Special Requirements (ABUS-SR); and Associate in Science (AS).

Note that academic policies that govern the Associate in General Studies (AGS) and Associate in Applied Science (AAS) degrees are listed separately, with the requirements for each of those degrees.

- The graduation policies within the general catalog must be satisfied (administrative regulation 2.3.9). First Year Experience required (FYE101 or FYE103)
- Minimum semester credits for completion vary slightly by degree and specific emphasis (when applicable). Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu/> for credit minimums for individual degree programs.
- Credits completed toward these minimums must be in courses numbered 100 or above with a grade of “C” or better. These credits must include a minimum of 35¹ in satisfaction of the requirements of the Arizona General Education Curriculum (AGEC) along with a maximum of 6 credits towards MCCCD’s Additional Requirements.

- Detailed degree requirements are maintained by the Center for Curriculum and Transfer Articulation (CCTA); refer to the program search at <https://curriculum.maricopa.edu/>

General Education Requirements

The AGEC requirements include a designated number of courses approved for each of the following areas:

- First Year Composition [FYC],
 - Mathematical Applications [MA], Computer/Statistics/Quantitative Applications [CS] (CS not required for Associate in Science),
 - Literacy and Critical Inquiry [L],
 - Humanities, Arts and Design [HU],
 - Social-Behavioral Sciences [SB], and
 - Natural Sciences (Science Quantitative [SQ], Science General [SG])
 - Awareness Area: Cultural Diversity in the U.S. [C]
 - Awareness Area: Global [G] or Historical [H] Awareness
- Note that there are three different AGECs each aligning with a different subset of associate degrees—AGEC-A for the AA, AAEE, and AAFA degrees, AGEC-B for the ABUS-GR and ABUS-SR degrees, and AGEC-S for the AS degree. For some types of AGECs/Associate degrees, students are allowed to choose from a broad list of courses; for others the courses are more restricted or even specified.
 - A single course can simultaneously count toward one or more areas in the following. Awareness Areas of [C]; and/or [H]/[G] may be shared with AGEC requirements. MCCCD Additional Requirements e.g. Oral Communication and Critical Reading may be shared with other AGEC requirements. For example, CRE101 may be used to satisfy both the MCCCD Reading Requirement and [L] in the AGEC core. For some degree types, other lower division courses can be used to meet the degree requirements.
 - While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. Except for the AGEC-S, a single course cannot be used to satisfy more than one AGEC core requirement, with the exception of Awareness Areas. For example, a course cannot be used to satisfy [HU] and [SB], but a course can be used to meet [HU] and [C], [G] and/or [H].
 - The AGEC-A and AGEC-B require a minimum of 35 credits¹ and the AGEC-S requires a minimum of 36 credits¹, however, the AGEC credit count within the total credits for a degree may be under these minimums if courses are also applied toward Required Courses or Restricted Electives and the credits are counted in those areas. Awareness Areas and MCCCD’s Additional Requirements may also be shared with AGEC Core Areas. Optimizing credits in this way is often recommended because some programs and universities limit transferable credits at 64.
 - All MCCCD courses applied to the AGEC must be completed with a grade of “C” or better. All MCCCD courses applied to the AGEC must be accepted for transfer credit as a direct equivalent, departmental elective, or general elective credit at ASU, NAU, and UAZ according to the Course Equivalency Guide for the academic year in which the course was taken. Courses applied exclusively to the Bachelor of Applied Science are ineligible for inclusion in the AGEC.

¹ Credit minimums may be lower if students have transfer credit from ASU, NAU or UAZ for a single course that meets First Year Composition in full. See notes on individual degree policies.

Coursework Beyond General Education

- For some degree types, the additional coursework required to complete the degree is specified while others offer the student more latitude. See degree checksheets for more complete description. Consultation with an academic advisor about course selection is always recommended.
- Oral Communication and Critical Reading are MCCCDC Additional Requirements required for Associate in Arts, Associate in Arts, Elementary Education, Associate in Arts, Fine Arts and Associate in Science degrees. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for acceptable options to meet these requirements for individual degree programs.
- Within the Restricted Electives, course recommendations are made for specific transfer institutions. Students should select a transfer plan (group of courses) based on their intended transfer institution. However, not all transfer institutions are reflected in these recommendations. Therefore, students may instead meet the minimum number of Restricted Elective credits using a combination of courses from the transfer plans listed. Restricted Electives should be selected in consultation with an academic, faculty, or program advisor.
- Note that some majors require up to a 4th semester proficiency (202-course level) in a non-English language. Students should consult with an academic advisor to discuss options to complete these requirements.
- General Electives may need to be selected to meet the minimum total credits required for the degree. Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives, (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer advisement information is accessible on the following websites: aztransfer.com (<http://aztransfer.com>), curriculum.maricopa.edu (<http://curriculum.maricopa.edu>), as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.
- Any course cross-referenced under another prefix(es) (for example ENH291/EDU291 Children's Literature) covers identical content and its credits can only be counted once toward requirements.

Transfer Credit from Institutions Outside of MCCCDC

- Credits transferred from outside of MCCCDC must be at a grade of "C" (2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be used to satisfy AGEC requirements if documentation collected by the community college indicates that this was the only grading option available and that the Pass grade ("P") is equivalent to a "C" or better.
- External courses evaluated either as equivalent to an MCCCDC course or as elective credit may be applied toward the minimum credits for degree completion.

- The AGEC (Arizona General Education Curriculum) designations of courses completed at other Arizona public colleges or universities will be applied as listed on AZTransfer's Course Equivalency Guide (CEG) for the semester(s) in which the course(s) were completed. If a transcript evaluation determines there is no MCCCDC direct equivalency to a course from another Arizona public college or university, applicability to AGEC and/or associate degree requirements will be based on the source institution's AGEC designation for the semester in which the course was completed.
- Courses from private, out-of-state, and/or online institutions (i.e., outside of the Arizona Transfer System comprised of Arizona's public community colleges, tribal colleges and universities) will be applied toward AGEC and/or associate degree requirements based on the courses' evaluated MCCCDC equivalence. If courses are not directly equivalent, the credit may be articulated as a departmental elective, and if deemed appropriate, may have a general education designation applied to the course.
- Credit awarded at a Maricopa Community College through prior learning assessment is transferable to the other colleges in the district but is not necessarily transferable to other colleges and universities. No more than 20 such assessed semester credit hours may be applied toward AGEC, and no more than 30 credits (including up to 20 toward AGEC) may be applied toward a degree.

Completion and Transfer

- Completion of the AGEC with a minimum Grade Point Average of at least 2.0 on a 4.0 scale for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. It does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment.
- While MCCCDC's associate degrees are designed to facilitate a seamless transfer to other Arizona institutions, courses may be transferable and/or meet associate degree requirements, but may not necessarily meet the specific requirements of a particular degree, major, or area of emphasis at another institution.

Students planning to transfer to another college or university are urged to refer to university requirements and academic advisors from both institutions to be certain that all their selected coursework is applicable to the requirements of their intended transfer degree and within their allowed transferable credit limit. For some majors, the statewide Common Course matrix and AZTransfer Major Guides at aztransfer.com and/or university transfer guides can also provide some guidance. For appropriate course selection, students should consult with an academic advisor.

For the most current information regarding common policies degree requirements, log on to <https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/student-regulations> (<https://district.maricopa.edu/stewardship/maricopa-governance/common-pages/student-regulations/>)

Arizona General Education Curriculum (AGEC) – A, B, S

Maricopa County Community College District (MCCCD) 2022-2023

Description

The Maricopa County Community College District Arizona General Education Curriculum (MCCCD AGEC) is a general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. Generally, the MCCCD AGEC transfers as a block without loss of credit. The AGEC-A and AGEC-B require a minimum of 35¹ credit hours, and the AGEC-S requires a minimum of 36¹ credit hours.

In most cases, all courses used to satisfy the MCCCD AGEC will apply to graduation requirements of the university major for which the AGEC was designed.

There are three types of AGECS in MCCCD: AGEC-A, AGEC-B, and AGEC-S. As described below, these AGECS are also a component of most MCCCD associate degrees and comparable degrees at other Arizona public community colleges. The AGEC-A defines the general education requirements in the Associate in Arts (AA), Associate in Arts, Elementary Education (AAEE), and the Associate in Arts, Fine Arts (AAFA) degrees. The AGEC-B defines the general education requirements in the Associate in Business-General Requirements (ABUS-GR) and Associate in Business-Special Requirements (ABUS-SR) degrees. The AGEC-S defines the general education requirements in the Associate in Science (AS) degree.

As described in more detail below, all AGECS require designated courses in First Year Composition [FYC], Literacy and Critical Inquiry [L], Mathematical Studies [MA/CS] (Exception: The AGEC-S does not require CS.), Social-Behavioral Sciences [SB], Humanities, Design and Fine Arts [HU], and Natural Science [SQ/SG]. Students must satisfy two Awareness areas: Cultural Diversity in the U.S. and either Global Awareness or Historical Awareness

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Purpose of the AGECS

AGECS were designed to articulate with different academic majors, and their particular requirements vary accordingly. In some major-specific pathways, students are allowed to choose from a broad list of courses to satisfy the AGEC requirements; for others the courses are more restricted or even specified. Additional information on academic majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com (<http://www.aztransfer.com>)

- The **AGEC-A** is designed to satisfy requirements in many liberal arts majors as well as other majors that articulate with an Associate in Arts degree (e.g., social sciences, fine arts, humanities, elementary education). AGEC-A requires a minimum of college mathematics or college algebra to satisfy the Mathematics [MA] requirement.
- The **AGEC-B** is designed to satisfy requirements in business majors that articulate with the Associate in Business. AGEC-B requires a minimum of brief calculus to satisfy the Mathematics [MA] requirement.

- The **AGEC-S** is designed to satisfy requirements in majors with more prescriptive mathematics and mathematics-based science requirements such as many in the sciences, technology, engineering and mathematics. AGEC-S requires a minimum of the first course in a calculus sequence to satisfy the Mathematics [MA] requirement, and a minimum of eight credits of either university chemistry, university physics, general biology for majors, or physical and historical geology to satisfy the Natural Sciences [SQ/SG] requirement. In addition, students must select six to ten additional credits of Subject Options composed of math and/or science appropriate to their major.

Academic Policies that Govern the AGEC A, B, S

- Requires completion of at least 35 credit hours¹ (AGEC-A, AGEC-B) and 36 credit hours¹ (AGEC-S) in courses numbered 100 and above and that a minimum of 12 of those credits be taken at one or any combination of the MCCCD colleges. See First Year Composition [FYC] notes in the following AGEC descriptions and footer for credit minimum exceptions.¹
- All MCCCD courses applied to the AGEC must be completed with a grade of “C” or better.
- All MCCCD courses applied to the AGEC must be accepted for transfer credit as a direct equivalent, departmental elective, or general elective credit at ASU, NAU, and UAZ according to the Course Equivalency Guide for the academic year in which the course was taken. Courses applied exclusively to the Bachelor of Applied Science are ineligible for inclusion in the AGEC.
- A single course can simultaneously count toward one or more Awareness Areas and other AGEC requirements. For example, a course in world geography can be used to satisfy [SB] and [G] requirements. While multiple requirements can be met with a single course, the credits for that course are only counted one time toward the required minimum total for the AGEC. Except as detailed below for the AGEC-S, a single course cannot be used to satisfy more than one AGEC requirement, with the exception of Awareness Areas.
- The AGEC-A and AGEC-B require a minimum of 35¹ credits and the AGEC-S requires a minimum of 36¹ credits, however, the AGEC credit count within the total credits for a degree may be lower than these minimums if courses are also applied toward Required Courses or Restricted Electives and the credits are counted in those areas. Awareness Areas and MCCCD’s Additional Requirements may also be shared with other AGEC Requirements. Optimizing credits in this way is often recommended because some programs and universities limit transferable credits at 64.

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Transfer Credit from Institutions Outside of MCCCD

- Credits transferred from outside of MCCCD must be a grade of “C” (2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be used to satisfy AGEC requirements if documentation collected by the community college indicates that this was the only grading option available and that the Pass grade (“P”) is equivalent to a “C” or better.
- External courses evaluated either as equivalent to an MCCCD course or as elective credit may be applied toward the minimum credits for degree completion.
- The AGEC (Arizona General Education Curriculum) designations of courses completed at other Arizona public colleges or universities will be applied as listed on AZTransfer’s Course Equivalency Guide

(CEG) for the semester(s) in which the course(s) were completed. If a transcript evaluation determines there is no MCCC direct equivalency to a course from another Arizona public college or university, applicability to AGEC and/or associate degree requirements will be based on the source institution's AGEC designation for the semester in which the course was completed.

- Courses from private, out-of-state, and/or online institutions (i.e., outside of the Arizona Transfer System composed of Arizona's public community colleges, tribal colleges and universities) will be applied toward AGEC and/or associate degree requirements based on the courses' evaluated MCCC equivalence. If courses are not directly equivalent, the credit may be articulated as a departmental elective, and if deemed appropriate, may have a general education designation applied to the course.
- Credit awarded at a Maricopa Community College through prior learning assessment in non-traditional setting is transferable to the other colleges in the MCCC district but is not necessarily transferable to other colleges and universities. No more than 20 such assessed semester credit hours may be applied toward AGEC.

Completion and Transfer

- Completion of the AGEC with a minimum grade point average of at least 2.0 on a 4.0 scale for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. It does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment.
- Students planning to transfer to another college or university are urged to refer to university requirements and academic advisors from both institutions to be certain that all their selected coursework is applicable to the requirements of their intended transfer degree. For some majors, the statewide Common Course matrix, AZTransfer Pathway Guides and/or University Transfer Guides posted on the AZTransfer website can also provide some guidance. For appropriate course selection, students should consult with an academic advisor.

AGEC Requirements

Descriptions and definitions of the requirements for each of the three AGECS follow. The following website identifies the courses that apply to the different requirements within each AGEC: AGEC matrix (<http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>). Courses available for both Areas during a current or upcoming semester can also be found using the "Find a Class" tool on maricopa.edu and on each MCCC college's website.

*Note that for students pursuing an associate degree with a specific emphasis (for example: Associate in Arts, Emphasis in History, Associate in Arts, Fine Arts, Emphasis in Theatre, Associate in Science, Emphasis in Physics), the AGEC course requirements are usually more prescriptive. Students pursuing a major-specific pathway should consult the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu>) for specific degree and AGEC requirements. Consultation with an academic advisor about course selection is always recommended.

Arizona General Education Curriculum-Arts (AGEC-A) Requirements

Credits: 35 (min)¹

The AGEC-A requires a minimum of 35 credits (32 if FYC is met by single transfer course)¹, however, the AGEC credit count within the total credits

for a degree may be lower if courses are also applied toward Required Courses or Restricted Electives and the credits are counted in those areas. Credits count once toward the total for the degree. Therefore, the AGEC-A may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)¹ within an associate degree provided that all requirements listed below are completed.

Courses applied to meet AGEC-A requirements vary by emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu ([https://curriculum.maricopa.edu/](https://curriculum.maricopa.edu)) for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s) or Restricted Elective(s). AGEC designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC)			
ENG101	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L)			
Select three credits		3	_____
Mathematical Applications (MA)			
Select one of the following:		3-6	_____
<i>College Mathematics</i>			
MAT140	College Mathematics		_____
MAT141	College Mathematics		_____
MAT142	College Mathematics		_____
MAT145	College Mathematics with Review		_____
MAT146	College Mathematics with Review		_____
<i>College Algebra</i>			
MAT150	College Algebra/ Functions		_____
MAT151	College Algebra/ Functions		_____
MAT152	College Algebra/ Functions		_____
MAT155	College Algebra/ Functions with Review		_____

MAT156	College Algebra/ Functions with Review	_____
<i>Pre Calculus</i>		
MAT187	Precalculus	_____
<i>Higher (MA)-approved Course</i>		
	Higher (MA)-approved general education course	_____
Computer/Statistics/Quantitative Applications (CS)		
Select three credits		3 _____
Humanities, Arts and Design (HU)		
Students are encouraged to choose course work from more than one discipline.		6 _____
Social-Behavioral Sciences (SB)		
Students are encouraged to choose course work from more than one discipline.		6 _____
Natural Sciences (SQ/SG)		
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG- Science General will not satisfy this requirement.		8 _____
Awareness Areas		
Courses may be used to satisfy other AGECE requirements and one or more Awareness Area(s). ²		0-6 _____
Cultural Diversity in the United States (C)		_____
Global Awareness (G) or Historical Awareness (H)		_____

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

² See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for current course values.

Arizona General Education Curriculum-Business (AGECE-B) Requirements

Credits 35¹ (min)

The AGECE-B requires a minimum of 35 credits (32 if FYC is met by single transfer course)¹, however, the AGECE credit count within the total credits for a degree may be lower if courses are also applied toward Required Courses or Restricted Electives and the credits are counted in those areas. Credits count once toward the total for the degree. Therefore, the AGECE-B may be met with fewer than 35 credits (fewer than 32 if FYC is

met by single transfer course)¹ within an associate degree provided that all requirements listed below are completed.

Courses applied to meet AGECE-B requirements vary by emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGECE requirements, Required Course(s) or Restricted Elective(s). AGECE designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC)¹			
ENG101	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L)			
Select three credits		3	_____
Mathematical Applications (MA)			
Select one of the following:		3-5	_____
MAT212	Brief Calculus		_____
MAT213	Brief Calculus		_____
	Higher (MA) designated course		_____
Computer/Statistics/Quantitative Applications (CS)			
CIS105	Survey of Computer Information Systems	3	_____
Humanities, Arts and Design (HU)			
Students are encouraged to choose course work from more than one discipline.		6	_____
Social-Behavioral Sciences (SB)			
ECN211	Macroeconomic Principles	3	_____
ECN212	Microeconomic Principles	3	_____
Natural Sciences (SQ/SG)			

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.

Awareness Areas	8	_____
Courses may be used to satisfy other AGEC requirements and one or more Awareness Area(s) ²	0-6	_____
Cultural Diversity in the United States (C)		_____
Global Awareness (G) or Historical Awareness (H)		_____

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

² See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for current course values.

Arizona General Education Curriculum-Science (AGEC-S) Requirements

Credits 36 (min)

The AGEC-S requires a minimum of 36 credits (33 if FYC is met by single transfer course)¹, however, the AGEC credit count within the total credits for a degree may be lower if courses are also applied toward Required Courses or Restricted Electives and the credits are counted in those areas. Credits count once toward the total for the degree. Therefore, the AGEC-S may be met with fewer than 36 credits (fewer than 33 if FYC is met by single transfer course)¹ within an associate degree provided that all requirements listed below are completed.

Courses applied to meet AGEC-S requirements vary by emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s) or Restricted Elective(s). AGEC designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC)			
ENG101	First-Year Composition ¹	3	_____

or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____

Literacy and Critical Inquiry (L)²			
Students are strongly encouraged to choose an (L) course that also has (HU) or (SB) designation ³		0-3	_____

Mathematical Applications (MA)			
Requires the first semester of calculus courses designed for scientists and engineers ⁴ or any other (MA) designated course for which Calculus I is a prerequisite.		4-5	_____

Humanities, Arts and Design (HU)			
For the AGEC-S, a single course with both (HU) and (L) designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy (C), (G) and/or (H) requirement(s) as well. ⁵		6	_____

Social-Behavioral Sciences (SB)			
For the AGEC-S, a single course with both (SB) and (L) designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy (C), (G) and/or (H) requirement(s) as well. ⁵		6	_____

Natural Sciences (SQ/SG)			
Students must complete eight (8) credits of General Chemistry, University Physics, General Biology for Majors, or Physical and Historical Geology. Consult specific requirements of university transfer major for guidance.			_____

Select one of the following sequences: 8-10 _____

<i>General Chemistry</i>			
CHM150 & CHM151LL & CHM152 & CHM152LL	General Chemistry I and General Chemistry I Laboratory and General Chemistry II and General Chemistry II Laboratory		_____

CHM150 & CHM151LL & CHM152AA	General Chemistry I and General Chemistry I Laboratory and General Chemistry II		_____
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CHM151 & 151LL & CHM152 & CHM152LL	General Chemistry I and General Chemistry I Laboratory and General Chemistry II and General Chemistry II Laboratory		
CHM151 & 151LL & CHM152AA	General Chemistry I and General Chemistry I Laboratory and General Chemistry II		
CHM150AA & CHM152 & CHM152LL	General Chemistry I and General Chemistry II and General Chemistry II Laboratory		
CHM151AA & CHM152 & CHM152LL	General Chemistry I and General Chemistry II and General Chemistry II Laboratory		
CHM150AA & CHM152AA	General Chemistry I and General Chemistry II		
CHM151AA & CHM152AA	General Chemistry I and General Chemistry II		
University Physics			
PHY115 & PHY116	University Physics I and University Physics II		
PHY115 & PHY131	University Physics I and University Physics II: Electricity and Magnetism		
PHY121 & PHY116	University Physics I: Mechanics and University Physics II		
PHY121 & PHY131	University Physics I: Mechanics and University Physics II: Electricity and Magnetism		
General Biology for Majors			
BIO181 & BIO182	General Biology (Majors) I and General Biology (Majors) II		
BIO181 & BIO182XT	General Biology (Majors) I and General Biology (Majors) II		
BIO181XT & BIO182	General Biology (Majors) I and General Biology (Majors) II		
BIO181XT & BIO182XT	General Biology (Majors) I and General Biology (Majors) II		
Physical and Historical Geology			
GLG101 & GLG103	Introduction to Geology I - Physical Lecture and Introduction to Geology I - Physical Lab		
	or GLG101IN Introduction to Geology I - Physical		
and			
GLG102IN & GLG104	Introduction to Geology II - Historical and Introduction to Geology II - Historical Lab		
	or GLG103 Introduction to Geology I - Physical Lab		
Subject Options - Math/Science			
	Refer to transfer resources, including academic advisement and transfer guides, to select six (6)-ten (10) additional math and/or science credits that meet requirements for selected major.	6-10	
	Select Mathematics course(s) (MAT) above Calculus I and/or Computer Science course(s) (CSC) and/or		

Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Physical Geography, Physics, Zoology ⁶	
Awareness Areas	
Courses may be used to satisfy other AGEC requirements and one or more Awareness Area(s). ⁷	0-6
Cultural Diversity in the United States (C)	
Global Awareness (G) OR Historical Awareness (H)	

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

² 0 only if shared with HU or SB

³ Or to use CRE101 College Critical Reading and Critical Thinking or COM225 Public Speaking from the Maricopa Additional Requirements Area to satisfy the (L) requirement.

It may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H]). (AGEC designations are subject to change. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.)

⁴ MAT220 Calculus with Analytic Geometry I or MAT221 Calculus with Analytic Geometry I

⁵ AGEC designations are subject to change. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

⁶ MCCC prefixes AST, BIO (except BIO174 Biosafety), CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY

⁷ See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for current course values.

AGEC-Area Requirements Descriptions/Definitions

First-Year Composition (FYC)

First-Year Composition courses emphasize skills necessary for college-level expository writing, including correct grammar and punctuation, logical organization of ideas, and identification of supporting documentation.

Literacy and Critical Inquiry [L]

In the [L] course students, typically at the sophomore level, gather, interpret, and evaluate evidence and express their findings in writing or speech. This course includes a series of graded written or spoken formal assignments.

Literacy is defined broadly as communicative competence in written and oral discourse; critical inquiry is defined as the gathering, interpreting, and evaluating of evidence. Building on the proficiency attained in traditional First-Year Composition courses, the Literacy and Critical Inquiry [L] requirement sustains and extends students' ability to thoughtfully use and critically analyze written and/or spoken language.

Mathematical Applications [MA]

The Mathematical Studies requirement is intended to ensure that students have requisite skill in mathematics appropriate for their discipline and can apply mathematical analysis in their chosen fields.

Computer/Statistics/Quantitative Applications [CS]

AGEC-A and AGEC-B require a course that emphasizes the use of statistics, other mathematical methods, computer programming languages and/or software in the interpretation of data and in describing and analyzing quantitative relationships.

Humanities, Arts and Design [HU]

The study of the humanities and the disciplines of art and design deepen awareness of the complexities of the human condition and its diverse histories and cultures. Courses in the humanities are devoted to the production of human thought and imagination, particularly in philosophical, historical, religious and artistic traditions. Courses with an emphasis in fine arts and design are devoted to the study of aesthetic experiences and the processes of artistic creation. They may also feature a design emphasis in which material culture is studied as a product of human thought and imagination.

Social-Behavioral Sciences [SB]

Social-Behavioral Sciences provide scientific methods of inquiry and empirical knowledge about human behavior, both within society and within individuals. This area of emphasis in general education curriculum may include study of such disciplines as anthropology, economics, history, political science, psychology, or sociology. The courses in this area address the challenge of understanding the diverse natures of individuals and cultural groups who live together in a complex and evolving world.

Natural Sciences [SQ/SG]

In addition to an understanding of basic scientific principles and concepts, courses in the Natural Sciences are designed to help students appreciate, from firsthand laboratory and/or field research experience, the nature of science as a process that embraces curiosity, inquiry, testing, and communication to better understand natural phenomena. At least one of the two natural science courses must include an introduction to the fundamental behavior of matter and energy in physical or biological systems.

Awareness Areas

Students must satisfy two Awareness areas: Cultural Diversity in the U.S. and either Global Awareness or Historical Awareness. Courses can satisfy other AGEC requirements and one or two Awareness areas simultaneously. Therefore, no additional semester credits are required to satisfy the two Awareness areas.

Cultural Diversity in the United States [C]

The contemporary "culture" of the United States involves the complex interplay of many different cultures that exist side by side in various states of harmony and conflict. U.S. history involves the experiences not only of different groups of European immigrants and their descendants, but also of diverse groups of American Indians, Hispanic Americans, African Americans and Asian Americans—all of whom played significant roles in the development of contemporary culture and together shape the future of the United States. At the same time, the recognition that gender, class, and religious differences cut across all distinctions of race and ethnicity offers an even richer variety of perspectives from which to view one. Awareness of cultural diversity and its multiple sources can illuminate the collective past, present, and future and can help to foster greater mutual understanding and respect.

The objective of the Cultural Diversity area requirement is to promote awareness of and appreciation for cultural diversity within the contemporary United States. This is accomplished through the study of the cultural, social, or scientific contributions of women and minority groups, examination of their experiences in the United States, or exploration of successful or unsuccessful interactions between and among cultural groups.

Global Awareness [G]

Human organizations and relationships have evolved from being family and village centered to the modern global interdependence that is apparent in many disciplines—for example, contemporary art, business, engineering, music, and the natural and social sciences. Many serious local and national problems are world issues that require solutions which exhibit mutuality and reciprocity. These problems occur in a wide variety of activities, such as food supply, ecology, health care delivery, language planning, information exchange, economic and social developments, law, technology transfer, and even philosophy and the arts. The Global Awareness Area recognizes the need for an understanding of the values, elements, and social processes of cultures other than the culture of the United States. The Global Awareness Area includes courses that recognize the nature of other contemporary cultures and the relationship of the American cultural system to generic human goals and welfare.

Courses that satisfy the global awareness option in the requirements are of one or more of the following types:

- a. Area studies that are concerned with an examination of culture-specific elements of a region of the world;
- b. The study of a non-English language;
- c. Studies of international relationships, particularly those in which cultural change is facilitated by such factors as social and economic development, education, and the transfer of technology; and
- d. Studies of cultural interrelationships of global scope such as the global interdependence produced by problems of world ecology.

Historical Awareness [H]

The Historical Awareness Area option in the requirements aims to develop a knowledge of the past that can be useful in shaping the present and future. Because historical forces and traditions have created modern life and lie just beneath its surface, historical awareness is an aid in the analysis of present-day problems. Also, because the historical past is a source of social and national identity, historical study can produce intercultural understanding by tracing cultural differences to their origins. Even the remote past may have instructive analogies for the present.

The Historical Awareness Area consists of courses that are historical in method and content. In this area, the term “history” designates a sequence of past events or a narrative whose intent or effect is to represent such a sequence.

The requirement presumes that these are human events and that history includes all that has been felt, thought, imagined, said, and done by human beings. History is present in the languages, art, music, literature, philosophy, religion, and the natural sciences, as well as in the social science traditionally called history.

Associate in Arts (AA) Degree Maricopa County Community Colleges District (MCCCD) 2022-2023

Description

The Maricopa County Community College District Associate in Arts (AA) degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Arts, Emphasis in Psychology). Refer to the Program (Degree) Search at <https://curriculum.maricopa.edu/> for credit minimums for individual degree programs by emphasis. A minimum grade point average of 2.0 and grades of “C” or higher are required to earn the degree. The AA degree is governed by the MCCCD General Academic Policies for Associate Degrees Designed for University Transfer (<https://curriculum.maricopa.edu/curriculum/degrees-certificates/associate-degrees/academic-policies/>).

The Associate in Arts degree includes the following components:

- I. Program Prerequisites (if applicable, for versions with an emphasis only)
- II. Required Courses (for versions with an emphasis only)
- III. Restricted Electives (for versions with an emphasis only)
- IV. Arizona General Education Curriculum for Arts (AGEC-A)
- V. MCCCD Additional Requirements (Oral Communication and Critical Reading)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Arts (AA) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Liberal Arts or programs of study other than business or science. Generally, the degree will transfer as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCCD Associate in Arts (AA) will apply to general university graduation requirements of the majors that align with the AA degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AA with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com (<https://aztransfer.com/>)

Degree Requirements

The requirements for the Associate in Arts (AA) follow. No versions of the Associate in Arts require fewer than a minimum of 60 credits; however, minimum credits for the AA vary by specific emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for credit minimums by emphasis. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/2/wo/qEBwEeu9k5ESxdFSGt3Jxw/5.0.105.5/>) and the AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>). Courses available for both Areas during a current or upcoming semester can also be found using the “Find

a Class” tool on maricopa.edu (<https://www.maricopa.edu/>) and on each MCCC college’s website.

Degree Requirements

I. Program Prerequisites - Credits: Number Varies

Program prerequisites for the Associate in Arts degree vary by specific emphasis, and are not required for the version of the degree without a specific emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for specific courses and credit minimums by emphasis.

II. Required Courses - Credits: Number Varies

Students must complete FYE101 (1) OR FYE103 (3) and select the required courses for the specific Associate in Arts degree emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for specific courses and credit minimums by emphasis.

III. Restricted Electives - Credits: Number Varies

Restricted electives for the Associate in Arts degree vary by specific emphasis, and are not required for the version of the degree without a specific emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for specific courses and credit minimums by emphasis.

IV. Arizona General Education Curriculum-Arts (AGEC-A) - Credits: up to 44

The AGECA requires a minimum of 35 credits (32 if FYC is met by single transfer course)¹. However, prerequisite/required/restricted elective courses may also meet AGECA requirements and credits count once toward the total for the degree. Therefore, the AGECA may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)¹ as long as all requirements listed in this section (IV) are completed.

Courses applied to meet AGECA requirements vary by emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well other AGECA requirements, Required Course(s) or Restricted Elective(s). AGECA designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGECA matrix for each course’s value(s) in the semester it is taken.

Code	Title	Credits	Semester
First-Year Composition (FYC) ¹			
ENG101	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L)			
Select three credits		3	_____
Mathematical Applications (MA)			
Select one of the following:		3-6	_____
<i>College Mathematics</i>			
MAT140	College Mathematics		_____

MAT141	College Mathematics		_____
MAT142	College Mathematics		_____
MAT145	College Mathematics with Review		_____
MAT146	College Mathematics with Review		_____
<i>College Algebra</i>			
MAT150	College Algebra/Functions		_____
MAT151	College Algebra/Functions		_____
MAT152	College Algebra/Functions		_____
MAT155	College Algebra/Functions with Review		_____
MAT156	College Algebra/Functions with Review		_____
<i>Precalculus</i>			
MAT187	Precalculus		_____
<i>Higher (MA)-approved Course</i>			
Higher (MA)-approved general education course			_____
Computer/Statistics/Quantitative Applications (CS)			
Select three credits		3	_____
Humanities, Arts and Design (HU)			
Students are encouraged to choose course work from more than one discipline.		6	_____
Social-Behavioral Sciences (SB)			
Students are encouraged to choose course work from more than one discipline.		6	_____
Natural Sciences (SQ/SG)			
The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.		8	_____
Awareness Areas			
Courses may be used to satisfy other AGECA requirements and one or more Awareness Area(s). ²		0-6	_____

Cultural Diversity in the United States (C) _____
 Global Awareness (G) or _____
 Historical Awareness (H) _____

¹FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full. See AGECEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for current course values.

V. MCCCDC Additional Requirements - Credits: 0-6

As noted below, courses in this area may also be applied toward AGECEC-A requirements.

Code	Title	Credits	Semester
Oral Communication			
Select one of the following:		0-3	_____
COM100	Introduction to Human Communication (SB)	_____	_____
COM110	Interpersonal Communication (SB)	_____	_____
COM225	Public Speaking (L)	_____	_____
COM230	Small Group Communication (SB)	_____	_____
or all of the following (SB):			
COM100AA & COM100AB & COM100AC	Introduction to Human Communication Part I and Introduction to Human Communication Part II and Introduction to Human Communication Part III	_____	_____
or all of the following (SB):			
COM110AA & COM110AB & COM110AC	Interpersonal Communication Part I and Interpersonal Communication Part II and Interpersonal Communication Part III	_____	_____
Critical Reading			
Select one of the following:		0-3	_____

CRE101 College Critical Reading and Critical Thinking (L) _____

Equivalent as indicated by assessment _____

VI. General Electives - Credits: 0-28

Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com (<https://aztransfer.com/>), <https://www.maricopa.edu/degrees-certificates/transfer/pathways-partners> (<https://www.maricopa.edu/degrees-certificates/transfer/pathways-partners/>), as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

Associate in Arts Total Credits: 60-64¹

¹ 64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

Associate in Arts, Elementary Education Degree (AAEE)



EDUCATION

Maricopa County Community Colleges (MCCCDC) 2022-2023

Description

The Maricopa County Community College District Associate in Arts, Elementary Education (AA-EE) degree requires a minimum of 60 semester credits for the program of study. A minimum grade point average of 2.0 and grades of "C" or higher are required to earn the degree. The AA-EE degree is governed by the MCCCDC General Academic Policies for

Transfer Degrees (<https://curriculum.maricopa.edu/curriculum/degrees-certificates/associate-degrees/academic-policies/>).

The Associate in Arts, Elementary Education degree includes the following components:

- I. Required Courses
- II. Restricted Electives
- III. Arizona General Education Curriculum for Arts (AGEC-A)
- IV. MCCC Additional Requirements (Oral Communication and Critical Reading)

Purpose of the Degree

The Associate in Arts, Elementary Education (AA-EE) degree is designed for the student who plans to transfer to an Elementary Education, Early Childhood, Multicultural/Multilingual, or Special Education program at an Arizona public higher education institution and/or who plans to become a classroom instructional aide. Generally, the degree transfers as a block without loss of credit to Arizona's public universities, and in most cases, its required courses apply to graduation requirements for these Education majors.

Degree Requirements

The requirements for the Associate in Arts in Elementary Education follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGECA (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/2/wo/qEBwEeu9k5ESxdFSGt3Jxw/5.0.105.5/>) and the AGECA matrix (<http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>). Courses available for both Areas during a current or upcoming semester can also be found using the "Find a Class" tool on maricopa.edu (<http://maricopa.edu/>) and on each MCCC college's website.

Degree Requirements

I. Required Courses - Credits: 18-20

Code	Title	Credits	Semester
EDU221	Introduction to Education	3	_____
EDU222	Introduction to the Exceptional Learner	3	_____
EDU230	Cultural Diversity In Education	3	_____
FYE101 or FYE103	Introduction to College, Career and Personal Success Exploration of College, Career and Personal Success	1-3	_____
MAT256	Investigating Quantity, Number, Operations and Numeration Systems	4	_____

MAT257	Investigating Geometry, Probability and Statistics	4	_____
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II. Restricted Electives - Credits: 8

A total of 8 semester credits is required to satisfy the Electives for Arizona Professional Teacher Standards: 3 credits in an additional Education course and 5 credits in Content Area Electives.

Courses must transfer to all public Arizona universities as elective credit, departmental elective, or equivalent to a university course as indicated in the Arizona Course Equivalency Guide in effect when the course is taken. Courses identified as non-transferable in the Arizona Course Equivalency Guide cannot be used to satisfy this requirement.

Code	Title	Credits	Semester
Restricted Electives			
Select one additional EDU course: 1		3	_____
EDU110	Education in Film (Recommended)		_____
EDU220	Introduction to Serving English Language Learners (ELL) (Recommended)		_____
EDU236	Classroom Relationships (Recommended)		_____
EDU/HUM/ STOINSTRUCT TIME292	The Art of Storytelling (Recommended)		_____
Content Area Electives			
Choose any combination from the following list of courses and prefixes to total five (5) credits of additional coursework: ²		5	_____
AAA/ CPDINSTRUCT TIME115	Creating College Success		_____
ARH+++	Any ARH Art Humanities course(s)		_____
ART+++	Any ART Art course(s)		_____
BPC+++	Any BPC Business-Personal Computers course(s)		_____
CFS/ ECHINSTRUCT TIME176	Child Development		_____

CFS205	Human Development	_____
CIS+++	Any CIS Computer Information Systems course(s)	_____
ECN+++	Any ECN Economics course(s)	_____
EDU+++	Any EDU Education course(s) ¹	_____
EED215	Early Learning: Health, Safety, Nutrition and Fitness	_____
or CFS123 & CFS125	Health and Nutrition in Early Childhood Settings and Safety In Early Childhood Settings	_____
ENG+++	Any ENG English course(s)	_____
ENH+++	Any ENH English course(s)	_____
GCU+++	Any GCU Cultural Geography course(s)	_____
GPH+++	Any GPH Physical Geography course(s)	_____
HIS+++	Any HIS History course(s)	_____
MAT+++	Any MAT Mathematics course(s) 140 or higher ²	_____
MHL+++	Any MHL Music: History/Literature course(s)	_____
MTC+++	Any MTC Music: Theory/Composition course(s)	_____
POS+++	Any POS Political Science course(s)	_____
THE+++	Any THE Theatre course(s)	_____
THF+++	Any THF Theatre and Film course(s)	_____

THP+++	Any THP Theatre Performance/Production course(s)	_____
	Any Foreign Language course(s)	_____
	Any Natural Science course(s)	_____

¹Other than EDU221 Introduction to Education, EDU222 Introduction to the Exceptional Learner, EDU230 Cultural Diversity In Education or EDU250 Teaching and Learning in the Community College Course(s) selected must be different from those used to fulfill a requirement of the AGEC-A and/or those used to fulfill Required Courses.

³Except EDU221 Introduction to Education, EDU222 Introduction to the Exceptional Learner, EDU230 Cultural Diversity In Education, and EDU250 Teaching and Learning in the Community College
⁴Except MAT256 Investigating Quantity: Number, Operations and Numeration Systems and MAT257 Investigating Geometry, Probability and Statistics

III. Arizona General Education Curriculum—Arts (AGEC-A) - Credits: 35-44¹

The AGEC-A requires a minimum of 35 credits (32 if FYC is met by single transfer course)¹, however, prerequisite/required/restricted elective courses may also meet AGEC-A requirements and credits count once toward the total for the degree. Therefore, the AGEC-A may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)¹ as long as all requirements listed in this section (III) are completed.

Courses applied to meet AGEC-A requirements vary by emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s) or Restricted Elective(s). AGEC designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

¹FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC)¹			
ENG101	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L)			

COM225	Public Speaking	3	_____
Mathematical Applications (MA)			
Select one of the following: ²			
3-6 _____			
<i>College Mathematics</i>			
MAT140	College Mathematics		_____
MAT141	College Mathematics		_____
MAT142	College Mathematics		_____
MAT145	College Mathematics with Review		_____
MAT146	College Mathematics with Review		_____
<i>College Algebra</i>			
MAT150	College Algebra/ Functions		_____
MAT151	College Algebra/ Functions		_____
MAT152	College Algebra/ Functions		_____
MAT155	College Algebra/ Functions with Review		_____
MAT156	College Algebra/ Functions with Review		_____
<i>Precalculus</i>			
MAT187	Precalculus		_____
<i>Higher Approved General Education Course</i>			
Mathematics Applications (MA) area for which MAT15+ is a prerequisite			
Computer/Statistics/Quantitative Applications (CS)			
Select one of the following:			
3 _____			
BPC110	Computer Usage and Applications		_____
CIS105	Survey of Computer Information Systems		_____
EDU/ EEDINSTRUCT TIME115	Digital Literacy for Teaching and Learning in Education (Recommended)		_____
Humanities, Arts and Design (HU)			
Note that some of these courses also have Awareness Areas designations and can be used to satisfy (G) and/or (H) requirement as well as (HU). ³			

Select one of the following ARH, DAH, MHL or THE courses:		3	_____
ARH100	Introduction to Art		_____
ARH101	Prehistoric Through Gothic Art		_____
ARH102	Renaissance Through Contemporary Art		_____
DAH100	Introduction to Dance		_____
DAH201	World Dance Studies		_____
DAH250	Dance in Popular Culture		_____
MHL140	Survey of Music History		_____
MHL145	American Jazz and Popular Music		_____
MHL146	Survey of Broadway Musicals		_____
MHL153	Rock Music and Culture		_____
THE111	Introduction to Theatre		_____
THE220	Modern Drama		_____
Select one of the following EDU, ENH or HUM courses:		3	_____
EDU/ ENHINSTRUCT TIME291	Children's Literature (Recommended)		_____
ENH110	Introduction to Literature		_____
ENH241	American Literature Before 1860		_____
ENH242	American Literature After 1860		_____
HUM250	Ideas and Values in the Humanities: Early Civilizations to the Renaissance		_____
HUM251	Ideas and Values in the Humanities: Renaissance to the Contemporary World		_____
Social-Behavioral Sciences (SB)			

Note that some of these courses also have Awareness Areas designations and can be used to satisfy (G) and/or (H) requirement as well as (SB).³

Select one of the following US History/Government courses:⁴ 3

These courses satisfy the United States Constitution requirement for state teacher certification.

GCU/ United States

POSINSTRUCT Arizona

TIME113 Social Studies

HIS103 United States
History to 1865

POS110 American
National
Government

Select one of the following CFS, ECH, GCU, ECN, HIS or PSY courses: 3

CFS205 Human
Development

CFS/
ECHINSTRUCT Child
Development
TIME176 (Recommended)

ECN211 Macroeconomic
Principles

ECN212 Microeconomic
Principles

GCU121 World
Geography
I: Eastern
Hemisphere

GCU122 World
Geography
II: Western
Hemisphere

HIS104 United States
History 1865 to
Present

PSY101 Introduction to
Psychology

Natural Sciences (SQ/SG)

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory course for a total of 4 credits each. At least four (4) credits must be designated as SQ. Eight (8) credits of SG will not satisfy this requirement

Life Sciences

Select four credits of SQ or SG in Biology (BIO) 4

Physical Sciences or Earth/Space Sciences

Select four credits of SQ or SG from one of the following prefixes: 4

AGS, ASM, AST, CHM, GPH,
GLG, PHS, or PHY

Note: Students are advised to check with the university they plan to attend as specific requirements for lab sciences may vary

Awareness Areas

Select one of the following: 0-3

Cultural Diversity in the United States (C)⁵

Global Awareness (G) or
Historical Awareness (H)⁶

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full. Note that MAT182 Plane Trigonometry, MAT206 Elements of Statistics, MAT256 Investigating Quantity: Number, Operations and Numeration Systems, MAT257 Investigating Geometry, Probability and Statistics do NOT meet this requirement.

² AGEC designations are subject to change. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

³ State certification requirements include courses on the constitutions of U.S. and Arizona. Taking GCU113 United States and Arizona Social Studies/POS113 United States and Arizona Social Studies for (SB) fulfills this requirement completely. Students who instead take HIS103 United States History to 1865 or POS110 American National Government for (SB) should consider taking POS221 as a Content Area Elective so they have completed study of both constitutions. POS220 U.S. and Arizona Constitution meets state certification requirements for both constitutions but does not meet (SB).

⁴ Met by EDU222 Introduction to the Exceptional Learner and EDU230 Cultural Diversity In Education in Required Courses

⁵ May be met by [HU] and/or [SB] course depending on specific courses selected. (AGEC designations are subject to change. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.)

IV. MCCC Additional Requirements - Credits: 0-3

These requirements may be shared with other AGEC requirements. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) on aztransfer.com (<https://aztransfer.com/>) for course designations.

i. Oral Communications

Met by COM225 Public Speaking in Required Courses.

ii. Critical Reading

Students may demonstrate proficiency through assessment. CRE101 College Critical Reading and Critical Thinking [L] or equivalent as indicated by assessment

Total: 60-64¹

¹ 64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

Associate in Arts, Fine Arts (AAFA)



VISUAL AND PERFORMING ARTS

Maricopa County College District (MCCCD) 2022-2023

Description

The Maricopa County Community College District Associate in Arts, Fine Arts (AAFA) degree requires a minimum of 60 semester credits for the program of study; however, minimum total credits for the AAFA vary by specific emphasis (Art, Dance, Music, Musical Theatre, Theatre). Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for credit minimums for individual degree programs by emphasis. A minimum grade point average of 2.0 and grades of "C" or higher are required to earn the degree. The AAFA degree is governed by the MCCCD General Academic Policies for Associate Degrees Designed for University Transfer (<https://curriculum.maricopa.edu/curriculum/degrees-certificates/associate-degrees/academic-policies/>).

The Associate in Arts, Fine Arts degree includes the following components:

- I. Program Prerequisites (if applicable, for versions with an emphasis only)
- II. Required Courses (for versions with an emphasis only)
- III. Restricted Electives (for versions with an emphasis only)
- IV. Arizona General Education Curriculum for Arts (AGEC-A)
- V. MCCCD Additional Requirements (Oral Communication and Critical Reading)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Arts, Fine Arts (AAFA) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors in the Fine Arts. The degree is designed to prepare students to meet selective admission criteria for programs such as the Bachelor of Fine Arts, which may require a portfolio or performance requirement.

In most cases, courses used to satisfy the MCCCD Associate in Arts, Fine Arts (AAFA) will apply to general university graduation requirements of the majors that align with AAFA degree; however, students need to pay attention to any specific requirements of their intended focus at the university to be sure they select courses that will meet them. Information regarding the articulation of the AAFA degree with majors at the Arizona public universities can be accessed via the following website: www.aztransfer.com (<http://www.aztransfer.com>)

Degree Requirements

The requirements for the Associate in Arts, Fine Arts (AAFA) follow. No versions of the AAFA require fewer than a minimum of 60 credits; however, minimum total credits for the AAFA vary by specific emphasis (Art, Dance, Music, Musical Theatre, Theatre). Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for credit minimums by emphasis. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-A (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/2/wo/qEBwEeu9k5ESxdFSGt3Jxw/5.0.105.5/>) and the AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>). Courses available for both Areas during a current or upcoming semester can also be found using the "Find a Class" tool on maricopa.edu and on each MCCCD college's website.

Degree Requirements

- I. **Program Prerequisites - Credits: Number Varies**
Program prerequisites for the Associate in Arts, Fine Arts degree vary by specific emphasis (Art, Dance, Music, Musical Theatre, Theatre). Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for specific courses and credit minimums by emphasis.
- II. **Required Courses - Credits: Number Varies**
Students must complete FYE101 or FYE103 and select the required (major-specific) courses for the Associate in Arts, Fine Arts degree vary by specific emphasis (Art, Dance, Music, Musical Theatre, Theatre). Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for specific courses and credit minimums by emphasis.
- III. **Restricted Electives - Credits: Number Varies**
Restricted electives for the Associate in Arts, Fine Arts degree vary by specific emphasis, and are not required for versions of the degree without a specific emphasis. (Art, Dance, Music, Musical Theatre, Theatre). Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for specific courses and credit minimums by emphasis.
- IV. **Arizona General Education Curriculum-Arts (AGEC-A) - Credits: up to 44**
The AGEC-A requires a minimum of 35 credits (32 if FYC is met by single transfer course)¹. However, prerequisite/required/restricted elective courses may also meet AGEC-A requirements and credits count once toward the total for the degree. Therefore, the AGEC-A may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)¹ as long as all requirements listed in this section (IV) are completed.

Courses applied to meet AGEC-A requirements vary by emphasis (Art, Dance, Music, Musical Theatre, Theatre). Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Area designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s) or Restricted Elective(s). AGEC designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/>)

agecMatrixReport/?inst=001075) for each course's value(s) in the semester it is taken.

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC)			
ENG101	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L)			
Select three credits		3	_____
Mathematical Applications (MA)			
Select one of the following:		3-6	_____
<i>College Mathematics</i>			
MAT140	College Mathematics		_____
MAT141	College Mathematics		_____
MAT142	College Mathematics		_____
MAT145	College Mathematics with Review		_____
MAT146	College Mathematics with Review		_____
<i>College Algebra</i>			
MAT150	College Algebra/ Functions		_____
MAT151	College Algebra/ Functions		_____
MAT152	College Algebra/ Functions		_____
MAT155	College Algebra/ Functions with Review		_____
MAT156	College Algebra/ Functions with Review		_____
<i>Higher (MA)-approved Course</i>			
Higher (MA)-approved general education course			_____
Computer/Statistics/Quantitative Applications (CS)			
Select three credits		3	_____
Humanities, Arts and Design (HU)			
Select six credits		6	_____
Social-Behavioral Sciences (SB)			
Students are encouraged to choose course work from more than one discipline.		6	_____

Natural Sciences (SQ/SG)

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement	8	_____
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Awareness Areas

Courses may be used to satisfy other AGECE requirements and one or more Awareness Area(s). ²	0-6	_____
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Cultural Diversity in the United States (C)

Global Awareness (G) or Historical Awareness (H)

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full. See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for current course values.

V. MCCC Additional Requirements - Credits: 0-6

These requirements may be shared with other AGECE requirements. See the AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) on aztransfer.com (<http://aztransfer.com/>) for course designations.

Code	Title	Credits	Semester
Oral Communication			
Refer to emphasis area (Art, Dance, Music, Musical Theatre, Theatre) for specific COM courses required from the following.			
Select one of the following:		0-3	_____
COM100	Introduction to Human Communication (SB)		_____
COM110	Interpersonal Communication (SB)		_____
COM225	Public Speaking (L)		_____
COM230	Small Group Communication (SB)		_____
or all of the following (SB):			

COM100AA Introduction
& COM100AB to Human
Communication
& COM100AC Part I
and
Introduction
to Human
Communication
Part II
and
Introduction
to Human
Communication
Part III

or all of the following (SB):

COM110AA Interpersonal
& COM110AB Communication
Part I
& COM110AC and
Interpersonal
Communication
Part II
and
Interpersonal
Communication
Part III

Critical Reading

Complete one of the following: 0-3

CRE101 College Critical
Reading and
Critical Thinking
(L)

Demonstrate proficiency as
indicated by assessment

VI. General Electives - Credits: 0-25

Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona’s public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com (<http://aztransfer.com>), maricopa.edu/transfer/partners (<https://www.maricopa.edu/degrees-certificates/transfer/pathways-partners/>), as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

**64 semester credits is the maximum accepted toward most degree programs at Arizona’s public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

Associate in Science, (AS) Degree Maricopa County Community College District (MCCCD) 2022-2023

Description

The Maricopa County Community College District Associate in Science (AS) degree requires a minimum of 60 semester credits for the program of study; minimum total credits vary by specific emphasis (for example, Associate in Science, Emphasis in Physics). Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for credit minimums for individual degree programs by emphasis. A minimum grade point average of 2.0 is required to earn the degree. The AS degree is governed by the MCCCD General Academic Policies for Transfer Degrees (<https://curriculum.maricopa.edu/curriculum/degrees-certificates/associate-degrees/academic-policies/>).

The Associate in Arts degree includes the following components:

- I. Program Prerequisites (if applicable, for versions with an emphasis only)
- II. Required Courses (for versions with an emphasis only)
- III. Restricted Electives (for versions with an emphasis only)
- IV. Arizona General Education Curriculum for Science (AGEC-S)
- V. MCCCD Additional Requirements (Oral Communication and Critical Reading)
- VI. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Science (AS) degree is designed for students planning to transfer to four-year colleges and universities. In general, the components of the degree meet requirements for majors with more stringent mathematics and mathematics-based science requirements. Generally, the degree will transfer as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements.

In most cases, courses used to satisfy the MCCCD Associate in Science (AS) will apply to general university graduation requirements of the majors that align with the AS degree; however, students need to be aware of any specific requirements of their intended major at the university to be sure they select courses that will meet them. Information regarding the articulation of the AS with majors at the Arizona public universities can be accessed via the following website: aztransfer.com (<http://aztransfer.com>)

It is recommended that students select courses that meet more than one general education and/or awareness area requirement. Doing so will maximize the number of math and science electives the student can take as part of his/her Associate in Science degree.

Special Academic Policies that Govern the Associate in Science Degree

- The AGECS does not require a course with [CS] Computer/Statistics designation.
- Unlike the AGECA and AGECS, the same course is allowed to satisfy the ([L] and [HU]) or ([L] and [SB]) areas of the AGECS’s Core Area.

The credits for such a “shared” course are only counted one time toward the required minimum for the degree.

Degree Requirements

The requirements for the Associate in Science follow. All versions of the Associate in Science require at least 60 credits; for major-specific pathways within the degree, prescribed courses and minimum credits for categories within the degree, as well as the total, vary. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>) for credit minimums for major-specific pathways within the degree. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGEC-S (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/2/wo/qEBwEeu9k5ESxdFSGt3Jxw/5.0.105.13>) and the AGEC Matrix (<http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>). Courses available for both Areas during a current or upcoming semester can also be found using the “Find a Class” tool on each MCCC college’s website.

Degree Requirements

I. Program Prerequisites - Credits: Number varies

Program prerequisites for the Associate in Science degree vary by specific emphasis, and are not required for the version of the degree without a specific emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for specific courses and credit minimums by emphasis.

II. Required Courses - Credits: Number varies

Students must complete FYE101 (1) or FYE103 (3) and select the required courses for the specific Associate in Science degree emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for specific courses and credit minimums by emphasis.

III. Restricted Electives - Credits: Number varies

Restricted electives for the Associate in Science degree vary by specific emphasis, and are not required for the version of the degree without a specific emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu (<http://curriculum.maricopa.edu>) for specific courses and credit minimums by emphasis.

IV. Arizona General Education Curriculum—Science (AGEC-S) - Credits: Up to 56

The AGEC-S requires a minimum of 36 credits (33 if FYC is met by single transfer course).¹ However, prerequisite/required/restricted elective courses may also meet AGEC-S requirements and credits count once toward the total for the degree. Therefore, the AGEC-S may be met with fewer than 36 credits (33 if FYC is met by single transfer course)¹ as long as all requirements listed in this section (IV) are completed.

Courses applied to meet AGEC-A requirements vary by emphasis. Refer to the Program (Degree) Search at curriculum.maricopa.edu for specific course requirements. Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGEC requirements, Required Course(s) or Restricted Elective(s). AGEC designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course’s value(s) in the semester it is taken.

FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC)			
ENG101	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L) ²			
	Students are strongly encouraged to choose an (L) course that also has (HU) or (SB) designation ^{3,4}	0-3	_____
Mathematical Applications (MA)			
	Requires the first semester of calculus courses designed for scientists and engineers ⁵ or any other (MA) designated course for which Calculus I is a prerequisite.	4-5	_____
Humanities, Arts and Design (HU)			
	For the AGEC-S, a single course with both (HU) and (L) designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy (C), (G) and/or (H) requirement(s) as well. ⁴	6	_____
Social-Behavioral Sciences (SB)			
	For the AGEC-S, a single course with both (SB) and (L) designations may satisfy both Areas. Note that some of these courses also have Awareness Areas designations and can be used to satisfy (C), (G) and/or (H) requirement(s) as well. ⁴	6	_____
Natural Sciences (SQ/SQ)			
	Students must complete eight (8) to ten (10) credits of General Chemistry, University Physics, General Biology for Majors, or Physical and Historical Geology. Consult specific requirements of university transfer major for guidance.		_____
	Select one of the following sequences:	8-10	_____
	<i>General Chemistry</i>		_____

CHM150 & CHM151LL & CHM152 & CHM152LL	General Chemistry I and General Chemistry I Laboratory and General Chemistry II and General Chemistry II Laboratory		PHY115 & PHY116	University Physics I and University Physics II	
CHM150 & CHM151LL & CHM152AA	General Chemistry I and General Chemistry I Laboratory and General Chemistry II		PHY115 & PHY131	University Physics I and University Physics II: Electricity and Magnetism	
CHM151 & 151LL & CHM152 & CHM152LL	General Chemistry I and General Chemistry I Laboratory and General Chemistry II and General Chemistry II Laboratory		PHY121 & PHY116	University Physics I: Mechanics and University Physics II	
CHM151 & 151LL & CHM152AA	General Chemistry I and General Chemistry I Laboratory and General Chemistry II		PHY121 & PHY131	University Physics I: Mechanics and University Physics II: Electricity and Magnetism	
CHM150AA & CHM152 & CHM152LL	General Chemistry I and General Chemistry II and General Chemistry II Laboratory		<i>General Biology for Majors</i>		
CHM151AA & CHM152 & CHM152LL	General Chemistry I and General Chemistry II and General Chemistry II Laboratory		BIO181 & BIO182	General Biology (Majors) I and General Biology (Majors) II	
CHM150AA & CHM152AA	General Chemistry I and General Chemistry II		BIO181 & BIO182XT	General Biology (Majors) I and General Biology (Majors) II	
CHM151AA & CHM152AA	General Chemistry I and General Chemistry II		BIO181XT & BIO182	General Biology (Majors) I and General Biology (Majors) II	
CHM151AA & CHM152AA	General Chemistry I and General Chemistry II		BIO181XT & BIO182XT	General Biology (Majors) I and General Biology (Majors) II	
<i>University Physics</i>			<i>Physical and Historical Geology</i>		
			GLG101 & GLG103	Introduction to Geology I - Physical Lecture	
				and Introduction to Geology I - Physical Lab	
			or GLG101IN	Introduction to Geology I - Physical	

GLG102IN & GLG104	Introduction to Geology II - Historical and Introduction to Geology II - Historical Lab	_____
or GLG102	Introduction to Geology II - Historical Lecture	_____

Subject Options - Math/Science

Refer to transfer resources, including academic advisement and transfer guides, to select six (6)-ten (10) additional math and/or science credits that meet requirements for selected major. 6-10

Select Mathematics course(s) (MAT) above Calculus I and/or

Computer Science course(s) (CSC) and/or

Science courses from the following disciplines: Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Physical Geography, Physics, Zoology⁶

Awareness Areas

Courses may be used to satisfy other AGEC requirements and one or more Awareness Area(s).⁷ 0-6

Cultural Diversity in the United States (C)

Global Awareness (G) or Historical Awareness (H)

¹FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

²Only if shared with HU or SB

³to use CRE101 College Critical Reading and Critical Thinking or COM225 Public Speaking from the Maricopa Additional Requirements Area to satisfy the [L] requirement. It may also have been approved to satisfy one or more Awareness Areas ([C], [G], [H])

⁴AGEC designations are subject to change. See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

⁵MAT220 Calculus with Analytic Geometry I or MAT221 Calculus with Analytic Geometry I

⁶MCCCD prefixes AST, BIO (except BIO174 Biosafety), CHM, ECE, EEE, ENV, GLG, GPH, and/or PHY

⁷See AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for current course values.

V. MCCCD Additional Requirements - Credits: 0-6

Some courses in this area have [SB] and [L] designations and may also be applied to the corresponding AGEC requirements. See the AGEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/>

[agec.woa/3/wa/agecMatrixReport/?inst=001075](https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075)) on aztransfer.com (<http://aztransfer.com>) for course designations.

Code	Title	Credits	Semester
Oral Communication			
Select one of the following:		0-3	_____
COM100	Introduction to Human Communication (SB)	_____	_____
COM110	Interpersonal Communication (SB)	_____	_____
COM225	Public Speaking (L)	_____	_____
COM230	Small Group Communication (SB)	_____	_____
or all of the following (SB):			
COM100AA & COM100AB & COM100AC	Introduction to Human Communication Part I and Introduction to Human Communication Part II and Introduction to Human Communication Part III	_____	_____
or all of the following (SB):			
COM110AA & COM110AB & COM110AC	Interpersonal Communication Part I and Interpersonal Communication Part II and Interpersonal Communication Part III	_____	_____
Critical Reading			
Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking	_____	_____
OR Equivalent as indicated by assessment			

VI. General Electives - Credits: 0-28

Select courses 100-level or higher if needed to complete a minimum of 60 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate

Degree Academic Policies for further details, limitations, and guidelines.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of “C” or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer and major guides are accessible on the following websites: aztransfer.com (<https://aztransfer.com/>), maricopa.edu/transfer/partners (<https://www.maricopa.edu/degrees-certificates/transfer/pathways-partners/>), as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

Total: 60-64¹

64 semester credits is the maximum accepted toward most degree programs at Arizona’s public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

Associate in Business, General Requirements (ABUS-GR) Degree



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Maricopa County Community College District (MCCCD) 2022-2023

Description

The Maricopa County Community College District Associate in Business General Requirements (ABUS-GR) degree requires a minimum of 62 semester credits for the program of study. A minimum grade point average of 2.0 and grades of “C” or higher are required to earn the degree. The Associate in Business-General Requirements degree is governed by the MCCCD General Academic Policies for Transfer Degrees. (<https://curriculum.maricopa.edu/curriculum/degrees-certificates/associate-degrees/academic-policies/>)

This degree provides the first two years of a four-year curriculum for students who wish to specialize in business. For a comprehensive list of bachelor’s degrees at Arizona’s public universities, refer to the AZTransfer Business Matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/ATASS.woa/wa/ViewMatrixReport/?Code=BUS>). With a bachelor’s degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management.

The Associate in Business-General Requirements degree includes the following components:

- I. Required Courses
- II. Restricted Electives
- III. Arizona General Education Curriculum for Business (AGEC-B)
- IV. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Business General Requirements (ABUS-GR) degree is designed for students who plan to transfer to four-year colleges and universities. In general, the components of this degree meet requirements for the various business majors (except Computer Information Systems) at Arizona’s public universities. Computer Information Systems majors should follow the Associate in Business Special Requirements (ABUS-SR) pathway instead. Generally, the degree transfers as a block without loss of credit to Arizona’s public universities and other institutions with district-wide articulation agreements.

Special Academic Policies that Govern the ABUS-GR Degree

- The ABUS-GR does not include any MCCCD Special Requirements for Oral Communication and/or Critical Reading like the other associate degrees. (However, some university programs have a speech requirement; consult your academic advisor or transfer guide to verify the specifics for your program.)
- A single course can be used to satisfy multiple areas within the degree simultaneously: (Awareness Area(s), other AGECEC-B requirements), Required Courses (Common Lower Division Requirements), and/or Restricted Electives (Business Electives)). Credits are counted once toward the total for the degree.

Degree Requirements

The courses required for the Associate in Business General Requirements follow. The following websites identify the courses that apply to the different General Education Areas: AGECEC-B (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/2/wo/qEBwEeu9k5ESxdFSGt3Jxw/5.0.105.9/>) and the AGECEC Matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>). Courses available for both Areas during a current or upcoming semester can also be found using the “Find A Class” tool on each MCCCD college’s website.

Degree Requirements

I. Required Courses - Credits: 22-28

Code	Title	Credits	Semester
Required Courses			
<i>Accounting</i>			
Select one of the following:		6-9	_____
ACC111 & ACC230 & ACC240	Accounting Principles I and Uses of Accounting Information I and Uses of Accounting Information II		_____
ACC211 & ACC212	Financial Accounting and Managerial Accounting		_____

ACC111 & ACC112 & ACC212	Accounting Principles I and Accounting Principles II and Managerial Accounting		_____
<i>Other Courses</i>			
Some of the following courses can be used to satisfy both this requirement and an AGECE-B requirement. AGECE designations are subject to change. ¹			
ECN211	Macroeconomic Principles (SB)	3	_____
ECN212	Microeconomic Principles (SB)	3	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
GBS205	Legal, Ethical, and Regulatory Issues in Business	3	_____
GBS221	Business Statistics	3	_____
<i>Quantitative Methods</i>			
Select one of the following:		3-4	_____
GBS220	Quantitative Methods in Business		_____
MAT217	Mathematical Analysis for Business		_____
MAT218	Mathematical Analysis for Business		_____

¹ See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agece/>) for each course's value(s) in the semester it is taken.

Note: Students planning to transfer to ASU's W.P. Carey School of Business BS program should take MAT217 Mathematical Analysis for Business or MAT218 Mathematical Analysis for Business. Students planning to transfer to ASU's W.P. Carey School of Business BA program may take GBS220 Quantitative Methods in Business, MAT217 Mathematical Analysis for Business, or MAT218 Mathematical Analysis for Business. Students planning to transfer to the University of Arizona should take GBS220 Quantitative Methods in Business

II. Restricted Electives - Credits: 0-6

Complete six (6) credits from the following options. Some courses may be used to satisfy both Restricted Elective and Arizona General Education Curriculum (AGECE) requirements simultaneously. See the AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agece.woa/3/wa/ageceMatrixReport/?inst=001075>) on

aztransfer.com (<https://aztransfer.com/>) for course designations. AGECE designations are subject to change. See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agece.woa/3/wa/ageceMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

Code	Title	Credits	Semester
Select two of the following:		0-6	_____
CIS114DE	Excel Spreadsheet		_____
CIS133DA	Internet/Web Development Level I		_____
CIS162AD	C#: Level I		_____
GBS110	Human Relations in Business and Industry		_____
or MGT251	Human Relations in Business		_____
GBS151	Introduction to Business (Recommended)		_____
GBS220	Quantitative Methods in Business (if course is used to satisfy Required Courses, it cannot be used to satisfy Restricted Electives)		_____
GBS233	Business Communication		_____
IBS101	Introduction to International Business		_____
MGT253	Owning and Operating a Small Business		_____
MKT271	Principles of Marketing		_____
PAD100	21st Century Public Policy and Service		_____
REA179	Real Estate Principles I		_____
REA180	Real Estate Principles II		_____
REA201	Real Estate Principles I and II		_____
SBU200	Society and Business		_____

III. Arizona General Education Curriculum-Business (AGECE-B) - Credits: 29-37¹

The AGECE-B requires a minimum of 35 credits (32 if FYC is met by single transfer course).¹ However, Required and Restricted elective courses may also meet AGECE-B requirements and credits count once toward the total for the degree. Therefore, the AGECE-B may be met with fewer than 35 (fewer than 32 if FYC is met by single transfer course)¹ credits as long as all requirements listed in this section (III) are completed.

Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGECE requirements, Required Course(s) or Restricted Elective(s). AGECE designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

¹FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC)¹			
ENG101	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L)			
May be met by GBS233 in the Restricted Electives Area.		0-3	_____
Mathematical Applications (MA)			
Select one of the following:		3-5	_____
MAT212	Brief Calculus		_____
MAT213	Brief Calculus		_____
Higher General Education Courses in the Mathematical Applications (MA) Area			_____
Computer/Statistics/Quantitative Applications (CS)			
CIS105	Survey of Computer Information Systems	3	_____
Humanities, Arts and Design (HU)			
Students are encouraged to choose course work from more than one discipline.		6	_____
Social-Behavioral Sciences (SB)			
Met by Required Courses ²		0	_____
Natural Sciences (SQ/SG)			

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement.	8	_____
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Awareness Areas		
Courses may be used to satisfy other AGECE requirements and one or more Awareness Area(s). ³		
Select up to six credits from the following:	0-6	_____
Cultural Diversity in the United States (C)		_____
Global Awareness (G) or Historical Awareness (H)		_____

¹FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

²ECN211 Macroeconomic Principles AND ECN212 Microeconomic Principles

³See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>) for current course values.

Students transferring to ASU to major in business should complete courses from the following list (up to the 64 credit transfer maximum) to meet W.P. Carey School of Business requirements. If students do not take these prior to transfer, they may need to take additional credits to meet ASU graduation requirements:

Code	Title	Credits	Semester
Any course that transfers to ASU in the SOC prefix and carries the (SB) designation			
Any course that transfers to ASU in the PSY prefix and carries the (SB) designation			
Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____
COM259	Communication in Business and Professions		_____

Note: COM requirements vary by business major. Check ASU MAPP or major map for acceptable options.

IV. General Electives

Select courses 100-level or higher if needed to complete a minimum of 62 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer advisement information is accessible on the following websites: aztransfer.com (<http://aztransfer.com>), curriculum.maricopa.edu (<http://curriculum.maricopa.edu>), as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

Total: 62¹

¹ 64 semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathways.

Associate in Business, Special Requirements (ABUS-SR) Degree



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Maricopa County Community College District (MCCCD) 2022-2023

Description

The Maricopa County Community College District Associate in Business, Special Requirements (ABUS-SR) degree requires a minimum of 62 semester credits for the program of study. A minimum grade point average of 2.0 and grades of "C" or higher are required to earn the degree.

This degree provides the first two years of a four-year curriculum for students who wish to pursue Computer Information Systems majors at Arizona's public universities. With a bachelor's degree, students may pursue a number of careers, including but not limited to accountancy, business administration, business data analytics, computer information systems, economics, entrepreneurship, finance, marketing, management, retail management, and supply chain management. The Associate in Business-Special Requirements degree is governed by the MCCCD General Academic Policies for Transfer Degrees (<https://curriculum.maricopa.edu/curriculum/degrees-certificates/associate-degrees/academic-policies/>).

The Associate in Business-Special Requirements degree includes the following components:

- I. Required Courses
- II. Arizona General Education Curriculum for Business (AGEC-B)
- III. General Electives (if needed to reach minimum credits for degree)

Purpose of the Degree

The Associate in Business Special Requirements (ABUS-SR) degree is designed for students who plan to transfer to four-year colleges and universities. In general, the components of this degree meet requirements for Business' Computer Information Systems majors at Arizona's public universities. Other Business majors should follow the Associate in Business General Requirements (ABUS-GR) pathway instead. Generally, the degree transfers as a block without loss of credit to Arizona's public universities and other institutions with district-wide articulation agreements.

Special Academic Policies that Govern the ABUS-SR Degree

- The ABUS-SR does not include any MCCCD Special Requirements for Oral Communication and/or Critical Reading like the other associate degrees. (However, some university programs have a speech requirement; consult your academic advisor or transfer guide to verify the specifics for your program.)
- A single course can be used to satisfy multiple areas within the degree simultaneously (AGEC-B Core Area and/or Awareness Area(s), Required Courses (Common Lower Division Requirements), and/or Restricted Electives (Business Electives)). Credits are counted once toward the total for the degree.

Degree Requirements

The courses required for the Associate in Business Special Requirements follow. The following websites identify the courses that apply to the different General Education Core and Awareness Areas: AGECEC-B (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/2/wo/qEBwEeu9k5ESxdFSGt3Jxw/5.0.105.9/>) and the AGECEC Matrix (<http://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/3/wa/agecMatrixReport/?inst=001075>). Courses available for both Areas during a current or upcoming semester can also be found using the "Find A Class" tool on each MCCCD college's website.

Degree Requirements

I. Required Courses - Credits: 28-34

Code	Title	Credits	Semester
Required Courses			
<i>Accounting</i>			
Select six to nine credits from the following:		6-9	_____
ACC111 & ACC230 & ACC240	Accounting Principles I and Uses of Accounting Information I and Uses of Accounting Information II		_____

ACC211 & ACC212	Financial Accounting and Managerial Accounting		_____
ACC111 & ACC112 & ACC212	Accounting Principles I and Accounting Principles II and Managerial Accounting		_____
<i>Other Courses</i> _____			
Some of the following courses can be used to satisfy both this requirement and an AGECE-B requirement. AGECE designations are subject to change. ¹			
ECN211	Macroeconomic Principles (SB)	3	_____
ECN212	Microeconomic Principles (SB)	3	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
GBS205	Legal, Ethical, and Regulatory Issues in Business	3	_____
GBS221	Business Statistics	3	_____
CIS162AD	C#: Level I	3	_____
CIS250	Management of Information Systems	3	_____
<i>Quantitative Methods</i> ² _____			
Select one of the following: 3-4 _____			
GBS220	Quantitative Methods in Business		_____
MAT217	Mathematical Analysis for Business		_____
MAT218	Mathematical Analysis for Business		_____

¹ See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agece/>) for each course's value(s) in the semester it is taken.

Note: Students planning to transfer to ASU's W.P. Carey School of Business BS program should take MAT217 Mathematical Analysis for Business or MAT218 Mathematical Analysis for Business. Students planning to transfer to ASU's W.P. Carey School of Business BA program may take GBS220 Quantitative Methods in Business, MAT217 Mathematical Analysis for Business, or MAT218 Mathematical Analysis

for Business. Students planning to transfer to the University of Arizona should take GBS220 Quantitative Methods in Business

II. Arizona General Education Curriculum- Business (AGECE-B) - Credits: 29-37¹

The AGECE-B requires a minimum of 35 credits (32 if FYC is met by single transfer course)¹. However, Required and Restricted elective courses may also meet AGECE-B requirements and credits count once toward the total for the degree. Therefore, the AGECE-B may be met with fewer than 35 credits (fewer than 32 if FYC is met by single transfer course)¹ as long as all requirements listed in this section (II) are completed.

Some courses may be met by Required Courses or Restricted Electives. Some of these courses also have Awareness Areas designations and can be used to satisfy [C], [G] and/or [H] requirement(s) as well as other AGECE requirements or Required Course(s). AGECE designations are subject to change. Courses may meet more than one requirement but are only counted once toward the total credits for the degree. See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agece.woa/3/wa/ageceMatrixReport/?inst=001075>) for each course's value(s) in the semester it is taken.

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Code	Title	Credits	Semester
First-Year Composition (FYC) ¹			
ENG101	First-Year Composition ¹	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition ¹	3	_____
or ENG108	First-Year Composition for ESL		_____
Literacy and Critical Inquiry (L)			
Select three credits		3	_____
Mathematical Applications (MA)			
Select one of the following:		3-5	_____
MAT212	Brief Calculus		_____
MAT213	Brief Calculus		_____
Higher General Education Courses in the Mathematical Applications (MA) Area			
Computer/Statistics/Quantitative Applications (CS)			
CIS105	Survey of Computer Information Systems	3	_____
Humanities, Arts and Design (HU)			
Students are encouraged to choose course work from more than one discipline.		6	_____
Social-Behavioral Sciences (SB)			
Met by Required Courses ²		0	_____
Natural Sciences (SQ/SG)			

The lecture courses selected for Natural Sciences must include or be accompanied by the corresponding laboratory courses for a total of four credits each. Credits for lecture and lab components may be combined or each may carry separate credit. At least four credits must be designated as SQ-Science Quantitative. Eight credits of SG-Science General will not satisfy this requirement	8	_____
Awareness Areas		
Courses may be used to satisfy other AGECE requirements and one or more Awareness Area(s). ³		_____
Select up to six credits from the following:	0-6	_____
Cultural Diversity in the United States (C)		_____
Global Awareness (G) or Historical Awareness (H)		_____

FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.
²ECN211 Macroeconomic Principles and ECN212 Microeconomic Principles
³See AGECE matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agece/>) for current course values

Students transferring to ASU to major in business should complete courses from the following list (up to the 64 credit transfer maximum) to meet W.P. Carey School of Business requirements. If students do not take these prior to transfer, they may need to take additional credits to meet ASU graduation requirements:

Code	Title	Credits	Semester
	Any course that transfers to ASU in the SOC prefix and carries the (SB) designation		_____
	Any course that transfers to ASU in the PSY prefix and carries the (SB) designation		_____
	Select one of the following:	3	_____
COM100	Introduction to Human Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____
COM259	Communication in Business and Professions		_____

Note: COM requirements vary by business major. Check ASU MAPP or major map for acceptable options.

III. General Electives

Select courses 100-level or higher if needed to complete a minimum of 62 semester credits but no more than a total of 64 semester credits, which is the maximum number of credits accepted toward most degree programs at Arizona's public universities. Ideally, students should select courses that meet requirements for their major/area of interest and transfer institution. See General Associate Degree Academic Policies for further details, limitations, and guidelines.

Maricopa courses and external courses evaluated as Maricopa equivalents, departmental electives (e.g., HISELC for a history elective), or general electives (GENELC) that are numbered 100 level or higher, and completed with a grade of "C" or higher, may be applied in the elective area, regardless of potential transferability to other institutions. It is recommended, however, that students planning to transfer to a baccalaureate-granting institution meet these general elective requirements with courses that are transferable and applicable to their intended university degree. Transfer advisement information is accessible on the following websites: aztransfer.com (<https://aztransfer.com/>), curriculum.maricopa.edu (<https://curriculum.maricopa.edu/>), as well as those of individual universities. For appropriate course selection, students should consult with an academic advisor.

Total: 62¹

⁶⁴ semester credits is the maximum accepted toward most degree programs at Arizona's public universities. Some exceptions apply; consult with an academic advisor for additional transfer pathway.

Associate in General Studies (AGS) Degree and General Education Requirements

Maricopa County Community College District (MCCCD) 2022-2023

Description

The Maricopa County Community College District Associate in General Studies degree requires 60-64 semester credits in courses numbered 100 and above. The degree includes the following components:

- General Education (minimum of 38 credits)
Core curriculum (requires a grade of "C" or better)
Distribution courses (requires a grade of "D" or better)
- General Electives (enough additional courses numbered 100 or above, passed with a grade of "D" or better, to bring total credits to at least 60)

Purpose of the Degree

The Associate in General Studies (AGS) degree is recommended for students whose educational goals require flexibility. The degree allows students to apply any course numbered 100 or above, including some that are not transferable to the Arizona public universities and may not be transferable to other universities, toward the credits required for the degree. Therefore, for students who intend to transfer to another college or university in the future to pursue a bachelor's degree, this degree may

be less appropriate than other associate degrees offered (Associate in Arts; Associate in Arts, Elementary Education; Associate in Fine Arts; Associate in Business-General Requirements; Associate in Business-Special Requirements; Associate in Science; and all emphases under these degrees), by the Maricopa Community Colleges.

Academic Policies that Govern the Associate in General Studies Degree:

- The graduation policies within the general catalog must be satisfied (Administrative Regulation 2.3.9). First Year Experience is required (FYE 101 OR FYE 103)
- A single course can simultaneously count towards a Core Area and a Distribution requirement. Courses that meet this criterion are bold print and underscored in the Core areas and Distribution areas (on the course list at the conclusion of this document). For example, CRE101 may be used to satisfy both the Literacy and Critical Inquiry requirement [L] of Distribution area and the Core Curriculum’s Critical Reading area. While multiple requirements can be met with a single course, the credits are only counted one time toward the required minimum for the degree. A course cannot satisfy more than one Core area, even if it is approved for more than one Core area. A course cannot satisfy more than one Distribution area, even if it is approved for more than one Distribution area.
- Credits transferred from outside of MCCCDC must be at a grade of “C” (2.0 on a 4.0 scale) or better. Transfer credit graded pass/fail or pass/no credit may be transferred if documentation collected by the community college indicates that this was the only grading option available to the student and that the Pass grade (“P”) is equivalent to a “C” or better.
- Completion of the AGS with a minimum Grade Point Average of at least 2.0 on a 4.0 scale for Arizona residents and 2.50 for non-residents meets Arizona public university general admission requirements. However, meeting all AGS minimums does not ensure admission to specific university majors or programs with selective admission processes and/or limited enrollment. Furthermore, because the AGS is not designed to align with the requirements for bachelors degrees, not all credits may be transferable and students may have deficiencies in lower division (100- and 200-level) courses for a particular major.

Summary of Degree Requirements

Details on how to identify courses approved for each of the different categories is described following the outline.

Code	Title	Credits	Semester
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____

I. MCCCDC General Education - Credits: 35-48

Code	Title	Credits	Semester
Core Areas			
<i>First-Year Composition</i> ¹			
ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____

ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____
<i>Mathematics</i>			
Select three to six credits		3-6	_____
<i>Computer Usage</i>			
Select one credit		1	_____
<i>Oral Communication</i>			
Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____
COM100AA & COM100AB & COM100AC	Introduction to Human Communication Part I and Introduction to Human Communication Part II and Introduction to Human Communication Part III		_____
COM110AA & COM110AB & COM110AC	Interpersonal Communication Part I and Interpersonal Communication Part II and Interpersonal Communication Part III		_____

<i>Critical Reading</i>			
Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____
Or equivalent as indicated by assessment			_____

Distribution Areas

<i>Humanities, Arts and Design</i>			
Students are encouraged to choose course work from more than one discipline		9	_____
<i>Social-Behavioral Sciences</i>			
Students are encouraged to choose course work f rom more than one discipline. ²		6-9	_____

Natural Sciences

Two lecture courses and one corresponding laboratory course are to be selected. Credits for lecture and lab components may be combined or each may carry separate credit. For appropriate course selection students should consult with an academic advisor.	7-8	_____
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Literacy and Critical Inquiry

Select zero to three credits ³	0-3	_____
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¹ First-Year Composition may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full

² Social-Behavioral Sciences requirements may be met with 6 credits only if COM100 Introduction to Human Communication, COM110 Interpersonal Communication, or COM230 Small Group Communication is shared between Core and Distribution (see Academic Policies section on prior page). The credits are only counted once, but may be applied to meet Oral Communication and Social-Behavioral Science requirements.

³ Literacy requirement may be met with 0 credits only if CRE101 College Critical Reading and Critical Thinking or COM225 Public Speaking is shared between Core and Distribution (see Academic Policies section on prior page). The credits are only counted once, but may be applied to meet [Oral Communication and Literacy] or [Critical Reading and Literacy and Critical Inquiry] requirements.

II. General Electives - Credits: 13-26

Select additional courses 100-level or higher to complete a minimum of 60 semester credits but no more than a total of 64 semester credits.

III. Associate in General Studies Total Credits: 60-64

All courses listed meet AGS requirements as specified.

AGS General Education Core

(16 credits - grade of "C" or better¹)

¹ First-Year Composition may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full

First-Year Composition (6 Credits) ¹

Courses below meet Arizona General Education Curriculum AGECE requirements.

Code	Title	Credits	Semester
First-Year Composition ¹			
ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____
Total Credits		6	_____

¹ First-Year Composition may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full

Oral Communication (3 Credits)

Courses below simultaneously count towards a Core Area and a Distribution requirement.

Code	Title	Credits	Semester
Oral Communication			
Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM100AA & COM100AB & COM100AC	Introduction to Human Communication Part I and Introduction to Human Communication Part II and Introduction to Human Communication Part III		_____
COM110	Interpersonal Communication		_____
COM110AA & COM110AB & COM110AC	Interpersonal Communication Part I and Interpersonal Communication Part II and Interpersonal Communication Part III		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____

Critical Reading (3 Credits)

Courses below simultaneously count towards a Core Area and a Distribution requirement.

Code	Title	Credits	Semester
Critical Reading			
Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____
Or equivalent as indicated by assessment			_____

Mathematics (3 Credits)

Code	Title	Credits	Semester
Mathematics			
Select one of the following:		3	
MAT112	Mathematical Concepts and Applications		
MAT114	College Algebra Prep		
MAT115	College Algebra Prep		
MAT120	Intermediate Algebra		
MAT121	Intermediate Algebra		
MAT122	Intermediate Algebra		
MAT126	Intermediate Algebra with Review		
MAT206	Elements of Statistics		
MAT256	Investigating Quantity: Number, Operations and Numeration Systems		
MAT257	Investigating Geometry, Probability and Statistics		
Courses below meet Arizona General Education Curriculum AGEC requirements.			
MAT140	College Mathematics		
MAT141	College Mathematics		
MAT142	College Mathematics		
MAT145	College Mathematics with Review		
MAT146	College Mathematics with Review		
MAT150	College Algebra/ Functions		
MAT150 & MAT182	College Algebra/ Functions and Plane Trigonometry		
MAT151	College Algebra/ Functions		
MAT151 & MAT182	College Algebra/ Functions and Plane Trigonometry		

MAT152	College Algebra/ Functions	
MAT152 & MAT182	College Algebra/ Functions and Plane Trigonometry	
MAT155	College Algebra/ Functions with Review	
MAT155 & MAT182	College Algebra/ Functions with Review and Plane Trigonometry	
MAT156	College Algebra/ Functions with Review	
MAT156 & MAT182	College Algebra/ Functions with Review and Plane Trigonometry	
MAT172	Finite Mathematics	
MAT187	Precalculus	
MAT212	Brief Calculus	
MAT213	Brief Calculus	
MAT217	Mathematical Analysis for Business	
MAT218	Mathematical Analysis for Business	
MAT220	Calculus with Analytic Geometry I	
MAT221	Calculus with Analytic Geometry I	
MAT225	Elementary Linear Algebra	
MAT227	Discrete Mathematical Structures	
MAT230	Calculus with Analytic Geometry II	
MAT231	Calculus with Analytic Geometry II	
MAT240	Calculus with Analytic Geometry III	
MAT241	Calculus with Analytic Geometry III	
MAT261	Differential Equations	

MAT276	Modern Differential Equations	_____
MAT277	Modern Differential Equations	_____
Equivalent course/Satisfactory completion of a higher level Mathematics course.		_____

Computer Usage (1 Credit)

Computer-related course or demonstration of comparable computer skills. Additional courses may be approved by individual colleges. Students should contact their advisor for college-specific courses satisfying the requirement.

Code	Title	Credits	Semester
Core - Computer Usage			
Select 1 credit from the following:		1	_____
<i>Accounting</i>			
ACC115	Computerized Accounting	_____	_____
<i>Advertising Arts</i>			
ADA169	2D Media Design	_____	_____
ADA175	Electronic Publishing Design I	_____	_____
ADA177	Digital Photographic Imaging I	_____	_____
ADA183	Digital Graphic Arts I	_____	_____
ADA283	Digital Graphic Arts II	_____	_____
ADA289	Computer Illustration	_____	_____
<i>Administration of Justice Studies</i>			
AJS205	Effective Communication and Report Writing in Criminal Justice	_____	_____
<i>Architecture</i>			
ARC243	Architectural CAD III: Site Plans and Sections	_____	_____
ARC244	Architectural CAD IV: Structural Systems	_____	_____
ARC245	Architectural CAD V: Mechanical and Electrical Systems	_____	_____
<i>Art</i>			
ART100	Introduction to Digital Arts	_____	_____
ART169	2D Media Design	_____	_____

ART170	3D Computer Design	_____
ART173	Computer Art	_____
ART175	Electronic Publishing Design I	_____
ART177	Digital Photographic Imaging I	_____
ART179	Electronic Presentation Design	_____
Any 180++ course		_____
ART183	Digital Graphic Arts I	_____
ART283	Digital Graphic Arts II	_____
ART289	Computer Illustration	_____
<i>Biology</i>		
BIO283	Bioinformatics and Scientific Computing ¹	_____
<i>Business-Personal Computers</i>		
Any BPC Course(s), including:		_____
BPC110	Computer Usage and Applications ¹	_____
<i>Computer Information Systems</i>		
Any CIS Course(s), including: ²		_____
CIS105	Survey of Computer Information Systems ¹	_____
CIS162AB	C++: Level I ¹	_____
CIS162AD	C#: Level I ¹	_____
CIS163AA	Java Programming: Level I ¹	_____
<i>Computer Science</i>		
Any CSC Course(s), including: ³		_____
CSC100AA	Introduction to Computer Science (C++) ¹	_____
CSC100AB	Introduction to Computer Science (C++) ¹	_____
CSC110	Introduction to Computer Science (Java) ¹	_____
CSC110AA	Introduction to Computer Science (Java) ¹	_____
CSC110AB	Introduction to Computer Science (Java) ¹	_____

CSC120	Digital Design Fundamentals ¹		CTR102	Court Reporting: Machine Shorthand Theory Block II	
CSC150	Programming in C/C++ ¹		<i>Drafting Technology</i>		
CSC150AA	Programming In C/C++ ¹		DFT105AA	Computer Aided Drafting I: AutoCAD ^{1,4}	
CSC180	Computer Literacy ¹		DFT254AA	Computer Aided Drafting II: AutoCAD	
CSC180AA	Computer Literacy ¹		<i>Early Childhood Education</i>		
CSC180AB	Computer Literacy ¹		ECH238	Computers in Early Childhood	
CSC181	Applied Problem Solving With Visual Basic ¹		<i>Education</i>		
CSC181AA	Applied Problem Solving With Visual Basic ¹		EDU115	Digital Literacy for Teaching and Learning in Education	
CSC181AB	Applied Problem Solving With Visual Basic ¹		<i>Early Education</i>		
CSC182	Principles Of Programming With C#.NET ¹		EED115	Digital Literacy for Teaching and Learning in Education	
CSC182AA	Principles Of Programming With C#.NET ¹		<i>Electrical Engineering</i>		
CSC205	Object Oriented Programming and Data Structures ¹		EEE120	Digital Design Fundamentals ¹	
CSC205AA	Object Oriented Programming and Data Structures ¹		<i>Electronic</i>		
CSC205AB	Object Oriented Programming and Data Structures ¹		ELE131	Digital Logic and Circuits	
CSC205AC	Object Oriented Programming and Data Structures ¹		ELE181	Computer Programming for Technology	
CSC205AD	Object Oriented Programming and Data Structures ¹		ELE241	Microprocessor Concepts	
CSC283	Bioinformatics and Scientific Computing ¹		ELE243	Microprocessor Applications	
<i>Court Reporting</i>			ELE245	Advanced Microprocessors and Systems	
CTR101	Court Reporting: Machine Shorthand Theory Block I		<i>Electronic Technology</i>		
			ELT131	Digital and Logic Circuits	
			ELT243	Microprocessor Applications	
			<i>English</i>		
			ENG100AE	Composition Skills	
			<i>Food & Nutrition</i>		
			FON100	Introductory Nutrition	
			<i>General Business</i>		
			GBS221	Business Statistics ¹	
			<i>Geographic Information Science</i>		

GIS205	Geographic Information Technologies ¹	_____
GIS211	Geographic Information Science I ¹	_____
<i>Hotel Restaurant Management</i>		
HRM126	Food Service Cost Systems	_____
<i>Journalism</i>		
JRN133	Development of Small Publications	_____
<i>Paralegal Studies</i>		
LAS229	Litigation Technologies	_____
<i>Mathematics</i>		
MAT206	Elements of Statistics ¹	_____
<i>Music Theory/Composition</i>		
MTC180	Computer Literacy for Musicians ¹	_____
MTC191	Electronic Music I	_____
<i>Networking Technology</i>		
NET181	Visual Basic for Technology	_____
<i>Office Automation Systems</i>		
OAS111AA	Computer Keyboarding I	_____
<i>Psychology</i>		
PSY230	Introduction to Statistics ¹	_____
<i>Social Work</i>		
SWU225	Statistics for Social Research/ Justice and Government ¹	_____

¹ Course meets Arizona General Education Curriculum AGEC requirements.

² Except CIS159 Visual Basic Programming I, CIS162AC Visual C++: Level I, CIS217AM Advanced Microsoft Access: Database Management, CIS259 Visual Basic Programming II

³ Except CSC200 Principles of Computer Science (Java), CSC200AA Principles of Computer Science (Java), CSC200AB Principles of Computer Science (Java), CSC210 Data Structures And Algorithms (Java), CSC210AA Data Structures and Algorithms (Java), CSC210AB Data Structures and Algorithms (Java)

⁴ Must be taken with CSC100AA Introduction to Computer Science (C+) or CSC100AB Introduction to Computer Science (C++) to meet AGEC value

AGS General Education Distribution Areas

(28-29 credits- grade of "D" or better)

Humanities, Arts and Design (9 Credits)

Students are encouraged to choose courses from more than one discipline.

Code	Title	Credits	Semester
Distribution Area - Humanities, Arts and Design			
Select nine credits from the following:		9	_____
<i>Arabic Humanities</i>			
AHU245	Arabic Culture and Islam ¹	_____	_____
<i>American Indian Studies</i>			
AIS213	American Indian Religions ¹	_____	_____
<i>Administration of Justice Studies</i>			
AJS123	Ethics and the Administration of Justice ¹	_____	_____
<i>Art Humanities</i>			
Any Art Humanities Course(s), including:		_____	_____
ARH100	Introduction to Art ¹	_____	_____
ARH101	Prehistoric Through Gothic Art ¹	_____	_____
ARH102	Renaissance Through Contemporary Art ¹	_____	_____
ARH109	History of American Art	_____	_____
ARH110	History of Graphic Design	_____	_____
ARH112	History of Modern Art	_____	_____
ARH115	History of Photography ¹	_____	_____
ARH118	Introduction to Chinese Art ¹	_____	_____
ARH145	History of American Indian Art ¹	_____	_____
ARH201	Art of Asia ¹	_____	_____
ARH203	Art of Ancient Egypt ¹	_____	_____
ARH204	Roman Art and Architecture ¹	_____	_____
ARH217	Mexican Art History ¹	_____	_____
ARH216	Pre-Columbian Art History	_____	_____
ARH240	Art and Architecture of the Islamic World to 1800	_____	_____

ARH250	Visual Language and Interpretation	_____	ENG200	Reading and Writing About Literature ¹	_____
<i>ART</i>			_____		
ART131	Photography I	_____	ENG213	Introduction to the Study of Language ¹	_____
<i>Anthropology</i>			_____		
ASB211	Women in Other Cultures ¹	_____	ENG218	Writing about Literature ¹	_____
ASB214	Magic, Witchcraft and Healing: An Introduction to Comparative Religion ¹	_____	<i>English Humanities</i>		
ASB220	Anthropology Goes to the Movies ¹	_____	Any ENH Course(s), including: ²		
ASB222	Buried Cities and Lost Tribes: Old World ¹	_____	ENH110	Introduction to Literature ¹	_____
ASB223	Buried Cities and Lost Tribes: New World ¹	_____	ENH111	Literature and the American Experience	_____
ASB253	Death and Dying Across Cultures ¹	_____	ENH112	Chicano Literature ¹	_____
<i>Chicana and Chicano Studies</i>			ENH113	Writers/Directors and Current Issues ¹	_____
CCS101	Chicana and Chicano Studies ¹	_____	ENH114	African-American Literature ¹	_____
<i>Communication</i>			ENH117	Rap Literature: The Oral Tradition	_____
COM241	Oral Interpretation of Literature ¹	_____	ENH130	Mystery Fiction from the Nineteenth Century to the Present	_____
<i>Construction</i>			ENH140AA	Sports in Literature and Film ¹	_____
CON101	Construction and Culture (formerly CNS101) ¹	_____	ENH190	Introduction to US Ethnic Literature ¹	_____
<i>Dance Humanities</i>			ENH201	World Literature Through the Renaissance ¹	_____
DAH100	Introduction to Dance ¹	_____	ENH202	World Literature After the Renaissance ¹	_____
DAH201	World Dance Studies ¹	_____	ENH204	Introduction to Contemporary Literature ¹	_____
DAH250	Dance in Popular Culture ¹	_____	ENH206	Nature and Environmental Literature ¹	_____
DAH255	Hip Hop: Arts, Aesthetic and Culture ¹	_____	ENH214	Poetry Study ¹	_____
<i>Education</i>			ENH221	Survey of English Literature Before 1800 ¹	_____
EDU230	Cultural Diversity In Education (effective Spring '22) ¹	_____	ENH222	Survey Of English Literature After 1800 ¹	_____
EDU291	Children's Literature ¹	_____	ENH230	Introduction to Shakespeare ¹	_____
EDU292	The Art of Storytelling ¹	_____			
EDU294	Multicultural Folktales ¹	_____			
<i>English</i>					

ENH231	Introduction to Shakespeare: The Early Plays ¹	_____	ENH277AJ	Love and Passion: Romance Narrative	_____
ENH232	Introduction to Shakespeare: The Late Plays ¹	_____	ENH277AK	The Wild Frontier: Western Narrative	_____
ENH235	Survey Of Gothic Literature ¹	_____	ENH280	Topics in American Literature ¹	_____
ENH241	American Literature Before 1860 ¹	_____	ENH284	19th Century Women Writers ¹	_____
ENH242	American Literature After 1860 ¹	_____	ENH285	Contemporary Women Writers ¹	_____
ENH245	J.R.R. Tolkien and C.S. Lewis: Battling Modernism ¹	_____	ENH291	Children's Literature ¹	_____
ENH251	Mythology ¹	_____	ENH294	Multicultural Folktales ¹	_____
ENH253	Contemporary Global Literature and Film	_____	ENH295	Banned Books and Censorship ¹	_____
ENH254	Literature and Film ¹	_____	<i>French</i>		_____
ENH255	Contemporary U.S. Literature and Film ¹	_____	FRE265	Advanced French I ¹	_____
ENH256	Shakespeare On Film ¹	_____	<i>Game Studies</i>		_____
ENH259	American Indian Literature ¹	_____	GST202	Games, Culture and Aesthetics	_____
ENH260	Literature of the Southwest ¹	_____	<i>Health Care Related</i>		_____
ENH275	Modern Fiction ¹	_____	HCR210	Clinical Health Care Ethics ¹	_____
ENH277	Narrative Genres	_____	<i>History</i>		_____
ENH277AA	Dark Futures: Dystopian Narrative	_____	HIS101	History of Western Civilization Middle Ages to 1789 ¹	_____
ENH277AB	Whodunnits: Mystery Narrative	_____	HIS102	History of Western Civilization 1789 to Present ¹	_____
ENH277AC	Happily Ever: Children's Narrative	_____	HIS103	United States History to 1865 ¹	_____
ENH277AD	Stuff Blows Up: Action Narrative	_____	HIS108	United States History 1945 to the Present ¹	_____
ENH277AE	Tour of Duty: War Narrative	_____	HIS110	World History to 1500 ¹	_____
ENH277AF	Heroic Quests: Fantasy Narrative	_____	HIS111	World History 1500 to the Present ¹	_____
ENH277AG	Out There: Science Fiction Narrative	_____	HIS113	History of Eastern Civilizations to 1850 ¹	_____
ENH277AH	Facing Fear: Horror Narrative	_____	HIS114	History of Eastern Civilizations 1850 to Present ¹	_____
ENH277AI	Make 'em Laugh: Comedy Narrative	_____			

HIS203	African-American History to 1865 ¹	_____	HUM215	Film Comedy ¹	_____
HIS212	History of Religion ¹	_____	HUM216	The Films and Career of Alfred Hitchcock ¹	_____
HIS251	History of England to 1700 ¹	_____	HUM220	History and Film ¹	_____
HIS252	History of England 1700 to Present ¹	_____	HUM235	Disability Studies ¹	_____
<i>Honors</i>		_____	HUM245	Introduction to Holocaust Studies ¹	_____
HON190	The Honors Experience ¹	_____	HUM250	Ideas and Values in the Humanities: Early Civilizations to the Renaissance ¹	_____
<i>Humanities</i>		_____	HUM251	Ideas and Values in the Humanities: Renaissance to the Contemporary World ¹	_____
Any HUM course(s), including: ³		_____	HUM260	Intercultural Perspectives ¹	_____
HUM100	Great Ideas Symposium	_____	HUM261	Asian Ideas and Values ¹	_____
HUM101	General Humanities ¹	_____	HUM292	The Art of Storytelling ¹	_____
HUM107	Humanities Through the Arts ¹	_____	HUM295	Topics in the Humanities	_____
HUM108	Contemporary Humanities ¹	_____	<i>Interior Design</i>		_____
HUM190AA	Honors Forum ¹	_____	INT115	Historical Architecture and Furniture ¹	_____
HUM190AB	Honors Forum ¹	_____	INT120	Modern Architecture and Furniture ¹	_____
HUM190AC	Honors Forum ¹	_____	<i>Latin</i>		_____
HUM190AD	Honors Forum ¹	_____	LAT201	Intermediate Latin I ¹	_____
HUM190AE	Honors Forum ¹	_____	LAT202	Intermediate Latin II ¹	_____
HUM190AF	Honors Forum ¹	_____	<i>Music: History/Literature</i>		_____
HUM190AG	Honors Forum ¹	_____	MHL140	Survey of Music History ¹	_____
HUM190AH	Honors Forum ¹	_____	MHL143	Music in World Cultures ¹	_____
HUM190AI	Honors Forum ¹	_____	MHL145	American Jazz and Popular Music ¹	_____
HUM201	Humanities: Universal Themes ¹	_____	MHL146	Survey of Broadway Musicals ¹	_____
HUM202	Humanities: Universal Themes ¹	_____	MHL153	Rock Music and Culture ¹	_____
HUM205	Introduction to Cinema ¹	_____			
HUM206	Introduction to Television Arts ¹	_____			
HUM209	Women and Films ¹	_____			
HUM210	Contemporary Cinema ¹	_____			
HUM211AA	Foreign Films: Classics ¹	_____			
HUM211AE	Foreign Films: Italian	_____			
HUM212	Documentary Film	_____			
HUM213	Hispanic Film ¹	_____			
HUM214	African-Americans in Film ¹	_____			

MHL155	Survey of American Music ¹	_____
MHL194	Music and Culture ¹	_____
MHL204	Hip-Hop Music and Culture ¹	_____
MHL241	Music History and Literature to 1750 ¹	_____
MHL242	Music History and Literature 1750 to Present ¹	_____
MHL295	Topics in Music ¹	_____
<i>Philosophy</i>		
Any PHI Course(s), including:		
PHI101	Introduction to Philosophy ¹	_____
PHI103	Introduction to Logic ¹	_____
PHI104	World Philosophy ¹	_____
PHI105	Introduction to Ethics ¹	_____
PHI201	History of Ancient Philosophy ¹	_____
PHI212	Contemporary Moral Issues ¹	_____
PHI213	Medical and Bio-Ethics ¹	_____
PHI214	Business Ethics	_____
PHI215	Legal Ethics	_____
PHI216	Environmental Ethics ¹	_____
PHI218	Philosophy of Sexuality ¹	_____
PHI224	Political Philosophy ¹	_____
PHI233AA	Metaphysics: An Introduction ¹	_____
PHI233AB	Theory of Knowledge ¹	_____
PHI233AC	Philosophical Psychology	_____
PHI244	Philosophy of Religion ¹	_____
PHI245	Introduction to Eastern Philosophy ¹	_____
PHI250	Ethics in Higher Education	_____
PHI251	Philosophy of Sport ¹	_____
PHI282AC	Service Learning Experience in Philosophy	_____

Religious Studies

Any REL Course(s)		_____
REL100	World Religions ¹	_____
REL101	Introduction to Religion ¹	_____
REL151	Religion in the Hispanic World ¹	_____
REL200	Religion and Film ¹	_____
REL202	Classics of Asian Religions ¹	_____
REL203	American Indian Religions ¹	_____
REL205	Religion and the Modern World ¹	_____
REL206	Religion in America ¹	_____
REL207	Ritual, Symbol, and Myth ¹	_____
REL210	Introduction to Judaism ¹	_____
REL211	Introduction to the Old Testament (Hebrew Bible)	_____
REL212	Introduction to Islam ¹	_____
REL213	Introduction to the Qur'an	_____
REL214	Introduction to Mormonism (The Church of Jesus Christ of Latter-day Saints)	_____
REL218	Religion and Culture	_____
REL223	Spiritual But Not Religious	_____
REL225	African-American Religions ¹	_____
REL230	Religions of Indigenous Peoples	_____
REL240	Religion and Science ¹	_____
REL244	Philosophy of Religion ¹	_____
REL245	Eco Religion	_____
REL248	Religion, Peace and Violence	_____
REL250	Religion in Ireland: Neolithic to Early Medieval ¹	_____

REL251	History of Religion in Ireland: Medieval to Modern ¹		SSH111	Sustainable Cities ¹	
REL271	Introduction to the New Testament ¹		<i>Storytelling</i>		
REL277	Mysticism East and West		STO292	The Art of Storytelling ¹	
REL292	Goddess Religions		STO294	Multicultural Folktales ¹	
REL294	Religion in Community Service		<i>Social Work</i>		
REL295	Capstone: The Story of Belief		SWU183	Introductory Ethics: A Social Service Perspective ¹	
REL282AA	Service Learning Experience in Religious Studies		<i>Textiles and Clothing</i>		
REL282AB	Service Learning Experience in Religious Studies		TEC105	Cultural Aspects of Clothing ¹	
REL282AC	Service Learning Experience in Religious Studies		<i>Theater</i>		
REL290	Women and World Religions ¹		THE111	Introduction to Theatre ¹	
REL291	Religion and Sexuality ¹		THE220	Modern Drama ¹	
<i>Studies in Language & Culture</i>			<i>Theatre and Film</i>		
SLC201	Introduction to Linguistics ¹		THF205	Introduction to Cinema ¹	
SLC202	Introduction to Literary and Cultural Theory ¹		THF206	Introduction to Television Arts ¹	
<i>Spanish</i>			THF210	Contemporary Cinema ¹	
SPA241	Spanish and Spanish-American Film I ¹		<i>Theater/Performance/Production</i>		
SPA242	Spanish and Spanish-American Film II ¹		THP217	Introduction to Design Scenography ¹	
SPA265	Advanced Spanish I ¹		THP241	Oral Interpretation of Literature ¹	
SPA266	Advanced Spanish II ¹		<i>Women's Studies</i>		
<i>Spanish Humanities</i>			WST209	Women and Films ¹	
SPH241	Spanish and Latin American Film in Translation ¹		WST284	19th Century Women Writers ¹	
SPH245	Hispanic Heritage in the Southwest ¹		WST285	Contemporary Women Writers ¹	
<i>Sustainability/Social Sciences and Humanities</i>			WST290	Women and World Religions ¹	

¹ Course meets Arizona General Education Curriculum AGEC requirements.

² Except ENH250 Classical Backgrounds in Literature

³ Except HUM120 Cultural Viewpoints in the Arts, HUM225 Introduction to Popular Culture

Social-Behavioral Sciences (6-9 Credits)

Students are encouraged to choose courses from more than one discipline. Social-Behavioral Sciences requirements may be met with 6 credits only if COM100 Introduction to Human Communication, COM110 Interpersonal Communication, or COM230 Small Group Communication is shared between Core and Distribution (see Academic Policies section). The credits are only counted once, but may be applied meet Oral Communication and Social-Behavioral Science requirements.

Code	Title	Credits	Semester			
Distribution Area - Social-Behavioral Sciences						
Select six to nine credits from the following:		6-9				
<i>African American Studies</i>						
AFR202	Ethnic Relations in the United States ¹			ASB223	Buried Cities and Lost Tribes: New World ¹	
AFR203	African-American History: The Slavery Experience ¹			ASB226	Human Impacts on Ancient Environments ¹	
AFR204	African-American History: Reconstruction to the Present ¹			ASB230	Principles of Archaeology ¹	
<i>American Indian Studies</i>						
AIS101	Survey of American Indian Issues ¹			ASB235	Southwest Archaeology ¹	
AIS140	American Indian History ¹			ASB252	Sports and Culture ¹	
AIS141	Sovereign Indian Nations ¹			<i>Anthropology</i>		
AIS160	American Indian Law			ASM104	Bones, Stones, and Human Evolution ¹	
<i>Administration of Justice Studies</i>						
AJS101	Introduction to Criminal Justice ¹			ASM275	Forensic Anthropology ¹	
AJS119	Computer Applications in Justice Studies			<i>Behavioral Health Services Technology</i>		
AJS200	Current Issues In Criminal Justice ¹			BHS150	Introduction to Behavioral Health and Social Services ¹	
AJS225	Criminology ¹			BHS210	Addictions, Substance Use Disorders, and Relapse Prevention ¹	
AJS258	Victimology and Crisis Management			<i>Ethnic Relations</i>		
AJS270	Community Relations ¹			CCS202	Ethnic Relations in the United States ¹	
<i>Anthropology</i>						
ASB100	Introduction to Global Health ¹			<i>Child/Family Studies</i>		
ASB102	Introduction to Cultural Anthropology ¹			CFS112	Personal Growth and Family Relations ¹	
ASB202	Ethnic Relations in the United States ¹			CFS157	Marriage and Family Life ¹	
ASB211	Women in Other Cultures ¹			CFS159	The Modern Family ¹	
ASB222	Buried Cities and Lost Tribes: Old World ¹			CFS176	Child Development ¹	
				CFS205	Human Development ¹	
				CFS235	Developing Child: Theory into Practice, Prenatal to Age Eight ¹	
				CFS259	Sexuality over the Life Span ¹	
				<i>Communication</i>		
				Courses below meet Arizona General Education Curriculum AGECE requirements.		

COM100	Introduction to Human Communication	ECN250	World Economic Systems ¹
COM100AA & COM100AB & COM100AC	Introduction to Human Communication Part I and Introduction to Human Communication Part II and Introduction to Human Communication Part III	<i>Education</i>	
COM110	Interpersonal Communication ¹	EDU221	Introduction to Education ¹
COM110AA & COM110AB & COM110AC	Interpersonal Communication Part I and Interpersonal Communication Part II and Interpersonal Communication Part III	EDU222	Introduction to the Exceptional Learner ¹
COM163	Intercultural Communication in Everyday Life	<i>Early Education</i>	
COM230	Small Group Communication	EED200	Foundations of Early Childhood Education ¹
COM250	Introduction to Organizational Communication	EED205	The Developing Child: Prenatal to Age Eight ¹
COM263	Elements of Intercultural Communication	EED222	Introduction to the Exceptional Young Child: Birth to Age Eight ¹
<i>Counseling</i>		<i>Emergency Medical Technology</i>	
CPD180	Human Resilience: Cognitive, Emotional, and Behavioral Applications ¹	EMT258	Victimology and Crisis Management ¹
<i>Early Childhood Education</i>		<i>English</i>	
ECH176	Child Development ¹	ENG213	Introduction to the Study of Language ¹
<i>Economics</i>		<i>Forensic Science</i>	
ECN160	Economic History of the United States ¹	FOR275	Forensic Anthropology ¹
ECN211	Macroeconomic Principles ¹	<i>Fire Science Technology</i>	
ECN212	Microeconomic Principles ¹	FSC258	Victimology and Crisis Management ¹
ECN213	The World Economy ¹	<i>Cultural Geography</i>	
		GCU102	Introduction to Human Geography ¹
		GCU113	United States and Arizona Social Studies ¹
		GCU121	World Geography I: Eastern Hemisphere ¹
		GCU122	World Geography II: Western Hemisphere ¹
		GCU141	Introduction to Economic Geography ¹
		GCU221	Arizona Geography ¹
		<i>Health Science</i>	
		HES100	Healthful Living ¹
		<i>History</i>	
		Any HIS Course(s), including ²	

HIS100	History of Western Civilization to Middle Ages ¹		HIS240	History of Islamic Civilization from the 6th Century to 1800	
HIS101	History of Western Civilization Middle Ages to 1789 ¹		HIS241	Latin American Civilization in the Colonial Period ¹	
HIS102	History of Western Civilization 1789 to Present ¹		HIS242	Latin American Civilization in the Post-Colonial Period ¹	
HIS103	United States History to 1865 ¹		HIS273	US Experience in Vietnam 1945 - 1975 ¹	
HIS104	United States History 1865 to Present ¹		HIS275	Russia: Kievan Rus to the New Cold War ¹	
HIS105	Arizona History ¹		HIS277	The Modern Middle East ¹	
HIS106	Southwest History ¹		<i>Honors</i>		
HIS108	United States History 1945 to the Present ¹		HON201	Leadership Development: Historical and Contemporary Perspectives ¹	
HIS109	Mexican-American History and Culture ¹		<i>Humanities</i>		
HIS113	History of Eastern Civilizations to 1850 ¹		HUM235	Disability Studies ¹	
HIS114	History of Eastern Civilizations 1850 to Present ¹		<i>International Business</i>		
HIS140	American Indian History ¹		IBS109	Cultural Dimension for International Trade ¹	
HIS145	History of Mexico ¹		<i>Research in Global Society</i>		
HIS173	United States Military History ¹		IFS201	Information in a Post-Truth World ¹	
HIS190	Environmental History ¹		IFS210	Information Without Borders: Research in a Global Society ¹	
HIS201	History of Women in America ¹		IFS213	Hacking and Open Source Culture ¹	
HIS203	African-American History to 1865 ¹		<i>Mass Communications</i>		
HIS204	African-American History 1865 to Present ¹		MCO120	Media and Society	
HIS209	The Chicano in Twentieth Century America ¹		<i>Management</i>		
			MGT229	Management and Leadership I ¹	
			MGT230	Management and Leadership II ¹	
			<i>Public Administration</i>		
			PAD200	Public Affairs Economics ¹	
			<i>Political Science</i>		
				Any POS course(s), including:	

POS100	Introduction to Political Science ¹		PSY132	Psychology and Culture ¹	
POS101	Current Issues ¹		PSY156	Understanding Death and Dying	
POS110	American National Government ¹		PSY157	African/Black Psychology ¹	
POS113	United States and Arizona Social Studies ¹		PSY215	Sports Psychology ¹	
POS114	World Social Studies ¹		PSY218	Health Psychology ¹	
POS115	Issues in American Politics ¹		PSY225	Psychology of Religion ¹	
POS120	World Politics ¹		PSY235	Psychology of Gender ¹	
POS125	Issues in World Politics ¹		PSY240	Developmental Psychology ¹	
POS130	State and Local Government ¹		PSY241	Understanding and Changing Behavior ¹	
POS140	Comparative Government ¹		PSY243	The Psychology of Developmental Disabilities ¹	
POS180	United Nations Studies		PSY250	Social Psychology ¹	
POS210	Political Ideologies ¹		PSY260	Psychology of Personality ¹	
POS221	Arizona Constitution		PSY262	Positive Psychology: The Science of Well-Being ¹	
POS222	U.S. Constitution		PSY266	Psychological Disorders ¹	
POS223	Civil Rights and Liberties ¹		PSY277	Psychology of Human Sexuality ¹	
POS281AB	Public Policy/Service Internship		PSY280	Industrial/Organizational Psychology ¹	
POS282AA	Volunteerism for Political Science: A Service Learning Experience		PSY292	Psychology of Altered States of Consciousness ¹	
POS282AB	Volunteerism for Political Science: A Service Learning Experience		<i>Recreation</i>		
POS282AC	Volunteerism for Political Science: A Service Learning Experience		REC120	Leisure and the Quality of Life ¹	
POS285	Political Issues and Public Policy ¹		<i>Society and Business</i>		
<i>Psychology</i>			SBU200	Society and Business ¹	
PSY101	Introduction to Psychology ¹		<i>Studies in Language & Culture</i>		
PSY123	Psychology of Parenting		SLC201	Introduction to Linguistics ¹	
			<i>Sociology</i>		
			Any SOC course(s), including: ³		
			SOC101	Introduction to Sociology ¹	
			SOC110	Drugs and Society ¹	

SOC130	Human Sexuality ¹	_____
SOC141	Sovereign Indian Nations ¹	_____
SOC157	Sociology of Families and Relationships ¹	_____
SOC180	Social Implications of Technology ¹	_____
SOC212	Gender and Society ¹	_____
SOC220	Sport and Society ¹	_____
SOC241	Race and Ethnic Relations ¹	_____
SOC251	Social Problems ¹	_____
SOC266	Sociology Through Film ¹	_____
SOC270	The Sociology of Health and Illness ¹	_____
<i>Sustainability/Social Sciences and Humanities</i>		
SSH111	Sustainable Cities ¹	_____
<i>Sustainability/Natural Sciences</i>		
SUS110	Sustainable World ¹	_____
<i>Social Work</i>		
SWU171	Introduction to Social Work ¹	_____
SWU182	A Social Services Perspective of Government ¹	_____
SWU250	Mindfulness for Stress Management ¹	_____
SWU258	Victimology and Crisis Management ¹	_____
SWU295	Effective Helping in a Diverse World ¹	_____
<i>Textiles and Clothing</i>		
TEC105	Cultural Aspects of Clothing ¹	_____
<i>Wellness Education</i>		
WED110	Principles of Physical Fitness and Wellness ¹	_____
<i>Women's Studies</i>		
WST100	Introduction to Women's and Gender Studies ¹	_____
WST161	American Women Since 1920 ¹	_____

Yaqui Indian History and Culture

YAQ100	Yaqui Indian History and Culture ¹	_____
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¹ Course meets Arizona General Education Curriculum AGEC requirements.

² Except HIS111 World History 1500 to the Present, HIS170 American Indian History of the Southwest, HIS251 History of England to 1700, HIS252 History of England 1700 to Present

³ Except SOC143 Sociology of African American Problems, SOC245 Social Deviance, SOC253 Social Class and Stratification, SOC265 Sociology of Aging

Natural Sciences (7-8 Credits)

Two lecture courses and one corresponding laboratory course are to be selected. The lecture and corresponding laboratory course(s) may carry separate credit. For appropriate course selection students should consult with an advisor.

Code	Title	Credits	Semester
Distribution Area - Natural Sciences			
Select seven to eight credits from the following:		7-8	_____
<i>Agricultural Science</i>			
AGS164	Plant Growth and Development ¹	_____	_____
AGS260	Soils ¹	_____	_____
<i>Anthropology</i>			
ASB231	Archaeological Field Methods ¹	_____	_____
<i>Anthropology</i>			
ASM104	Bones, Stones, and Human Evolution ¹	_____	_____
ASM265	Laboratory Methods in Archaeology ¹	_____	_____
ASM275	Forensic Anthropology ¹	_____	_____
<i>Astronomy</i>			
AST101	Survey of Astronomy ¹	_____	_____
AST106	Life in the Universe ¹	_____	_____
AST111	Introduction to Solar System Astronomy ¹	_____	_____
AST112	Introduction to Stars, Galaxies, and Cosmology ¹	_____	_____
<i>Biology</i>			
BIO100	Biology Concepts ¹	_____	_____
BIO101	Introduction to Human Genetics for Non-Majors ¹	_____	_____

BIO102	Cells to Systems: An Introduction to Biology for Non-Majors ¹	_____	BIO201XT	Human Anatomy and Physiology I ¹	_____
BIO105	Environmental Biology ¹	_____	BIO202	Human Anatomy and Physiology II ¹	_____
BIO107	Introduction to Biotechnology ¹	_____	BIO205	Microbiology ¹	_____
BIO108	Plants and Society ¹	_____	BIO241	Human Genetics ¹	_____
BIO109	Natural History of the Southwest ¹	_____	<i>Chemistry</i>		_____
BIO111	Microbes and Society ¹	_____	Courses below meet Arizona General Education Curriculum AGEC requirements.		_____
BIO145	Marine Biology ¹	_____	CHM107 & 107LL	Chemistry and Society and Chemistry and Society Laboratory	_____
BIO149AF	Field Biology: Natural History of the Grand Canyon	_____	CHM130 & 130LL	Fundamental Chemistry and Fundamental Chemistry Laboratory	_____
BIO149AH	Field Biology: Marine Biology in Mexico	_____	CHM130AA	Fundamental Chemistry with Lab	_____
BIO149AK	Field Biology: Ecological and Environmental Field Experience	_____	CHM150 & CHM151LL	General Chemistry I and General Chemistry I Laboratory	_____
BIO149AL	Field Biology: Ecological and Environmental Field Experience	_____	CHM150AA	General Chemistry I	_____
BIO149AM	Field Biology: Ecological and Environmental Field Experience	_____	CHM151 & 151LL	General Chemistry I and General Chemistry I Laboratory	_____
BIO149AN	Field Biology: Ecological and Environmental Field Experience	_____	CHM151AA	General Chemistry I	_____
BIO156	Introductory Biology for Allied Health ¹	_____	CHM152 & 152LL	General Chemistry II and General Chemistry II Laboratory	_____
BIO156XT	Introductory Biology for Allied Health ¹	_____	CHM152AA	General Chemistry II	_____
BIO160	Introduction to Human Anatomy and Physiology ¹	_____	CHM154 & 154LL	General Chemistry II with Qualitative Analysis and General Chemistry II with Qualitative Laboratory	_____
BIO181	General Biology (Majors) I ¹	_____			
BIO181XT	General Biology (Majors) I ¹	_____			
BIO182	General Biology (Majors) II ¹	_____			
BIO182XT	General Biology (Majors) II ¹	_____			
BIO201	Human Anatomy and Physiology I ¹	_____			

CHM230 & 230LL	Fundamental Organic Chemistry and Fundamental Organic Chemistry Laboratory	_____	GLG231AD	Special Topics in Geology	_____
			GLG280	Geology of Arizona Lecture	_____
			GLG281	Geology of Arizona Lab	_____
			GLG282AA	Volunteerism for Geology: A Service Learning Experience	_____
<i>Construction</i>			Courses below meet Arizona General Education Curriculum AGEC requirements.		
CON106	Foundations of Concrete (formerly CNS106) ¹	_____	GLG101 & GLG103	Introduction to Geology I - Physical Lecture and Introduction to Geology I - Physical Lab	_____
<i>Environmental Sciences</i>			GLG101IN	Introduction to Geology I - Physical	_____
ENV101	Introduction to Environmental Science ¹	_____	GLG102 & GLG104	Introduction to Geology II - Historical Lecture and Introduction to Geology II - Historical Lab	_____
<i>Food and Nutrition</i>			GLG102IN	Introduction to Geology II - Historical	_____
Courses below meet Arizona General Education Curriculum AGEC requirements. ¹			GLG105	Introduction to Planetary Science	_____
FON241 & 241LL	Principles of Human Nutrition and Principles of Human Nutrition Laboratory	_____	GLG106	Life in the Universe	_____
<i>Forensic Science</i>			GLG110 & GLG111	Geological Disasters and the Environment and Geological Disasters and the Environment Lab	_____
FOR105	Forensic Science: Physical Evidence ¹	_____	GLG110IN	Geological Disasters and the Environment	_____
FOR106	Forensic Science: Biological Evidence ¹	_____	<i>Physical Geography</i>		
FOR275	Forensic Anthropology ¹	_____	Courses below meet Arizona General Education Curriculum AGEC requirements.		
<i>Geology</i>			GPH111	Introduction to Physical Geography Lecture	_____
GLG121	Geology of the Grand Canyon	_____			
GLG140	Introduction to Oceanography	_____			
GLG229AB	Field Studies for Educators	_____			
GLG229AC	Field Studies for Educators	_____			
GLG230AA	Field Geology of the Southwest	_____			
GLG230AB	Field Geology of the Southwest	_____			
GLG230AC	Field Geology of the Southwest	_____			
GLG231AA	Special Topics in Geology	_____			
GLG231AB	Special Topics in Geology	_____			
GLG231AC	Special Topics in Geology	_____			

GPH112 & GPH113	Introduction to Physical Geography Lab and Introduction to Physical Geography	_____
GPH211	Landform Processes	_____
GPH212 & GPH214	Introduction to Meteorology I and Introduction to Meteorology Laboratory I	_____
GPH213 & GPH215	Climate and Weather and Climate and Weather Laboratory	_____
<i>Physical Science</i>		
PHS110	Fundamentals of Physical Science ¹	_____
PHS115	The Science of Musical Instruments ¹	_____
PHS120	Introduction to Physical Science: Astronomy, Meteorology, Geology and Oceanography ¹	_____
<i>Physics</i>		
PHY101	Introduction to Physics ¹	_____
PHY101AA	Introduction to Physics ¹	_____
PHY111	General Physics I ¹	_____
PHY111AA	General Physics I ¹	_____
PHY112	General Physics II ¹	_____
PHY115	University Physics I ¹	_____
PHY116	University Physics II ¹	_____
PHY121	University Physics I: Mechanics ¹	_____
PHY131	University Physics II: Electricity and Magnetism ¹	_____
<i>Psychology</i>		
PSY275	Biopsychology ¹	_____
PSY290AB	Research Methods ¹	_____

PSY290AC	Research Methods Laboratory ¹	_____
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¹ Course(s) meets Arizona General Education Curriculum AGEC requirements.

Literacy and Critical Inquiry (0-3 Credits)

Literacy requirements may be met with 0 credits only if CRE101 College Critical Reading and Critical Thinking or COM225 Public Speaking is shared between Core and Distribution (see Academic Policies section). The credits are only counted once, but may be applied to meet [Critical Reading and Literacy and Critical Inquiry] or [Oral Communication and Literacy and Critical Inquiry] requirements.

Code	Title	Credits	Semester
Distribution Area - Literacy and Critical Inquiry			
Select up to three credits from the following:		0-3	_____
<i>American Indian Studies</i>			
AIS203	Fundamentals of Economic Development for Indigenous Nations ¹	_____	_____
AIS213	American Indian Religions ¹	_____	_____
<i>Communication</i>			
COM222	Argumentation ¹	_____	_____
COM225	Public Speaking ¹	_____	_____
COM241	Oral Interpretation of Literature ¹	_____	_____
<i>Counseling and Personal Development</i>			
CPD160	Introduction to Multiculturalism ¹	_____	_____
<i>Critical Reading</i>			
CRE101	College Critical Reading and Critical Thinking ¹	_____	_____
CRE201	Critical Reading and Writing in a Global Society ¹	_____	_____
<i>Culinary Arts</i>			
CUL223	Food Service Management ¹	_____	_____
<i>Dance Humanities</i>			
DAH255	Hip Hop: Arts, Aesthetic and Culture ¹	_____	_____
<i>Education</i>			
EDU282AC	Service-Learning Experience in Education ¹	_____	_____
<i>English</i>			

ENG111	Technical and Professional Writing ¹		HUM251	Ideas and Values in the Humanities: Renaissance to the Contemporary World ¹	
ENG200	Reading and Writing About Literature ¹				
ENG215	Strategies of Academic Writing ¹				
ENG216	Persuasive Writing on Public Issues ¹				
ENG217	Personal and Exploratory Writing ¹				
ENG218	Writing about Literature ¹				
<i>English Humanities</i>			<i>Information Studies</i>		
ENH241	American Literature Before 1860 ¹		IFS201	Information in a Post-Truth World ¹	
ENH254	Literature and Film ¹				
ENH255	Contemporary U.S. Literature and Film ¹				
ENH277AG	Out There: Science Fiction Narrative ¹				
<i>Exercise Science</i>			<i>Journalism</i>		
EXS290	Introduction to Evidence-Based Practice ¹		JRN201	News Writing ¹	
<i>Food and Nutrition</i>			JRN210	News and Media Production	
FON225	Research in Complementary and Alternative Nutrition Therapies ¹		JRN234	Feature Writing ¹	
<i>General Business</i>			<i>Mass Communications</i>		
GBS233	Business Communication ¹		MCO220	Cultural Diversity and the Media ¹	
<i>Physical Geography</i>			<i>Music: History/Literature</i>		
GPH267	Extreme Weather and Climate ¹		MHL204	Hip-Hop Music and Culture ¹	
<i>Humanities</i>			<i>Philosophy</i>		
HUM225	Introduction to Popular Culture ¹		PHI103	Introduction to Logic ¹	
HUM235	Disability Studies ¹		PHI218	Philosophy of Sexuality ¹	
HUM250	Ideas and Values in the Humanities: Early Civilizations to the Renaissance ¹		PHI224	Political Philosophy ¹	
			PHI244	Philosophy of Religion ¹	
			<i>Political Science</i>		
			POS115	Issues in American Politics ¹	
			<i>Psychology</i>		
			PSY290AB	Research Methods ¹	
			PSY290AC	Research Methods Laboratory ¹	
			<i>Religious Studies</i>		
			REL203	American Indian Religions ¹	
			REL205	Religion and the Modern World ¹	
			REL207	Ritual, Symbol, and Myth ¹	
			REL244	Philosophy of Religion ¹	
			<i>Studies in Language & Culture</i>		
			SLC202	Introduction to Literary and Cultural Theory ¹	
			<i>Theatre</i>		
			THE220	Modern Drama ¹	

Theatre Performance/Production

THP241	Oral Interpretation of Literature ¹
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¹ Course meets Arizona General Education Curriculum AGECE requirements.

Elective Courses (15-22 Credits)

May select courses from prefixes already chosen for General Education Distribution requirements in order to develop depth in one or more subject areas.

Associate in Applied Science (AAS) Degree and General Education Requirements

Maricopa County Community College District (MCCCD) 2022-2023

Description

The Associate in Applied Science (AAS) degree requires at least 60 credits in its program of study. The exact number of credits for a specific degree is identified as part of the presentation of its requirements on the web or in the college catalog.

Purpose of the Degree

The Maricopa County Community College District Associate in Applied Science (AAS) degree is recommended for students who wish to gain a depth of technical expertise in a particular workforce-related area of study. The AAS degree options vary at the different MCCCD colleges and can be searched alphabetically (<https://curriculum.maricopa.edu/curriculum/degrees-certificates/associate-degrees/associate-of-applied-science-degrees-aas/>) or by field of interest (<https://www.maricopa.edu/degrees-certificates/>). Requirements for each degree can be found on the linked web pages and in the corresponding college(s)'s catalog.

Academic Policies That Govern the AAS Degree:

- Requires 60 or more credits numbered 100 or above and includes credits or the equivalent in the General Education Core areas and credits in the Distribution areas. AAS degree requirements follow with the use of a diagonal character (/) between course numbers to signify options. An asterisk (*) following the course number defines requirements with an effective begin term of spring;
- All courses must be completed with a grade of C or higher; any additional requirements such as grades of B or higher or minimum grade point average requirements are listed on individual degrees and certificates;
- The graduation policies within the general catalog must be satisfied (Administrative Regulation 2.3.9). First Year Experience required (FYE101 OR FYE103)
- Includes both courses and their modular equivalents, either the course or the modular equivalents will satisfy the Associate in Applied Science requirements.
- Requires completion of General Education courses as indicated in the General Education Requirements for the Associate in Applied Science degree from the Maricopa County Community College District, or completion of a curriculum as stated in the catalog;

- Accepts one of the courses that is cross-referenced with other courses.

Degree Requirements**General Education Core (12-15 Credits)¹**

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

Demonstrate college-level skills in the following areas:

Code	Title	Credits	Semester
First-Year Composition ¹			
ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____
or ENH111	Literature and the American Experience		_____
Oral Communication			
Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM100AA & COM100AB & COM100AC	Introduction to Human Communication Part I and Introduction to Human Communication Part II and Introduction to Human Communication Part III		_____
COM110	Interpersonal Communication		_____
COM110AA & COM110AB & COM110AC	Interpersonal Communication Part I and Interpersonal Communication Part II and Interpersonal Communication Part III		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____
Critical Reading			
Complete one of the following:		0-3	_____

CRE101	College Critical Reading and Critical Thinking	_____	MAT155 & MAT182	College Algebra/ Functions with Review and Plane Trigonometry	_____
Equivalent as indicated by assessment		_____			
Mathematics		_____			
Select one of the following:		3			
MAT112	Mathematical Concepts and Applications	_____	MAT156	College Algebra/ Functions with Review	_____
MAT114	College Algebra Prep	_____	MAT156 & MAT182	College Algebra/ Functions with Review and Plane Trigonometry	_____
MAT115	College Algebra Prep	_____	MAT172	Finite Mathematics	_____
MAT120	Intermediate Algebra	_____	MAT187	Precalculus	_____
MAT121	Intermediate Algebra	_____	MAT206	Elements of Statistics	_____
MAT122	Intermediate Algebra	_____	MAT212	Brief Calculus	_____
MAT126	Intermediate Algebra with Review	_____	MAT213	Brief Calculus	_____
MAT140	College Mathematics	_____	MAT217	Mathematical Analysis for Business	_____
MAT141	College Mathematics	_____	MAT218	Mathematical Analysis for Business	_____
MAT142	College Mathematics	_____	MAT220	Calculus with Analytic Geometry I	_____
MAT145	College Mathematics with Review	_____	MAT221	Calculus with Analytic Geometry I	_____
MAT146	College Mathematics with Review	_____	MAT225	Elementary Linear Algebra	_____
MAT150	College Algebra/ Functions	_____	MAT227	Discrete Mathematical Structures	_____
MAT150 & MAT182	College Algebra/ Functions and Plane Trigonometry	_____	MAT230	Calculus with Analytic Geometry II	_____
MAT151	College Algebra/ Functions	_____	MAT231	Calculus with Analytic Geometry II	_____
MAT151 & MAT182	College Algebra/ Functions and Plane Trigonometry	_____	MAT240	Calculus with Analytic Geometry III	_____
MAT152	College Algebra/ Functions	_____	MAT241	Calculus with Analytic Geometry III	_____
MAT152 & MAT182	College Algebra/ Functions and Plane Trigonometry	_____	MAT256	Investigating Quantity: Number, Operations and Numeration Systems	_____
MAT155	College Algebra/ Functions with Review	_____	MAT257	Investigating Geometry, Probability and Statistics	_____

MAT261	Differential Equations	_____
MAT276	Modern Differential Equations	_____
MAT277	Modern Differential Equations	_____
Equivalent course		_____
Satisfactory completion of a higher level mathematics course		_____

¹ FYC may be met with fewer than 6 credits if student has transfer credit from ASU, NAU or UAZ for a single course that meets FYC in full.

General Education Distribution Areas (9-10 Credits) Humanities, Arts and Design (2-3 Credits)

Code	Title	Credits	Semester
Distribution Area: Humanities, Arts and Design			
Select two to three credits from the following:		2-3	_____
<i>Arabic Humanities</i>			
AHU245	Arabic Culture and Islam	_____	_____
<i>American Indian Studies</i>			
ALS213	American Indian Religions	_____	_____
<i>Administration of Justice Studies</i>			
AJS123	Ethics and the Administration of Justice	_____	_____
<i>Art Humanities</i>			
Any Art Humanities Course(s)		_____	_____
<i>Art</i>			
ART131	Photography I	_____	_____
<i>Anthropology</i>			
ASB211	Women in Other Cultures	_____	_____
ASB214	Magic, Witchcraft and Healing: An Introduction to Comparative Religion	_____	_____
ASB220	Anthropology Goes to the Movies	_____	_____
ASB222	Buried Cities and Lost Tribes: Old World	_____	_____
ASB223	Buried Cities and Lost Tribes: New World	_____	_____
ASB253	Death and Dying Across Cultures	_____	_____
<i>Chicana and Chicano Studies</i>			

CCS101	Chicana and Chicano Studies	_____
<i>Communication</i>		
COM241	Oral Interpretation of Literature	_____
<i>Construction</i>		
CON101	Construction and Culture (formerly CNS101)	_____
<i>Dance Humanities</i>		
DAH100	Introduction to Dance	_____
DAH201	World Dance Studies	_____
DAH250	Dance in Popular Culture	_____
DAH255	Hip Hop: Arts, Aesthetic and Culture	_____
<i>Education</i>		
EDU230	Cultural Diversity In Education (Eff. Spring '22)	_____
EDU291	Children's Literature	_____
EDU292	The Art of Storytelling	_____
EDU294	Multicultural Folktales	_____
<i>English</i>		
ENG200	Reading and Writing About Literature	_____
ENG213	Introduction to the Study of Language	_____
ENG218	Writing about Literature	_____
<i>English Humanities</i>		
Any English Humanities Course(s)		_____
<i>French</i>		
FRE265	Advanced French I	_____
<i>Game Studies</i>		
GST202	Games, Culture and Aesthetics	_____
<i>Health Care Related</i>		
HCR210	Clinical Health Care Ethics	_____
<i>History</i>		

HIS101	History of Western Civilization Middle Ages to 1789	_____	MHL143	Music in World Cultures	_____
HIS102	History of Western Civilization 1789 to Present	_____	MHL145	American Jazz and Popular Music	_____
HIS103	United States History to 1865	_____	MHL146	Survey of Broadway Musicals	_____
HIS108	United States History 1945 to the Present	_____	MHL153	Rock Music and Culture	_____
HIS110	World History to 1500	_____	MHL155	Survey of American Music	_____
HIS111	World History 1500 to the Present	_____	MHL194	Music and Culture	_____
HIS113	History of Eastern Civilizations to 1850	_____	MHL204	Hip-Hop Music and Culture	_____
HIS114	History of Eastern Civilizations 1850 to Present	_____	MHL241	Music History and Literature to 1750	_____
HIS203	African-American History to 1865	_____	MHL242	Music History and Literature 1750 to Present	_____
HIS212	History of Religion	_____	MHL295	Topics in Music	_____
HIS251	History of England to 1700	_____	<i>Philosophy</i>		_____
HIS252	History of England 1700 to Present	_____	Any Philosophy Course(s)		_____
<i>Honors</i>		_____	<i>Religious Studies</i>		_____
HON190	The Honors Experience	_____	Any Religious Studies Course(s)		_____
<i>Humanities</i>		_____	<i>Studies in Language & Culture</i>		_____
Any Humanities Course(s) ¹		_____	SLC201	Introduction to Linguistics	_____
<i>Interior Design</i>		_____	SLC202	Introduction to Literary and Cultural Theory	_____
INT115	Historical Architecture and Furniture	_____	<i>Spanish</i>		_____
INT120	Modern Architecture and Furniture	_____	SPA241	Spanish and Spanish-American Film I	_____
<i>Latin</i>		_____	SPA242	Spanish and Spanish-American Film II	_____
LAT201	Intermediate Latin I	_____	SPA265	Advanced Spanish I	_____
LAT202	Intermediate Latin II	_____	SPA266	Advanced Spanish II	_____
<i>Music: History/Literature</i>		_____	<i>Spanish Humanities</i>		_____
MHL140	Survey of Music History	_____	SPH241	Spanish and Latin American Film in Translation	_____
			SPH245	Hispanic Heritage in the Southwest	_____
			<i>Sustainability/Social Sciences and Humanities</i>		_____
			SSH111	Sustainable Cities	_____
			<i>Storytelling</i>		_____

STO292	The Art of Storytelling	_____	AFR204	African-American History: Reconstruction to the Present	_____
STO294	Multicultural Folktales	_____			
<i>Social Work</i>			<i>American Indian Studies</i>		
SWU183	Introductory Ethics: A Social Service Perspective	_____	AIS101	Survey of American Indian Issues	_____
<i>Textiles and Clothing</i>			AIS140	American Indian History	_____
TEC105	Cultural Aspects of Clothing	_____	AIS141	Sovereign Indian Nations	_____
<i>Theatre</i>			AIS160	American Indian Law	_____
THE111	Introduction to Theatre	_____	<i>Administration of Justice Studies</i>		
THE220	Modern Drama	_____	AJS101	Introduction to Criminal Justice	_____
<i>Theatre and Film</i>			AJS200	Current Issues In Criminal Justice	_____
THF205	Introduction to Cinema	_____	AJS225	Criminology	_____
THF206	Introduction to Television Arts	_____	AJS258	Victimology and Crisis Management	_____
THF210	Contemporary Cinema	_____	AJS270	Community Relations	_____
<i>Theatre Performance/Production</i>			<i>Anthropology</i>		
THP217	Introduction to Design Scenography	_____	ASB100	Introduction to Global Health	_____
THP241	Oral Interpretation of Literature	_____	ASB102	Introduction to Cultural Anthropology	_____
<i>Women's Studies</i>			ASB202	Ethnic Relations in the United States	_____
WST209	Women and Films	_____	ASB211	Women in Other Cultures	_____
WST284	19th Century Women Writers	_____	ASB222	Buried Cities and Lost Tribes: Old World	_____
WST285	Contemporary Women Writers	_____	ASB223	Buried Cities and Lost Tribes: New World	_____
WST290	Women and World Religions	_____	ASB226	Human Impacts on Ancient Environments	_____

¹ Except HUM120 Cultural Viewpoints in the Arts, HUM225 Introduction to Popular Culture

Social-Behavioral Sciences (3 Credits)

Code	Title	Credits	Semester
Distribution Area: Social-Behavioral Sciences			
Select three credits from the following:		3	_____
<i>African American Studies</i>			
AFR202	Ethnic Relations in the United States	_____	
AFR203	African-American History: The Slavery Experience	_____	

<i>Anthropology</i>			
ASM104	Bones, Stones, and Human Evolution	_____	
ASM275	Forensic Anthropology	_____	

<i>Behavioral Health Services Technology</i>		COM110AA & COM110AB & COM110AC	Interpersonal Communication Part I and Interpersonal Communication Part II and Interpersonal Communication Part III
BHS150	Introduction to Behavioral Health and Social Services		
BHS210	Addictions, Substance Use Disorders, and Relapse Prevention		
<i>Chicana and Chicano Studies</i>		COM163	Intercultural Communication in Everyday Life
CCS202	Ethnic Relations in the United States	COM230	Small Group Communication
<i>Child/Family Studies</i>		COM250	Introduction to Organizational Communication
CFS112	Personal Growth and Family Relations	COM263	Elements of Intercultural Communication
CFS157	Marriage and Family Life	<i>Counseling and Personal Development</i>	
CFS159	The Modern Family	CPD180	Human Resilience: Cognitive, Emotional, and Behavioral Applications
CFS176	Child Development	<i>Early Childhood Education</i>	
CFS205	Human Development	ECH176	Child Development
CFS235	Developing Child: Theory into Practice, Prenatal to Age Eight	<i>Economics</i>	
CFS259	Sexuality over the Life Span	Any Economics Course(s)	
<i>Communications</i>		<i>Education</i>	
COM100	Introduction to Human Communication	EDU221	Introduction to Education
COM100AA & COM100AB & COM100AC	Introduction to Human Communication Part I and Introduction to Human Communication Part II and Introduction to Human Communication Part III	EDU222	Introduction to the Exceptional Learner
COM110	Interpersonal Communication	<i>Early Education</i>	
		EED200	Foundations of Early Childhood Education
		EED205	The Developing Child: Prenatal to Age Eight
		EED222	Introduction to the Exceptional Young Child: Birth to Age Eight
		<i>Emergency Medical Technology</i>	
		EMT258	Victimology and Crisis Management
		<i>English</i>	

ENG213	Introduction to the Study of Language	_____	MCO120	Media and Society	_____
<i>Forensic Science</i>			<i>Management</i>		
FOR275	Forensic Anthropology	_____	MGT229	Management and Leadership I	_____
<i>Fire Science</i>			<i>Management and Leadership II</i>		
FSC258	Victimology and Crisis Management	_____	<i>Public Administration</i>		
<i>Cultural Geography</i>			PAD200	Public Affairs Economics	_____
GCU102	Introduction to Human Geography	_____	<i>Political Science</i>		
GCU113	United States and Arizona Social Studies	_____	Any Political Science Course(s)		
GCU121	World Geography I: Eastern Hemisphere	_____	<i>Psychology</i>		
GCU122	World Geography II: Western Hemisphere	_____	PSY101	Introduction to Psychology	_____
GCU141	Introduction to Economic Geography	_____	PSY123	Psychology of Parenting	_____
GCU221	Arizona Geography	_____	PSY132	Psychology and Culture	_____
<i>Health Science</i>			PSY156	Understanding Death and Dying	_____
HES100	Healthful Living	_____	PSY157	African/Black Psychology	_____
<i>History</i>			PSY215	Sports Psychology	_____
Any History Course(s) ¹			PSY218	Health Psychology	_____
<i>Honors</i>			PSY225	Psychology of Religion	_____
HON201	Leadership Development: Historical and Contemporary Perspectives	_____	PSY235	Psychology of Gender	_____
<i>Humanities</i>			PSY240	Developmental Psychology	_____
HUM235	Disability Studies	_____	PSY241	Understanding and Changing Behavior	_____
<i>International Business</i>			PSY243	The Psychology of Developmental Disabilities	_____
IBS109	Cultural Dimension for International Trade	_____	PSY250	Social Psychology	_____
<i>Information Studies</i>			PSY260	Psychology of Personality	_____
IFS201	Information in a Post-Truth World	_____	PSY262	Positive Psychology: The Science of Well-Being	_____
IFS210	Information Without Borders: Research in a Global Society	_____	PSY266	Psychological Disorders	_____
IFS213	Hacking and Open Source Culture	_____	PSY277	Psychology of Human Sexuality	_____
<i>Mass Communications</i>			PSY280	Industrial/Organizational Psychology	_____
			PSY292	Psychology of Altered States of Consciousness	_____

<i>Recreation</i>		_____
REC120	Leisure and the Quality of Life	_____
<i>Society and Business</i>		_____
SBU200	Society and Business	_____
<i>Studies in Language & Culture</i>		_____
SLC201	Introduction to Linguistics	_____
<i>Sociology</i>		_____
Any Sociology Course(s) ²		_____
<i>Sustainability/Social Sciences and Humanities</i>		_____
SSH111	Sustainable Cities	_____
<i>Sustainability/Natural Sciences</i>		_____
SUS110	Sustainable World	_____
<i>Social Work</i>		_____
SWU171	Introduction to Social Work	_____
SWU182	A Social Services Perspective of Government	_____
SWU250	Mindfulness for Stress Management	_____
SWU258	Victimology and Crisis Management	_____
SWU295	Effective Helping in a Diverse World	_____
<i>Textiles and Clothing</i>		_____
TEC105	Cultural Aspects of Clothing	_____
<i>Wellness Education</i>		_____
WED110	Principles of Physical Fitness and Wellness	_____
<i>Women's Studies</i>		_____
WST100	Introduction to Women's and Gender Studies	_____
WST161	American Women Since 1920	_____
<i>Yaqui Indian History and Culture</i>		_____
YAQ100	Yaqui Indian History and Culture	_____

¹ Except HIS111 World History 1500 to the Present, HIS170 American Indian History of the Southwest, HIS251 History of England to 1700, HIS252 History of England 1700 to Present

² Except SOC143 Sociology of African American Problems, SOC245 Social Deviance, SOC253 Social Class and Stratification, SOC265 Sociology of Aging

Natural Sciences (4 Credits)

The lecture course(s) selected for Natural Sciences must include or be accompanied by the corresponding laboratory course. The lecture and corresponding laboratory course(s) may carry separate credit. Students should consult with an advisor for appropriate course selection.

Code	Title	Credits	Semester
Distribution Area: Natural Sciences			
Select four credits from the following:		4	_____
<i>Agricultural Science</i>			
AGS164	Plant Growth and Development	_____	_____
AGS260	Soils	_____	_____
<i>Anthropology</i>			
ASB231	Archaeological Field Methods	_____	_____
<i>Anthropology (Science/Math)</i>			
ASM104	Bones, Stones, and Human Evolution	_____	_____
ASM265	Laboratory Methods in Archaeology	_____	_____
ASM275	Forensic Anthropology	_____	_____
<i>Astronomy</i>			
AST101	Survey of Astronomy	_____	_____
AST106	Life in the Universe	_____	_____
AST111	Introduction to Solar System Astronomy	_____	_____
AST112	Introduction to Stars, Galaxies, and Cosmology	_____	_____
<i>Biology</i>			
BI0100	Biology Concepts	_____	_____
BI0101	Introduction to Human Genetics for Non-Majors	_____	_____
BI0102	Cells to Systems: An Introduction to Biology for Non-Majors	_____	_____
BI0105	Environmental Biology	_____	_____
BI0107	Introduction to Biotechnology	_____	_____
BI0108	Plants and Society	_____	_____

BIO109	Natural History of the Southwest		CHM151 & 151LL	General Chemistry I and General Chemistry I Laboratory	
BIO111	Microbes and Society				
BIO145	Marine Biology		CHM152AA	General Chemistry II	
BIO149AN	Field Biology: Ecological and Environmental Field Experience		CHM152 & 152LL	General Chemistry II and General Chemistry II Laboratory	
BIO156	Introductory Biology for Allied Health		CHM154 & 154LL	General Chemistry II with Qualitative Analysis and General Chemistry II with Qualitative Laboratory	
BIO156XT	Introductory Biology for Allied Health				
BIO160	Introduction to Human Anatomy and Physiology		CHM230 & 230LL	Fundamental Organic Chemistry and Fundamental Organic Chemistry Laboratory	
BIO181	General Biology (Majors) I				
BIO181XT	General Biology (Majors) I				
BIO182	General Biology (Majors) II				
BIO182XT	General Biology (Majors) II				
BIO201	Human Anatomy and Physiology I				
BIO201XT	Human Anatomy and Physiology I				
BIO202	Human Anatomy and Physiology II				
BIO205	Microbiology				
BIO241	Human Genetics				
<i>Chemistry</i>			<i>Construction</i>		
CHM107 & 107LL	Chemistry and Society and Chemistry and Society Laboratory		CON106	Foundations of Concrete (formerly CNS106)	
CHM130 & 130LL	Fundamental Chemistry and Fundamental Chemistry Laboratory		<i>Environmental Sciences</i>		
CHM130AA	Fundamental Chemistry with Lab		ENV101	Introduction to Environmental Science	
CHM150AA	General Chemistry I		<i>Food and Nutrition</i>		
CHM150 & CHM151LL	General Chemistry I and General Chemistry I Laboratory		FON241 & 241LL	Principles of Human Nutrition and Principles of Human Nutrition Laboratory	
CHM151AA	General Chemistry I		<i>Forensic Science</i>		
			FOR105	Forensic Science: Physical Evidence	
			FOR106	Forensic Science: Biological Evidence	
			FOR275	Forensic Anthropology	
			<i>Geology</i>		
			Any Geology Course(s)		
			<i>Physical Geography</i>		

GPH111 & GPH112	Introduction to Physical Geography Lecture and Introduction to Physical Geography Lab
GPH113	Introduction to Physical Geography
GPH211	Landform Processes
GPH212 & GPH214	Introduction to Meteorology I and Introduction to Meteorology Laboratory I
GPH213 & GPH215	Climate and Weather and Climate and Weather Laboratory
<i>Physical Science</i>	
PHS110	Fundamentals of Physical Science
PHS115	The Science of Musical Instruments
PHS120	Introduction to Physical Science: Astronomy, Meteorology, Geology and Oceanography
<i>Physics</i>	
PHY101	Introduction to Physics
PHY101AA	Introduction to Physics
PHY111	General Physics I
PHY111AA	General Physics I
PHY112	General Physics II
PHY115	University Physics I
PHY116	University Physics II
PHY121	University Physics I: Mechanics
PHY131	University Physics II: Electricity and Magnetism
<i>Psychology</i>	
PSY275	Biopsychology
PSY290AB	Research Methods

PSY290AC Research Methods Laboratory

Academic Certificate (AC)

Maricopa County Community College District (MCCCD) 2022-2023

Purpose of the Academic Certificate

The Maricopa County Community College District Academic Certificate (AC) is a defined and coherent program of study that is recommended for students who wish to gain additional expertise in a specific area of emphasis in an academic discipline. While this program of study can result in proficiency in the specified skills and competencies, as well as mastery of a body of knowledge, it is not designed to prepare someone for employment in a specific occupation. The coursework for an Academic Certificate may be from a variety of disciplines or it can be discipline specific. There is no required general studies component to an Academic Certificate; however, the program may include some courses that have specific general studies designations such as Humanities, Arts and Design [HU], Social-Behavioral Sciences [SB], Literacy and Critical Inquiry [L], or Cultural Awareness [C]. (See AGECEC matrix (<https://aztransmac2.asu.edu/cgi-bin/WebObjects/agec.woa/1/wa/agecMatrixReport/?inst=001075>) for current course values.)

Academic Policies that Govern the Academic Certificate

- Although the program of study for an Academic Certificate (AC) does not have a mandated minimum number of credit hours, most ACs require approximately 12-39 credit hours in courses numbered 100 and above;
- Requires a cumulative GPA of 2.0 or better in required courses for completion;
- Follows the graduation policies listed in the college's general catalog for the appropriate catalog year;
- Any course cross-referenced under another prefix(es) (for example ENH291 Children's Literature/EDU291 Children's Literature) covers identical content and its credits can only be counted once toward certificate requirements;
- Although ACs may include a subset of coursework required in particular transfer degrees, the intent of an AC is not to align with any specific university major. There is no presumption of block transfer to another college or university;
- May have admission criteria established by the college if and when appropriate;
- Generally offered at a limited number of colleges. For a listing of all ACs available in the district and their affiliated college(s) see the CCTA website (<https://curriculum.maricopa.edu/>).

Allied Health or Nursing Assumption of Risk/Release of Liability

Maricopa Community Colleges (MCCCD) Allied Health or Nursing Program (S-13)

Most of the allied health or nursing program pathways include a program of study in a clinical training environment that may contain exposures to risks inherent in patient-oriented educational experiences (such as but not limited to bodily injury or communicable and infectious diseases).

Students enrolling in clinical educational courses will be asked to sign a statement assuming all risks inherent in their coursework.

Use of Confidential Information

Students enrolled in allied health or nursing program pathways will have learning experiences in a health care setting where they will have access to confidential information. Prior to beginning any clinical studies, the students will be asked to sign an agreement to adhere to the requirements of those clinical sites and applicable law, including the Health Insurance Portability and Accountability Act of 1996 (HIPAA).

MCCCD Required Background Checks

Students enrolled in an MCCCD allied health or nursing program are required to complete and pass clinical learning experiences, working with children, elderly persons, and other vulnerable populations. MCCCD's major clinical agency partners now mandate that any college students assigned to them for clinical experiences submit to a comprehensive background clearance prior to entering such learning experiences. Because the clinical experience portion of the programs is critical to completing a program of study, MCCCD has instituted two specific background check requirements in order for a student to enroll in a program. First, the student must obtain, at his or her own cost, a Level I Fingerprint Clearance Card from the Arizona Department of Public Safety. Precluding offenses for a Level I card can be found in Arizona Revised Statute § 41-1758.07 (<https://www.azleg.gov/viewdocument/?docName=https://www.azleg.gov/ars/41/01758-07.htm>). Additionally, students must also obtain a "pass" status on a MCCCD supplemental background check from MCCCD's authorized background check contractor. The student must also pay for this background check. The supplemental check will be based on the most stringent standards of MCCCD's clinical experience partners.

The sole program for which the background check requirements are different is the Emergency Medical Technician program. For that program, students must have obtained a Level 1 Fingerprint Clearance Card from the Arizona Department of Public Safety. They are also required, at the time of their clinical assignments, to submit to, pay for and pass any additional background check requirements of the clinical agencies to which their EMT program places students.

Certain licensing boards may require a separate background check or clearance card upon application for licensure or certification.

The MCCCD supplemental background check review may include searches of the following databases and information but MCCCD reserves the right to change the search criteria and the program background check requirements at any time without notice:

- a. National Federal Health Care and Abuse Databases
- b. Social Security Verification
- c. Residency History
- d. Arizona Statewide Criminal Records
- e. Nationwide Criminal Databases
- f. Nationwide Sexual Offender Registry
- g. Homeland Security Search

Examples of background information that will result in a "fail" status on the supplemental background check include:

- a. Social Security number does not belong to the applicant
- b. Any inclusion on any registered sex offender database

- c. Any inclusion on any of the Federal exclusion lists or Homeland Security watch lists
- d. Any conviction of a felony no matter what age of the convictions
- e. Any warrant any state
- f. Any misdemeanor conviction for the following no matter how long ago:
 - A. Violent crimes
 - B. Sex crime of any kind including non consensual sexual crimes and sexual assault
 - C. Murder, attempted murder
 - D. Abduction
 - E. Assault
 - F. Robbery
 - G. Arson
 - H. Extortion
 - I. Burglary
 - J. Pandering
 - K. Any crime against minors, children, vulnerable adults including abuse, neglect, exploitation
 - L. Any abuse or neglect
 - M. Any fraud
 - N. Illegal drugs
 - O. Aggravated DUI
- g. Any misdemeanor controlled substance conviction in last 7 years
- h. Any other misdemeanor conviction within last 3 years

[Exceptions: Any misdemeanor traffic (DUI is NOT considered traffic).

The information that MCCCD uses for the "pass/fail" background check is subject to change at any time without notice.

MCCCD recommends that students carry proof of the background clearance at all times during any clinical agency learning experience.

Duty to Report Changes; Removal

Students have an obligation to immediately report to the director of their program any change in the information that they supplied on forms submitted to initiate background checks relating to the allied health or nursing program. That includes information provided to the Arizona Department of Public Safety and MCCCD's supplemental background check vendor, as well as that related to the background check required by a clinical agency. Failure to do so will result in removal from the program. Additionally, any change in background check status that would affect the student's clearance under either MCCCD's or a clinical agency's standards will result in removal from a program.

Additional Clinical Agency Background Check

Some clinical agencies require that students assigned to their sites submit to a criminal background check covering other offenses, as well as to a drug screening. Students are required to pay for the additional agency clinical background check. A clinical agency that requires this additional background check may refuse to place a student due to information the clinical agency obtains in its background check even though that student possess a valid Level I Fingerprint Clearance Card and has obtained a "pass" status on the MCCCD supplemental background check.

Some conditions that have resulted in students being denied placement at clinical agencies include pending criminal charges, outstanding

warrants, unfinished terms of a sentence (such as unpaid fines), pattern of repeated types of arrests/convictions, and failure to disclose all past arrests/convictions when asked to do so on any background check application.

Inability to Place

MCCCD has no obligation to make repeated attempts to place a student when the reason for MCCCD's inability to place the student is due to background check issues. Since clinical agency assignments are mandatory requirements for completion of a program, a student's inability to complete required clinical experience due to his or her background check issues will result in removal from the program.

Changes to Admission or Background Check Requirements

MCCCD may change its program admission requirements or background check requirements without notice at any time.

No Guarantee of Receipt of Licensure/Certificate

Many of the nursing and allied health programs prepare graduates for application for State or National certificates or licenses. In some professions, such licensure and certification is required prior to employment or practice in the profession. Graduation from a nursing and allied health program does not guarantee the receipt of a license or certificate to practice in the field of study.

Amended by Direct Chancellor Approval, June 1, 2017

Fields of Interest Matrix

The Maricopa County Community College Field of Interest Matrix identifies all programs currently available for offering within the ten (10) community colleges and skill centers of the district. The programs are grouped under Field of Interest as requested by the colleges. For specific information regarding individual programs, contact the college(s) listed as participating institutions.

College Key

Code	College
CG:	Chandler Gilbert Community College
PC:	Phoenix College
EM:	Estrella Mountain Community College
PV:	Paradise Valley Community College
GC:	Glendale Community College
RS:	Rio Salado College
GW	GateWay Community College
SC:	Scottsdale Community College
MC:	Mesa Community College
SM:	South Mountain Community College

Applied Technology

Field	College
Air Conditioning and Electrical Accessories	GW
Air Conditioning/Refrigeration/Facilities	GW
Aircraft Maintenance Technology	CG
Aircraft Maintenance Technology-Airframe	CG
Aircraft Maintenance Technology-Powerplant	CG

Airway Science Technology, Flight Emphasis	CG
Applied Electrical Technologies	RS
Architectural and Civil CAD Technology	GC
Architectural Technology	SC
Automated Industrial Technology	EM, MC
Automated Industrial Technology I	EM, MC
Automated Industrial Technology II	EM, MC
Automotive Automatic Transmission and Transaxle	GC, GW, MC
Automotive Brake Systems	GC, GW, MC
Automotive Chassis	GC, GW, MC
Automotive Drive Train	GC, GW, MC
Automotive Electrical, Heating, Ventilation and Air Conditioning Systems	GC, GW, MC
Automotive Electronic/Electrical Systems	GC, GW, MC
Automotive Engine Performance	GC, GW, MC
Automotive Engine Repair	GC, GW, MC
Automotive Engine Repair and Performance	GC, GW, MC
Automotive Heating, Ventilation and Air Conditioning Systems	GC, GW, MC
Automotive Maintenance and Light Repair	GC, GW, MC
Automotive Manual Drive Train and Axles	GC, GW, MC
Automotive Service	GC, GW, MC
Automotive Steering and Suspension	GC, GW, MC
Basic Automotive Maintenance	RS
Brakes, Alignment, Suspension and Steering	MC
Building Inspection	GW, MC
Cable and Wire Harness Assembly	MC
CAD Application	GC
CAD Fundamentals	GC
Carpenter Apprenticeship	GW
Caterpillar Technician Training	MC
Certified Flight Instructor Instrument Airplane Rating	CG
Clean Energy Management	PC
CNC Machine Operator	GW, MC
CNC Machine Operator (Day)	GW
CNC Machine Operator (Night)	GW
CNC Machining I	GW, MC
CNC Machining I (Day)	GW
CNC Machining I (Night)	GW
CNC Machining II	GW, MC
CNC Machinist (Day)	GW
CNC Machinist (Night)	GW
Collision Repair Technician (Day)	GW
Collision Repair Technician (Night)	GW
Computer Aided Drafting	MC
Construction Building Codes	MC
Construction Management	MC
Construction Safety OSHA 30	MC
Construction Technology	MC, SM
Construction Trades: Acoustics	GW
Construction Trades: Drywall	GW

Construction Trades - Mechanical Trades: Pipefitting	GW	HVAC Technician (Night)	GW
Construction Trades - Mechanical Trades: Plumbing	GW	Industrial Design Technology	GW
Construction Trades - Mechanical Trades: Sheet Metal	GW	Industrial Design Technology: Design Specialist	GW
Construction Trades: Carpentry	GW, MC, RS, SM	International Residential Code	MC
Construction Trades: Carpentry, Commercial and Residential	MC, RS, SM	J-STD Soldering Certification	MC
Construction Trades: Carpentry, Commercial and Residential (Day)	GW	Lineman Technology Level I	RS
Construction Trades: Construction Management	GW, MC	Lineman Technology Level II	RS
Construction Trades: Electrical	MC, RS, SM	Lineman Technology Level III	RS
Construction Trades: Electrical (Day)	GW	Lineman Technology Level IV	RS
Construction Trades: Electrical (Night)	GW	Maintenance Technician: Apartments	GW
Construction Trades: Electrical, Commercial and Residential	MC, RS, SM	Manufacturing Production Technology	MC
Construction Trades: Electrical, Commercial and Residential (Day)	GW	Mechanical Drafting	MC
Construction Trades: Electrical, Commercial and Residential (Night)	GW	Mechanical Systems Technology	EM
Construction Trades: Electricity	GW	Millwrighting	GW
Construction Trades: Heat and Frost Insulation	GW	Nanotechnology	RS
Construction Trades: Ironworking	GW	Nanotechnology and Manufacturing	RS
Construction Trades: Millwrighting	GW	Nuclear Power Technology	EM
Construction Trades: Painting and Drywalling	GW	Power Systems Technology	EM
Construction Trades: Plumbing	GW, MC, RS, SM	Quality Assurance	GW
Construction Trades: Plumbing, Commercial and Residential	GW, MC, RS, SM	Robotics Technology	EM, MC
Construction Trades: Pre-Apprenticeship	GW	Salt River Project Relay Apprentice	MC
Drafting and Design Technology	MC	Unmanned Aircraft Systems	CG
Electric Utility Technology	CG	Water and Wastewater Treatment	GW
Electrical Installer (Day)	GW	Welding	MC
Electrical Installer (Night)	GW	Welding: Combination (Day)	GW
Electrical Systems Technology	EM	Welding: Combination (Night)	GW
Electrical Technician (Day)	GW	Welding: Fundamentals	MC
Electrical Technician (Night)	GW	Welding: Fundamentals (Day)	GW
Electrical Technology	GW	Welding: Fundamentals (Night)	GW
Electrical Technology - Commercial Wiring	GW	Welding: Gas Metal / Flux Cored Arc Welding (GMAW)/(FCAW)	MC
Electrical Technology - Industrial Wiring	GW	Welding: Gas Tungsten Arc Welding (GTAW) Ferrous	MC
Electrical Technology: Residential Wiring	GW	Welding: Gas Tungsten Arc Welding (GTAW) Ferrous and Non-Ferrous (Day)	GW
Energy and Industrial Technology	EM	Welding: Gas Tungsten Arc Welding (GTAW) Ferrous and Non-Ferrous (Night)	GW
Engine Performance and Diagnosis	GW	Welding: Gas Tungsten Arc Welding (GTAW) Non-Ferrous	MC
Environmental Science and Water Resources Technologies	GW	Welding: Pipe and Plate (Day)	GW
Environmental Science Technology	GW	Welding: Pipe and Plate (Night)	GW
HVAC Commercial Installation and Service Technician	GW	Welding: Shielded Metal Arc Welding (SMAW) (Day)	GW
HVAC Residential Installation and Service Technician	GW	Welding: Shielded Metal Arc Welding (SMAW) (Night)	GW
HVAC Residential Installation and Service Technician (Day)	GW	Welding: Shielded Metal Arc Welding (SMAW) Pipe (Day)	MC
HVAC Residential Installation and Service Technician (Night)	GW	Welding: Shielded Metal Arc Welding (SMAW) Pipe (Night)	GW
		Welding: Shielded Metal Arc Welding (SMAW) Pipe Plate	MC

Welding: TIG (GTAW) (Day)	GW
Welding: TIG (GTAW) (Night)	GW

Behavioral Science and Human Services

Field	College
Addictions and Substance Use Disorders	RS
Addictions and Substance Use Disorders Level I	RS
Addictions and Substance Use Disorders Level II	RS
Administration of Justice	CG, EM, GC, MC, PC, PV, RS, SC, SM
Administration of Justice Studies	CG, EM, GC, MC, PC, PV, RS, SC, SM
Adolescent Studies	PC
Advanced Behavioral Health Sciences	GC, SM
Advanced Corrections and Detention	RS
Advanced Juvenile Corrections	RS
Associate in Arts, Emphasis in Counseling and Applied Psychological Science	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Criminal Justice	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Family Life Education	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Law and Policy	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Political Science	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Psychology	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Social Work	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Basic Behavioral Health Sciences	GC, SM
Basic Corrections	RS
Basic Detention	RS
Behavioral Sciences	GC, SM
Child and Family Organizations Management and Administration	GC, RS
Community Emergency Response Team (CERT): Level IPC Corrections	CG, EM, GC, MC, PC, PV, RS, SC, SM
Corrections and Detention	RS
Crime Scene Investigation	CG, GC, MC, PC, PV, SC, SM
Developmental Disabilities Specialist	GC
Driver Operator	GC, MC, PC, PV
Emergency Communications	RS
Emergency Communications and Deployment	PC
Emergency Management	GC, MC, PC, PV
Fingerprint Identification and Photography	CG, GC, MC, PC, PV, SC, SM
Fire Science	GC, MC, PC, PV
Fire Service Management	GC, MC, PC, PV
Firearms	RS
Firefighter Operations	GC, MC, PC, PV
Forensic Science	CG, GC, MC, PC, PV, SC, SM

Hazardous Materials Response	PC
Homeland Security	CG, GC, GW, MC, PC, PV, RS, SM
Human Services - Specialist: Customer Service	RS
Human Services - Unemployment Insurance: Customer Service	RS
Human Services-Assistance: Public Assistance Eligibility	RS
Juvenile Corrections	RS
Law Enforcement	CG, EM, GC, MC, PC, PV, RS, SC, SM
Law Enforcement Field Training	RS
Law Enforcement Investigation	GC, RS
Law Enforcement Training	CG, GC, RS
Law Enforcement Training Academy	CG, GC, RS
Leadership in Public Safety Organizations	CG, GC, MC, PC, RS
Legal Studies	CG, EM, GC, MC, PC, PV, RS, SM
Non-Sworn Fire Service Professional	GC, MC, PC, PV
Paralegal	RS
Paralegal Studies	PC
Professional Addictions Counseling	RS
Public Safety Leadership	RS
Public Safety Technology	RS
Search Warrant Preparation	RS
Stage Combat	PV
Substance Use Prevention and Interventions	RS
Terrorism Liaison Training: Level I	PC
Terrorism Liaison Training: Level II	PC
Victimology	CG, GC, MC, PC, PV, RS, SM
Workforce Development and Community Re-Entry	RS
Workforce Development: Foundations in Addictions and Substance Use Disorders	RS

Business, Entrepreneurialism, and Management

Field	College
Accounting	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Administrative Professional	CG, EM, GC, GW, MC, PC, PV, SM
Advocate Driven Healthcare: Customer Service	RS
Airline Operations	RS
Airline Operations: Reservations and Ticketing Services	RS
Apprentice Meat Cutter	GW
Associate in Arts, Emphasis in Journalism and New Media Studies	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Business, General Requirements (ABUS-GR)	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Business, Special Requirements (ABUS-SR)	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Automobile Insurance Claims: Customer Service	RS

Automobile Insurance: Customer Service	RS
Automobile Insurance: Policy Services	RS
Automobile Insurance: Sales	RS
Automobile Insurance: Sales Service	RS
Bank Account Management: Customer Service	RS
Banking and Finance	GW, PC
Beauty and Wellness	GW, MC
Broadband Telecommunications	RS
Broadband Telecommunications: Field Operations	RS
Business Administration Fastrack	CG, GC, MC, PC, SC
Business Technology: Customer Service	RS
Business Technology Specialist	GW
Cannabis Business Fundamentals	SC
Commercial Baking and Pastry	EM, PC, SC
Commercial Real Estate	GC, MC, RS, SC, SM
Court Reporting: Judicial	GW
Credit Counseling: Customer Service	RS
Culinary Arts	EM, SC
Culinary Arts I	EM, SC
Culinary Arts II	EM, SC
Culinary Fundamentals	SC, SM
Debt Resolution: Customer Service	RS
Debt Resolution: Sales	RS
Enrolled Agent	CG, GC, GW, MC, PC, PV, RS, SC, SM
Entrepreneurial Studies Level I	GC, GW, MC, PC, PV, RS, SC, SM
Entrepreneurial Studies Level II	GC, GW, MC, PC, RS, SC, SM
Esports	CG, RS, SM
Fashion Merchandising	MC, PC
Financial Industry	GW
General Business	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Health Care Insurance: Customer Service	RS
Hospitality: Golf Management	SC
Hospitality: Hotel Management	SC
Hospitality: Meeting and Event Management	SC
Hospitality: Restaurant Management	SC
Hospitality: Spa and Wellness Center Management	SC
Hospitality: Tourism Development and Management	SC
Human Resources Management	CG, GC, GW, MC, PC, RS, SC, SM
Insurance: Customer Service	RS
Licensed Residential Appraiser	MC
Loan Consolidation: Customer Service	RS
Management	CG, GC, GW, MC, PC, PV, RS, SC, SM
Marketing	GC, GW, MC, PC, PV, SC, SM
Marketing and Sales	GC, GW, MC, PC, PV, SC
Motor Vehicle: Customer Service	RS

Organizational Leadership	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Organizational Management	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Personal Loans: Customer Service	RS
Prescription Prior Authorization: Customer Service	RS
Project Management	MC
Property Insurance: Customer Service	RS
Public Administration	RS
Public Relations	MC
Quality Customer Service	RS
Real Estate: Prelicense	GC, MC, PV, RS, SC, SM
Residential Appraisal Trainee	MC
Retail Management	CG, EM, GC, GW, MC, PC, RS, SC, SM
Retail Pharmacy: Customer Service	RS
Risk Management and Insurance	CG, MC, RS, SC
Securities Industry Essentials	CG, GC, GW, MC, PC, PV, SC, SM
Security Industry Essentials: Pre-licensure	CG, GC, GW, PC, SC
Small Business Management Level I	CG, GC, GW, EM, MC, PC, RS, SM
Small Business Management Level II	CG, GC, GW, MC, PC, RS, SM
Small Business Start-Up	CG, PV
State Service Leadership: ADOT Leads	GW
Social Media Marketing	CG, EM, GC, MC, PC, PV, SC, SM
Telecommunications Collections	RS
Utilities: Customer Service	RS
Water Services: Customer Service	RS
Web Hosting: Customer Service	RS

Computer and Information Technology

Field	College
Adobe Foundations: Animation and Graphics Production	CG, GC, MC, PV, SM
Adobe Foundations: Audio and Video Production	MC, SM
Amazon Web Services Cloud Associate	CG, GC, GW, MC, PC, PV, SC, SM
Amazon Web Services Cloud Practitioner	CG, GC, GW, MC, PC, PV, SC, SM
Amazon Web Services Cloud Specialist	CG, GC, GW, MC, PC, PV, SC, SM
Android App Development	CG, GW, MC, PC, RS, SM
Associate in Science, Emphasis in Computer Science	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Blockchain Technology	RS
Cisco Certified Network Professional: Enterprise	CG, GC, GW, MC, PV, SC, SM
Cisco Certified Network Professional: Enterprise Advanced Routing and Services	CG, GC, GW, MC, PV, SC, SM

Cisco Certified Network Professional: Enterprise Core	CG, GC, GW, MC, PV, SC, SM	Microsoft System Administration	CG, EM, GC, GW, MC, PC, PV
Cisco Network Administration and Security	CG, EM, GC, GW, MC, PV, SC, SM	Mobile App Development	MC, PC, PV, RS, SC, SM
Cisco Network Administration: CCNA	CG, EM, GC, GW, MC, PC, SC, SM	Native Mobile App Development	GW, MC, PC, PV, RS, SM
Cisco Network Administration: CCNP	CG, EM, GC, GW, MC, PC, SC, SM	Network and Cyber Fundamentals	GW
CompTIA A+ Certification Prep	GW	Network and Systems Administration	CG, EM, GC, GW, MC, PC, PV, SC, SM
CompTIA Security+ Certification Prep	GW	Network Specialist (Day)	GW
Computer Support Specialist (Day)	GW	Network Specialist (Night)	GW
Computer Support Specialist (Night)	GW	Network Support Specialist	GW
Computer System Configuration and Support	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM	Network Support Technician	GW
Computer System Configuration and Support, Linux	CG, EM, GC, GW, MC, PC, PV, SC, SM	Oracle Database Operations	CG
Computer System Configuration and Support, Network	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM	Programming	EM, RS, SM
Computer System Configuration and Support, Security	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM	Programming and Systems Analysis	CG, EM, GC, MC, PC, PV, RS, SC
Critical Infrastructure	EM, GC	Programming and Systems Analysis Level I	CG, EM, GC, MC, PC, PV, RS, SC
Cross Functional Design and Web Essentials	MC, SC	Programming and Systems Analysis Level II	CG, EM, GC, MC, PC, PV, RS, SC
Cross-Platform App Development	GW, MC, PC, RS, SM	Python Applications	CG, MC, SM
Cyber Engineering	CG, EM, GC, MC, PC, PV, RS, SC, SM	Red Hat Linux Administrator	CG, EM, GC, GW, MC, PC, PV, SC, SM
Cyber Operations	CG, GC, GW, MC, PV, SM	Red Hat Linux Engineer	CG, EM, GC, GW, MC, PC, PV, SC, SM
Cybersecurity	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM	Security Specialist	GW
Cybersecurity Fundamentals	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM	Video Game Production	GC, MC, PV
Data Analytics	CG, EM, GW, MC, PV, RS, SC	Video Game Production: Audio and Sound	GC, MC, PV
Database Development	EM, MC, SC	Video Game Production: Coding and Scripting	GC, MC, PV
Desktop Support	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM	Video Game Production: Game Art	GC, MC, PV
Foundations of Mobile App Development	MC, PC, RS, SM	Video Game Production: Game Narrative	GC, MC, PV
Information Security	GC	VMware Foundations	EM, GC, GW, MC, PC, SC
Information Security Technology	GC	VMware Network Administrator	CG, EM, GC, MC
Information Technology	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM	VMware Systems Administrator	EM, GC, GW, MC, PC, SC
iOS App Development	CG, GC, GW, MC, PC, PV, RS, SC, SM	Web App Development	CG, GC, GW, MC, PC, PV, RS, SC, SM
IT Security Associate	EM	Web Design	CG, EM, GC, MC, PV, RS, SC, SM
Kubernetes Security	CG, GC, MC	Web Design/Development	CG, EM, GC, MC, PC, PV, RS, SC, SM
Linux Associate	CG, EM, GC, GW, MC, PC, PV, SC, SM	Web Development	CG, EM, GC, GW, MC, PC, PV, SC, SM
Linux System Administration	CG, EM, GC, GW, MC, PC, PV, SC, SM	Web Foundations	CG, EM, GC, MC, PC, PV, RS, SC, SM
Microsoft Desktop Associate	CG, EM, GC, GW, MC, PC, PV, SC, SM	Windows App Development	GW, MC, PC, RS, SM
Microsoft Office Professional	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM		
Microsoft Office Specialist	CG, EM, GC, GW, MC, PV, RS, SC, SM		

Culture and Society

Field	College
African-American Studies	MC
American Indian Studies	MC, PC, SC
Applied Bilingual Spanish Language Skills	SM

Applied Storytelling	EM, SM
Associate in Arts, Emphasis in American Indian Studies	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Anthropology	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Communication	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Economics	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in English (Creative Writing)	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in English (Literature)	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in History	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Humanities	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Information Studies and eSociety	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Japanese	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Philosophy	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Religious Studies	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Sociology	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Spanish	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Women and Gender Studies	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Chicana and Chicano Studies	CG, GC, PC
Communication Competence in the Workplace	GC, MC
Communication Skills for Non-Native English Speakers	GC, MC
Creative Writing	CG, EM, GC, MC, PC, PV, RS
Deaf Studies	PC
Foundations of Storytelling	EM, SM
Global Citizenship	MC
International Studies	PC
Interpreter Preparation	PC
Journalism and New Media Studies	GC, MC
Language and Literary Culture of the USA	RS
Language Studies	CG, GC, MC, RS
Oral Communication Fluency for Non-Native English Speakers	GC, MC
Southwest Studies	PC
Spanish Language and Culture	CG, MC, RS
Sustainability and Ecological Literacy	EM, RS, SM
Sustaining and Advancing Indigenous Nations	SC
Traditional and Fact-Based Storytelling	EM, SM
Women and Gender Studies	CG, MC

Education

Field	College
Associate in Arts, Elementary Education (AAEE)	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Early Childhood Education	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Educational Studies Early Childhood	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Secondary Education	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Science, Emphasis in Secondary Education	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Early Childhood Education	CG, EM, GC, MC, PC, PV, RS, SM
Foundations of Early Childhood Education	CG, EM, GC, MC, PC, PV, RS, SM
Gifted Education	EM
Instructional Assistance	MC, SM
K-12 eLearning Design	RS
K-12 Online Teaching	RS

Health Sciences

Field	College
Aesthetician (24 Hours Per Week)	GW
Aesthetics Instructor	GW
Associate in Arts, Emphasis in Community Health	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Exercise Science	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Nutritional Science	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Speech and Hearing Science	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Clinical Medical Assisting	PC
Community Health Paramedicine	GC, MC, PC, PV
Computed Tomography	GW
Cosmetologist (20 Hours Per Week)	GW
Cosmetologist (32 Hours Per Week)	GW
Cosmetologist (High School)	GW
Cosmetology Instructor	GW
Critical Care Paramedicine	GC, MC, PC, PV
Dental Assisting	PC
Dental Hygiene	MC, PC, RS
Diagnostic Medical Sonography	GW
Electrocardiogram (ECG) Technician	GW
Electroneurodiagnostic (END) Technology	GW
Emergency Medical Services and Fire Preparatory Academy	GW
Emergency Medical Technology	CG, GC, MC, PC, PV, RS
Emergency Medical Technology (EMT)	GW
Emergency Medical Technology (EMT) (High School)	GW
Emergency Medical Technology Comprehensive	CG, GC, MC, PC, PV

Endoscopy	GW
Exercise Science: Health, Fitness and Sports Performance	CG, GC, MC, PV, SC, SM
Fast Track Practical Nursing	GC, GW, MC
Foundations of Sports Medicine	RS
Group Fitness Instructor	MC
Hair Stylist (20 Hours Per Week)	GW
Hair Stylist (32 Hours Per Week)	GW
Health and Wellness Coaching	GC
Health Information Technology	PC
Health Information: Long Term Care Settings	PC
Health Services Management	GW
Health Unit Coordinating/Patient Care Associate	GW
Healthcare Regulatory Compliance	GW
Healthcare Technology Systems	PV
Histologic Technology	PC
Hospital Central Service Technology	GW
Integrated Public Health: Community Health Work	PV, SC
Laboratory Assisting	PC
Magnetic Resonance Imaging	GW
Massage Therapy	PC
Massage Therapy (24 Hours Per Week)	GW
Medical Administrative Assisting	PC
Medical Assisting (Day)	GW
Medical Assisting (Night)	GW
Medical Billing and Coding: Physician Based (Day)	GW
Medical Billing and Coding: Physician Based (Night)	GW
Medical Billing and Coding: Physician-Based	PC
Medical Coding: Hospital-Based	PC
Medical Interpreter - Spanish (12 Hours Per Week)	GW
Medical Interpreter - Spanish (6 Hours Per Week)	GW
Medical Laboratory Science	PC
Micro Certificate in Recreation Management	SC
Musculoskeletal Sonography	GW
Nail Technician	GW
Nail Technician Instructor	GW
Nuclear Medicine Technology	GW
Nurse Assisting	GC, GW, MC, PV, SC
Nursing	CG, EM, GC, GW, MC, PC, PV, SC
Nursing Refresher	GW, MC
Nutrition and Dietetic Technology	PV
Nutrition for Personal Trainers and Coaches	SC
Occupational Therapy Assistant	GW
Operating Room Nursing	GW
Ophthalmic Medical Administrative Assistant Apprenticeship	GW
Ophthalmic Medical Assistant	GW
Ophthalmic Medical Assistant Apprenticeship	GW
Paramedicine	GC, MC, PC, PV
Personal Trainer	CG, GC, MC, PV, SC, SM

Personal Trainer: Advanced	CG, GC, MC, PV, SC, SM
Pharmacy Technician	GW
Pharmacy Technician Apprenticeship	GW
Pharmacy Technology	SC
Phlebotomy	PC
Phlebotomy (Day)	GW
Phlebotomy (Night)	GW
Physical Therapist Assisting	GW
Polysomnographic Technology	GW
Practical Nursing	CG, EM, GC, GW, MC, PC, PV, SC
Radiologic Technology	GW
Recreation Management	SC
Respiratory Care	GW
Spanish Interpreting for Healthcare Professionals	GW
Speech Language Pathology Assistant	EM
Sustainable Food Systems	RS
Sustainable Food Systems: Food Entrepreneur	RS
Sustainable Food Systems: Food Service	RS
Tactical Emergency Casualty Care	GC, MC, PC, PV
Yoga Instruction	SC

Science, Technology, Engineering and Mathematics

Field	College
Artificial Intelligence and Machine Learning	CG, EM
Associate in Arts, Emphasis in Food Science and Technology	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Arts, Emphasis in Geography	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Mathematics	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Arts, Emphasis in Sustainability and Environmental Studies	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Science, Emphasis in Astronomy	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Science, Emphasis in Biochemistry	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Science, Emphasis in Biological Sciences	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Science, Emphasis in Chemistry	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Science, Emphasis in Engineering	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Science, Emphasis in Geography - Meteorology	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Science, Emphasis in Geology	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Associate in Science, Emphasis in Physics	CG, EM, GC, GW, MC, PC, PV, RS, SC, SM
Biomedical Equipment Technology	GC, MC
Biotechnology and Molecular Biosciences	GC
Electronics Engineering Technology	MC

Electronics Technology	MC
Engineering Technology	CG, EM, GC, PV, SM
Environmental and Natural Resource Conservation	PC
Environmental and Natural Resource Stewardship	PC
Equine Science	SC
Food Science and Technology I	SM
Food Science and Technology II	SM
Geospatial Technologies	MC
Landscape Aide	MC
Landscape Horticulture	MC
Landscape Specialist	MC
Mortuary Science	CG
Sustainability	CG, GC, MC, PV, RS, SC, SM
Sustainable Agriculture	MC
Veterinary Assisting	MC
Veterinary Technology	MC
Workforce Development: Introduction to Sustainable Food Systems	RS

Visual and Performing Arts

Field	College
Alteration Specialist	MC, PC
Animation	GC, MC, PC
Animation and Time-Based Media	GC, MC, PC
Apparel Construction	MC, PC
Associate in Arts, Fine Arts	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Arts, Fine Arts, Emphasis in Art	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Arts, Fine Arts, Emphasis in Dance	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Arts, Fine Arts, Emphasis in Music	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Arts, Fine Arts, Emphasis in Musical Theatre	CG, EM, GC, GW, MC, PC, PV, SC, SM
Associate in Arts, Fine Arts, Emphasis in Theatre	CG, EM, GC, GW, MC, PC, PV, SC, SM
Audio Production Technologies	GC, MC, PC, PV
Beginning Piano Pedagogy	MC
Ceramics	MC
Commercial and Freelance Photography	GC, PC
Costume Design and Production, Level I	MC, PC
Costume Design and Production, Level II	PC
Dance Performance and Technology	SC
Digital Arts: Digital Photography	MC
Digital Media Arts	GC, PC
Disc Jockey Techniques	MC
Disc Jockey Techniques I	MC
Disc Jockey Techniques II	MC
Documentary Film Production	GC
Drawing and Painting	MC
Editing	SC

Fashion Design	MC, PC
Fashion Design: Entrepreneur	PC
Fashion Design: Level I	MC, PC
Fashion Design: Level II	PC
Fashion Illustration	PC
Film and Media Production	GC
Graphic Design	MC, PC
Illustration	CG, MC, PC
Illustration and Sequential Art	CG, MC, PC
Image Consultant	MC
Industrial Sewing	PC
Interior Design	PC, SC
Interior Design Kitchen and Bath	PC, SC
Interior Design Professional	SC
Interior Design Technology	PC, SC
Interior Design Upholstery and Soft Goods Production	PC
Interior Merchandising and Home Staging	EM, PC, SC
Intermediate Piano Pedagogy	MC
Motion Picture Production	SC
Motion Picture, Television, and New Media Production	SC
Music Business I	GC, MC, PC, PV, SM
Music Business II	GC, MC, PC, PV, SM
Music Industries: Music Business	GC, MC, PC, PV, SM
Pattern Design, Level I	PC
Pattern Design, Level II	PC
Photography	CG, GC, MC, PC
Retail Sales Manager	MC
Screenwriting	SC
Sequential Art	CG, MC, PC
Technical Theatre	MC, PC, SC
Technical Theatre: Audio Technician	GC, MC, PC, PV
Technical Theatre: Cosplay I	MC
Technical Theatre: Cosplay II	MC
Technical Theatre: Costuming	GC, MC, PC, PV
Technical Theatre: Hair and Makeup	MC
Technical Theatre: Lighting	MC, PC, PV
Technical Theatre: Properties	MC, PC, PV, SC
Technical Theatre: Puppetry	MC, PC, PV
Technical Theatre: Set/Scenic Construction	MC, PC
Technical Theatre: Stage Crew Technician	GC, MC, PC, PV, SC
Textile and Apparel: Fashion Stylist	MC
Time-Based Media	MC, PC
Visual Communication	SC
Visual Communication: Creative Branding	SC
Visual Communication: Design	SC
Visual Communication: Digital Process Management	SC

ACADEMIC DIVISIONS

Courses offered at CGCC fall under one of the following academic divisions. They include:

Aviation & Applied Technology

Bashir Khalil
480-988-8112 | bashir.khalil@cgcc.edu

Courses

Prefix	Course
AET	Aeronautics
AIT	Automated Industrial Technology
AMT	Aircraft Maintenance Technology
EUT	Electric Utility Technology
PPT	Power Plant Technology
UAS	Unmanned Aircraft Systems

Career Programs

Aircraft Maintenance Technology
Aircraft Maintenance Technology-Airframe
Aircraft Maintenance Technology-Powerplant
Airway Science Technology, Flight Emphasis
Certified Flight Instructor Instrument Airplane Rating
Electric Utility Technology
Unmanned Aircraft Systems

Biological Sciences

Kimberley Patterson, Division Chair
480-732-7083 | kimberley.patterson@cgcc.edu

Courses

Prefix	Course
BIO	Biology
ENV	Environmental Studies
SSH	Sustainability Social Sciences
SUS	Sustainability/Natural Sciences

Career Programs

Sustainability

Business & Computing Studies

Barbara Gonzalez, Division Chair
602-243-8044 | barbara.gonzalez@cgcc.edu

Courses

Prefix	Course
ACC	Accounting
BPC	Business-Personal Computers
CIS	Computer Information Systems
CLD	Cloud Computing
CNT	Cisco Network Technology
CSC	Computer Science
GBS	General Business
IBS	International Business

ITS	Information Technology Security
MGT	Management
MKT	Marketing
MST	Microsoft Technology
OAS	Office Automation Systems
PAD	Public Administration
SBS	Small Business Management
SBU	Society and Business

Career Programs

Accounting
Administrative Professional
Adobe Foundations: Animation and Graphics Production
Amazon Web Services Cloud Associate
Amazon Web Services Cloud Practitioner
Android App Development
Business Administration Fastrack
Cisco Certified Network Professional Enterprise
Cisco Certified Network Professional: Enterprise Advanced Routing and Services
Cisco Certified Network Professional: Enterprise Core
Cisco Network Administration and Security
Cisco Network Administration: CCNA
Cisco Network Administration: CCNP
Computer System Configuration and Support
Computer System Configuration and Support, Linux
Computer System Configuration and Support, Network
Computer System Configuration and Support, Security
Cyber Engineering
Cyber Operations
Cybersecurity
Cybersecurity Fundamentals
Desktop Support
Enrolled Agent
General Business
Human Resources Management
Information Technology
iOS App Development
Linux Associate
Linux System Administration
Management
Microsoft Desktop Associate
Microsoft Office Professional
Microsoft Office Specialist
Microsoft System Administration
Network and Systems Administration
Oracle Database Operations
Organizational Leadership
Organizational Management
Programming and Systems Analysis
Programming and Systems Analysis Level I
Programming and Systems Analysis Level II
Red Hat Linux Administrator
Red Hat Linux Engineer
Retail Management
Risk Management and Insurance
Securities Industry Essentials
Small Business Start-Up
Social Media Marketing
VMware Network Administrator

Web App Development
 Web Design
 Web Design/Development
 Web Development
 Web Foundations

Communication & Fine Arts

Micaela Church, Division Chair
 480-732-7136 | micaela.church@cgc.edu

Courses

Prefix	Course
ARH	Art Humanities
ART	Art
COM	Communication
DAH	Dance Humanities
DAN	Dance
MCO	Mass Communications
MHL	Music: History/Literature
MTC	Music: Theory/Composition
MUC	Music: Commercial/Business
MUE	Music: Education
MUP	Music: Performance
STO	Storytelling
THE	Theatre
THF	Theatre and Film
THP	Theater Performance/Production

Career Programs

Illustration
 Illustration and Sequential Art
 Photography
 Sequential Art

Composition, Creative Writing & Literature

Mary Zimmerer, Division Chair
 480-857-5441 | mary.zimmerer@cgc.edu

Courses

Prefix	Course
CRE	Critical Reading
CRW	Creative Writing
ENG	English
ENH	English Humanities
GST	Game Studies
HUM	Humanities
JRN	Journalism
RDG	Reading
WAC	Writing Across Curriculum

Career Programs

Creative Writing

Health Science and Public Service

Kimberly McGee, Division Chair

480-726-4246 | kimberly.mcgee@cgc.edu

Courses

Prefix	Course
AJS	Administration of Justice Studies
EMT	Emergency Medical Technology
EXS	Exercise Science
FON	Food and Nutrition
HES	Health Science
LET	Law Enforcement Technology
MSP	Mortuary Science
PED	Physical Education
REC	Recreation
WED	Wellness Education

Career Programs

Administration of Justice
 Administration of Justice Studies
 Corrections
 Crime Scene Investigation
 Emergency Medical Technology
 Emergency Medical Technology Comprehensive
 Exercise Science: Health, Fitness and Sports Performance
 Fingerprint Identification and Photography
 Forensic Science
 Homeland Security
 Law Enforcement
 Law Enforcement Training
 Law Enforcement Training Academy
 Leadership in Public Safety Organizations
 Legal Studies
 Mortuary Science
 Personal Trainer
 Personal Trainer: Advanced
 Victimology

Counseling

Ryan Adams (Program Co-Director, Services)
 480-726-4012 | counseling@cgc.edu

Audra Woilfe (Program Co-Director, Academics)
 480-726-4012 | counseling@cgc.edu

Courses

Prefix	Course
CAP	Counseling and Applied Psychology
CPD	Counseling and Personal Development
FYE	First Year Experience

Mathematics

Pamela Woodbury, Division Chair
 480-857-5531 | pamela.woodbury@cgc.edu

Courses

Prefix	Course
MAT	Mathematics

Languages, Humanities, Learning Center and Information Studies

Paul Petrequin, Division Chair
480-857-5256 | paul.petrequin@cg.edu

Courses

Prefix	Course
AIS	American Indian Studies
ASL	American Sign Language
BHS	Behavioral Health Services Technology
CCS	Chicana and Chicano Studies
ESL	English as a Second Language
GER	German
HIS	History
IFS	Information Studies
NAV	Navajo
PHI	Philosophy
REL	Religious Studies
SLC	Studies in Language and Culture
SPA	Spanish
SPH	Spanish Humanities
WST	Women's Studies

Nursing

Jill Anderson, Division Chair
480-988-8865 | jill.anderson@cg.edu

Courses

Prefix	Course
HCC	Health Core Curriculum
HCR	Health Care Related
NCE	Nursing Continuing Education
NUR	Nursing Science: Basic

Career Programs

Nursing

Physical Sciences & Engineering

Arlisa Richardson, Division Chair
623-988-8017 | arlisa.richardson@cg.edu

Courses

Prefix	Course
AIM	Artificial Intelligence and Machine Learning
AST	Astronomy
CHM	Chemistry
ECE	Engineering Science
EEE	Electrical Engineering
ELE	Electronics
ELT	Electronics Technology
GLG	Geology
GPH	Physical Geography
PHY	Physics

Career Programs

Artificial Intelligence
Artificial Intelligence and Machine Learning

Social & Behavioral Sciences

Linda Zehr, Division Chair
480-857-5530 | linda.zehr@cg.edu

Courses

Prefix	Course
AFR	African American Studies
AIS	American Indian Studies
ASB	Anthropology
ASM	Anthropology
CFS	Child/Family Studies
ECH	Early Childhood Education
ECN	Economics
EDU	Education
EED	Early Education
ETL	Excellence/Teaching/Learning
POS	Political Science
PSY	Psychology
SOC	Sociology

Career Programs

Early Childhood Education
Foundations of Early Childhood Education
Women and Gender Studies

EDUCATIONAL PROGRAMS

The Chandler-Gilbert Community College (CGCC) mission statement calls for serving “students and its diverse communities by providing quality life-long learning opportunities in a learner-centered environment through effective, accessible educational programs and activities.” CGCC faculty, staff, and administration are committed to providing a “dynamic learning community reflecting collaboration, diversity, and student success through quality, enthusiastic teaching, learning, and serving.” CGCC students have several choices of educational programs to pursue:

- Degrees offered by all Maricopa Community Colleges and found in the Degree Requirements section of this catalog:
 - Associate in Arts; Associate in Arts in Elementary Education; Associate in Arts, Fine Arts in Art, Dance, and Theatre; Associate in Business; and Associate in Science degrees offered by all Maricopa Community Colleges and designed for students who may or may not know their majors but plan to transfer to one of Arizona’s public universities.
 - Associate in General Studies degree for students whose educational goals require flexibility and a broader choice of courses.
- Occupational programs offered at CGCC have several missions: preparing students for employment, upgrading students’ existing job skills, and assisting students in career changes. Students can choose from several alternatives:
 - Associate in Applied Science degree programs – usually a two-year program of course work.
 - Certificate Programs – a series of courses designed for concentrated proficiency in specialized career fields.
 - Individual courses – designed to meet individual career or personal needs.

Because change is a constant factor in the employment picture, each occupational program has an advisory council. These councils are composed of local leaders in industry and provide valuable assistance to faculty as they continually adjust the courses and programs to meet community needs. With the support of the advisory councils, highly qualified faculty, and up-to-date facilities, students are assured quality instruction in their future career field.

Students who choose to transfer to four-year institutions will find that many credits are transferable and provide a beginning foundation for completing a baccalaureate degree. The AAS degrees transfer as a “block” to the Bachelor of Applied Science at Arizona State University (Polytechnic and West campuses), and Northern Arizona University.

- Academic Certificates for students who wish to gain additional expertise in an academic area.
- Special programs include:
 - Continuing Education and Workforce Development
 - English as a Second Language
 - Fitness, Wellness, and Recreation
 - Honors Program
 - Performing Arts
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- Aircraft Maintenance Technology - Airframe, Associate in Applied Science (p. 96)
- Aircraft Maintenance Technology - Airframe, Certificate of Completion (p. 98)
- Aircraft Maintenance Technology - Powerplant, Associate in Applied Science (p. 99)
- Aircraft Maintenance Technology - Powerplant, Certificate of Completion (p. 100)
- Airway Science Technology - Flight Emphasis, Associate in Applied Science (p. 101)
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- Electric Utility Technology, Associate in Applied Science (p. 103)
- Electric Utility Technology, Certificate of Completion (p. 105)
- Unmanned Aircraft Systems, Associate in Applied Science (p. 105)
 - Unmanned Aircraft Systems, Certificate of Completion (p. 107)
- Biological Sciences (p. 107)
 - Sustainability, Academic Certificate (p. 107)
- Business & Computing Studies (p. 108)
 - Accounting, Associate in Applied Science (p. 109)
 - Accounting, Certificate of Completion (p. 110)
 - Administrative Professional, Associate in Applied Science (p. 111)
 - Administrative Professional, Certificate of Completion (p. 112)
 - Adobe Foundations: Animation and Graphics Production, Certificate of Completion (p. 113)
 - Amazon Web Services Cloud Associate, Certificate of Completion (p. 113)
 - Amazon Web Services Cloud Practitioner, Certificate of Completion (p. 114)
 - Android App Development, Certificate of Completion (p. 114)
 - Cisco Certified Network Professional: Enterprise, Certificate of Completion (p. 115)
 - Cisco Certified Network Professional: Enterprise Advanced Routing and Services, Certificate of Completion (p. 116)
 - Cisco Certified Network Professional: Enterprise Core, Certificate of Completion (p. 117)
 - Cisco Network Administration and Security, Certificate of Completion (p. 118)
 - Cisco Network Administration: CCNA, Certificate of Completion (p. 118)
 - Cisco Network Administration: CCNP, Certificate of Completion (p. 119)
 - Computer System Configuration and Support, Certificate of Completion (p. 120)
 - Computer System Configuration and Support, Linux, Certificate of Completion (p. 121)
 - Computer System Configuration and Support, Network, Certificate of Completion (p. 121)
 - Computer System Configuration and Support, Security, Certificate of Completion (p. 122)
 - Cyber Engineering, Certificate of Completion (p. 123)

- Cyber Operations, Certificate of Completion (p. 124)
 - Cybersecurity, Associate in Applied Science (p. 125)
 - Cybersecurity Fundamentals, Certificate of Completion (p. 127)
 - Desktop Support, Certificate of Completion (p. 128)
 - Enrolled Agent, Certificate of Completion (p. 129)
 - General Business, Associate in Applied Science (p. 130)
 - General Business, Certificate of Completion (p. 131)
 - Information Technology, Associate in Applied Science (p. 132)
 - iOS App Development, Certificate of Completion (p. 142)
 - Linux Associate, Certificate of Completion (p. 142)
 - Linux System Administration, Certificate of Completion (p. 143)
 - Microsoft Desktop Associate, Certificate of Completion (p. 143)
 - Microsoft Office Professional, Certificate of Completion (p. 144)
 - Microsoft Office Specialist, Certificate of Completion (p. 145)
 - Microsoft System Administration, Certificate of Completion (p. 146)
 - Network and Systems Administration, Associate in Applied Science (p. 146)
 - Oracle Database Operations, Certificate of Completion (p. 150)
 - Organizational Leadership, Certificate of Completion (p. 151)
 - Organizational Management, Associate in Applied Science (p. 151)
 - Programming and Systems Analysis, Associate in Applied Science (p. 152)
 - Programming and Systems Analysis Level I, Certificate of Completion (p. 154)
 - Programming and Systems Analysis Level II, Certificate of Completion (p. 155)
 - Red Hat Linux Administrator, Certificate of Completion (p. 157)
 - Red Hat Linux Engineer, Certificate of Completion (p. 157)
 - Retail Management, Certificate of Completion (p. 158)
 - Securities Industry Essentials, Certificate of Completion (p. 158)
 - Small Business Start-Up, Certificate of Completion (p. 159)
 - Social Media Marketing, Certificate of Completion (p. 159)
 - VMware Network Administrator, Certificate of Completion (p. 160)
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 - Health Science and Public Service (p. 173)
 - Administration of Justice Studies, Associate in Applied Science (p. 173)
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 - Emergency Medical Technology, Certificate of Completion (p. 177)
 - Emergency Medical Technology Comprehensive, Certificate of Completion (p. 177)
 - Exercise Science: Health, Fitness and Sports Performance, Associate in Applied Science (p. 178)
 - Fingerprint Identification and Photography, Certificate of Completion (p. 180)
 - Forensic Science, Associate in Applied Science (p. 181)
 - Forensic Science, Certificate of Completion (p. 183)
 - Homeland Security, Certificate of Completion (p. 183)
 - Law Enforcement, Certificate of Completion (p. 184)
 - Law Enforcement Training, Associate in Applied Science (p. 184)
 - Law Enforcement Training Academy, Certificate of Completion (p. 185)
 - Leadership in Public Safety Organizations, Certificate of Completion (p. 186)
 - Legal Studies, Certificate of Completion (p. 187)
 - Mortuary Science, Associate in Applied Science (p. 187)
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 - Foundations of Early Childhood Education, Certificate of Completion (p. 201)
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- ## Aviation & Applied Technology
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Certificate Of Completion (CCL)

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Aircraft Maintenance Technology, Associate in Applied Science



**APPLIED
TECHNOLOGY**

Associate in Applied Science: AAS 3670

88-115 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Aircraft Maintenance Technology degree is designed to provide students with strong General Education skills in support of their aviation maintenance knowledge. This degree prepares students to enter careers in aircraft (fixed-wing and rotorcraft) and structural manufacturing and maintenance. Graduates can potentially work in general, corporate, commercial, or military sectors. Students who complete this program are eligible to apply for relevant Federal Aviation Administration written, oral, and practical exams. A Certificate of Completion (CCL) in Aircraft Maintenance Technology is fully embedded in this AAS.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in this Aircraft Maintenance Technology program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-19	
AMT124 & AMT126 & AMT128	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations and Fundamentals of Mathematics and Electricity and Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin		
Hold a valid FAA Airframe or Powerplant Certificate			
AMT220	Fundamentals Of Aircraft Wood Structures, Covering And Finishing, And Bonded Structures	3	
AMT222	Atmosphere Control, Fire Detection, Ice and Rain Protection Systems	4	
AMT224	Aircraft Sheet Metal	5	
AMT226	Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position And Warning Systems	7	
AMT228	Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication And Navigation Systems	7	
AMT230	Airframe Assembly, Inspection And Welding	6	
AMT263	Aircraft Turbine Engines	5	

AMT264	Aircraft Reciprocating Engines	7	_____
AMT266	Engine Fuel Systems, Fuel Metering and Induction System	6	_____
AMT268	Engine Electrical, Ignition and Starter Systems	6	_____
AMT270	Engine Instruments, Fire Protection And Lubrication, Cooling And Exhaust Systems	5	_____
AMT272	Propeller Systems and Engine Inspections	4	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____

General Education**Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

Oral Communication

Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____

Critical Reading

Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____

Or equivalent as indicated by assessment

Mathematics

Select one of the following:		3-6	_____
MAT120	Intermediate Algebra		_____

MAT121	Intermediate Algebra		_____
MAT122	Intermediate Algebra		_____
MAT126	Intermediate Algebra with Review		_____

Distribution*Humanities, Arts and Design*

Any approved general education course(s) from the Humanities, Arts and Design area

3

Social and Behavioral Sciences

Any approved general education course(s) in the Social and Behavioral Sciences area

3

Natural Sciences

PHY101 Introduction to Physics

4

Total Credits**88-115**

Aircraft Maintenance Technology, Certificate of Completion



APPLIED TECHNOLOGY

Certificate of Completion: CCL 5670

65-84 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Aircraft Maintenance Technology prepares students to enter careers in aircraft, fixed-wing and rotorcraft, and structural manufacturing and maintenance. Graduates can potentially work in general, corporate, commercial, manufacturing, and military sectors. Students who complete the certificate are eligible to apply for relevant Federal Aviation Administration (FAA) written, oral, and practical exams. This certificate is fully embedded in the Associate in Applied Science (AAS) in Aircraft Maintenance Technology.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in this certificate program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-19	
AMT124 & AMT126 & AMT128	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations and Fundamentals of Mathematics and Electricity and Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin		
Hold a valid FAA Airframe or Powerplant Certificate			
AMT220	Fundamentals Of Aircraft Wood Structures, Covering And Finishing, And Bonded Structures	3	
AMT222	Atmosphere Control, Fire Detection, Ice and Rain Protection Systems	4	
AMT224	Aircraft Sheet Metal	5	
AMT226	Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position And Warning Systems	7	
AMT228	Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication And Navigation Systems	7	
AMT230	Airframe Assembly, Inspection And Welding	6	
AMT263	Aircraft Turbine Engines	5	

AMT264	Aircraft Reciprocating Engines	7	
AMT266	Engine Fuel Systems, Fuel Metering and Induction System	6	
AMT268	Engine Electrical, Ignition and Starter Systems	6	
AMT270	Engine Instruments, Fire Protection And Lubrication, Cooling And Exhaust Systems	5	
AMT272	Propeller Systems and Engine Inspections	4	
Total Credits		65-84	

Aircraft Maintenance Technology - Airframe, Associate in Applied Science



Associate in Applied Science: AAS 3668
74-82 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Aircraft Maintenance Technology-Airframe degree is designed to provide students with strong General Education skills in support of their aviation maintenance knowledge. This degree prepares students to enter careers in aircraft and helicopter structural manufacturing and maintenance, where graduates can potentially work in general, corporate, commercial, or military sectors. Graduates are eligible to apply for relevant Federal Aviation Administration (FAA) written, oral, and practical exams. A Certificate of Completion (CCL) in Aircraft Maintenance Technology-Airframe is also available.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in this Aircraft Maintenance Technology - Airframe program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AMT124	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations	5	_____
AMT126	Fundamentals of Mathematics and Electricity	9	_____
AMT128	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin	5	_____
AMT220	Fundamentals Of Aircraft Wood Structures, Covering And Finishing, And Bonded Structures	3	_____
AMT222	Atmosphere Control, Fire Detection, Ice and Rain Protection Systems	4	_____
AMT224	Aircraft Sheet Metal	5	_____
AMT226	Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position And Warning Systems	7	_____
AMT228	Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication And Navigation Systems	7	_____
AMT230	Airframe Assembly, Inspection And Welding	6	_____

FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____

General Education

Core

First-Year Composition

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____

ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

Oral Communication

Select one of the following: 3 _____

COM100	Introduction to Human Communication		_____
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COM110	Interpersonal Communication		_____
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COM225	Public Speaking		_____
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COM230	Small Group Communication		_____
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Critical Reading

Select one of the following: 0-3 _____

CRE101	College Critical Reading and Critical Thinking		_____
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Or equivalent as indicated by assessment _____

Mathematics

Select one of the following: 3-6 _____

MAT120	Intermediate Algebra		_____
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MAT121	Intermediate Algebra		_____
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MAT122	Intermediate Algebra		_____
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MAT126	Intermediate Algebra with Review		_____
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Distribution

Humanities, Arts and Design

Any approved general education course(s) from the Humanities, Arts and Design area 3 _____

Social and Behavioral Sciences

Any approved general education course(s) in the Social and Behavioral Sciences area 3 _____

Natural Sciences

PHY101	Introduction to Physics	4	_____
Total Credits		74-82	_____

Aircraft Maintenance Technology - Airframe, Certificate of Completion



**APPLIED
TECHNOLOGY**

Certificate of Completion: CCL 5668

32-51 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgc.edu

Program Description

The Certificate of Completion (CCL) in Aircraft Maintenance Technology - Airframe program is designed to prepare students to enter careers in aircraft (fixed-wing and rotorcraft) structural manufacturing and maintenance. Graduates can potentially work in general, corporate, commercial, manufacturing, and military sectors. Graduates are eligible to apply for the Federal Aviation Administration (FAA), Aviation Maintenance Technician—Airframe exam. An Associates in Applied Science (AAS) in Aircraft Maintenance Technology - Airframe is also available.

Program Notes

Students must earn a grade of “C” or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in this certificate program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-19	_____

AMT124 & AMT126 & AMT128	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations and Fundamentals of Mathematics and Electricity and Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin	_____
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Hold a valid FAA Airframe or Powerplant Certificate			_____
AMT220	Fundamentals Of Aircraft Wood Structures, Covering And Finishing, And Bonded Structures	3	_____
AMT222	Atmosphere Control, Fire Detection, Ice and Rain Protection Systems	4	_____
AMT224	Aircraft Sheet Metal	5	_____
AMT226	Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position And Warning Systems	7	_____
AMT228	Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication And Navigation Systems	7	_____
AMT230	Airframe Assembly, Inspection And Welding	6	_____
Total Credits		32-51	_____

Aircraft Maintenance Technology - Powerplant, Associate in Applied Science



**APPLIED
TECHNOLOGY**

Associate in Applied Science: AAS 3665

75-83 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Aircraft Maintenance Technology - Powerplant degree is designed to provide students with strong General Education skills in support of their aviation maintenance knowledge. This degree prepares students to enter careers in aircraft (fixed-wing and rotorcraft), powerplant manufacturing and maintenance. Students who complete this degree can potentially work in general, corporate, commercial, manufacturing, and military sectors. Graduates are eligible to apply for relevant Federal Aviation Administration (FAA) written, oral, and practical exams. A Certificate of Completion (CCL) in Aircraft Maintenance Technology - Powerplant is also available.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in this Aircraft Maintenance Technology - Powerplant program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AMT124	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations	5	_____
AMT126	Fundamentals of Mathematics and Electricity	9	_____

AMT128	Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin	5	_____
AMT263	Aircraft Turbine Engines	5	_____
AMT264	Aircraft Reciprocating Engines	7	_____
AMT266	Engine Fuel Systems, Fuel Metering and Induction System	6	_____
AMT268	Engine Electrical, Ignition and Starter Systems	6	_____
AMT270	Engine Instruments, Fire Protection And Lubrication, Cooling And Exhaust Systems	5	_____
AMT272	Propeller Systems and Engine Inspections	4	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
General Education			
Core			
<i>First-Year Composition</i>			
ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____
<i>Oral Communication</i>			
Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____
<i>Critical Reading</i>			
Select one of the following:		0-3	_____

CRE101	College Critical Reading and Critical Thinking		_____
Or equivalent as indicated by assessment			_____
<i>Mathematics</i>			
Select one of the following:		3-6	_____
MAT120	Intermediate Algebra		_____
MAT121	Intermediate Algebra		_____
MAT122	Intermediate Algebra		_____
MAT126	Intermediate Algebra with Review		_____
Distribution			
<i>Humanities, Arts and Design</i>			
Any approved general education course(s) from the Humanities, Arts and Design area		3	_____
<i>Social and Behavioral Sciences</i>			
Any approved general education course(s) in the Social and Behavioral Sciences area		3	_____
<i>Natural Sciences</i>			
PHY101	Introduction to Physics	4	_____
Total Credits		75-83	_____

Aircraft Maintenance Technology - Powerplant, Certificate of Completion



APPLIED TECHNOLOGY

Certificate of Completion: CCL 5669

33-52 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgc.edu

Program Description

The Certificate of Completion (CCL) in Aircraft Maintenance Technology - Powerplant is designed to prepare students to enter careers in aircraft (fixed-wing and rotorcraft) powerplant manufacturing and maintenance. Graduates can potentially work in general, corporate, commercial, manufacturing, and military sectors. Students who complete the certificate are eligible to apply for relevant Federal Aviation Administration written, oral, and practical exams. An Associates in Applied Science (AAS) in Aircraft Maintenance Technology - Powerplant is also available.

Program Notes

Students must earn a grade of “C” or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in this certificate program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-19	_____
AMT124 & AMT126 & AMT128	Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations and Fundamentals of Mathematics and Electricity and Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittin		_____
Hold a valid FAA Airframe or Powerplant Certificate			
AMT263	Aircraft Turbine Engines	5	_____
AMT264	Aircraft Reciprocating Engines	7	_____
AMT266	Engine Fuel Systems, Fuel Metering and Induction System	6	_____
AMT268	Engine Electrical, Ignition and Starter Systems	6	_____
AMT270	Engine Instruments, Fire Protection And Lubrication, Cooling And Exhaust Systems	5	_____

AMT272	Propeller Systems and Engine Inspections	4	_____
Total Credits		33-52	_____

Airway Science Technology - Flight Emphasis, Associate in Applied Science



**APPLIED
TECHNOLOGY**

Associate in Applied Science: AAS 3707

65-85 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgcc.edu

Program Description

The Associate in Applied Science (AAS) in Airway Science Technology, Flight Emphasis program is designed to prepare students to apply technical knowledge and skills to the flying of commercial, corporate, or private aircraft. Program content includes private, instrument, commercial single-engine, commercial multi-engine, and flight instructor certifications. The program develops students' willingness to learn, critical thinking, organizational skills, initiative, reliability, accountability, communication, and resource management skills. During the program, students will be provided the resources and training required for Federal Aviation Administration (FAA) written and practical examinations.

Program Notes

Flight Policies

Flight and simulator training costs are the responsibility of the student. These include hourly costs for aircraft and flight instruction, tuition, fees, and other expenses. Once students have commenced flight training within the CGCC Airway Science, Flight Emphasis program, they will not receive college credit for flight instruction received at flight schools other than the school or schools with which Maricopa County Community College District has currently contracted for such instruction.

Students must meet FAA Aviation English Language Standards and complete Transportation Security Administration (TSA) Citizenship Verification (United States citizens) or Alien Flight School Program Application (non-United States citizens). By enrolling in this program, students agree to submit to random drug testing. Students must complete a security threat assessment for airport apron access.

Medical Certificates

A current medical certificate is required for all students planning to begin flight training. The physical examination must be performed by a medical doctor who is a designated Aviation Medical Examiner. Students are advised to obtain their medical certificates well in advance of beginning the flight program. This will ensure that medical problems or physical limitations that may alter career plans can be addressed before entering flight courses.

There are three types of medical certificates - Class III, Class II, and Class I, but students are advised to obtain a Class I certificate if they are planning a career in professional flight.

Students using Veteran Affairs education benefits must have at least a Class II medical certificate, but Class I is recommended, before beginning 200-level flight courses.

Flight labs must be taken concurrently with the appropriate ground courses. Attendance is mandatory in the aviation ground school courses in accordance with Federal Aviation Regulation (FAA) Part 141. Failure to meet these attendance requirements will disqualify the student for FAA pilot certification.

Aviation and related courses from other colleges and universities may transfer to CGCC. All aviation courses, flight or non-flight, are reviewed by the Aviation Program Coordinator for applicability.

Transfer of Pilot Ratings

Students who have pilot certificates or ratings from a college level program may apply for prior learning assessment. Students should complete this process before enrolling in any 200-level ground or flight courses.

In all cases, it is the responsibility of the student to initiate the process.

After three failed attempts in any flight or ground course, excluding withdrawals, students must seek division approval for re-enrollment.

Students must earn a grade of C or better for all courses required within the program. Overall program minimum GPA = 2.50.

Admission Criteria

All students must currently possess a Valid FAA Medical Certificate

Program Prerequisites

Students must consult with a Program Director, as the program prerequisites may be waived as requirements to the program for those students who have FAA Private Pilot Certificates and/or have course equivalents as indicated by assessment.

Code	Title	Credits	Semester
A division/program approved FAA Pilot Certificate OR		0	_____
AET107 & AET110	Private Pilot Ground School and Private Pilot Flight	5-6	_____
or AET112	Private Pilot Flight-Test Course		_____

Program Requirements

Code	Title	Credits	Semester
Required Courses			
AET115	Aviation Meteorology	3	_____

AET207 & AET210 & AET217 & AET220	Attitude Instruments and Navigation and Commercial Flight Lab I and Instrument Procedures and Instrument Flight Lab	8	_____	PSY101 & SOC101 & POS140 & COM263	Introduction to Psychology and Introduction to Sociology and Comparative Government and Elements of Intercultural Communication	_____
AET208	Aviation Safety	3	_____	General Education		
AET213 & AET221	Aerodynamics and Performance and Commercial Flight Lab II	4	_____	Core		
AET203 & AET222	Basic Airplane Systems and Commercial Flight Lab III	4	_____	First-Year Composition	6	_____
AET229	Crew Resource Management	3	_____	Select two of the following:		
AET237 & AET240	Multiengine Airplane Pilot Ground School and Multiengine Airplane Pilot Flight Lab	3	_____	ENG101	First-Year Composition (Select two of the following:)	_____
AET227 & AET230	Certified Flight Instructor: Airplane, Single Engine Land Ground School and Certified Flight Instructor: Airplane, Single Engine Land Flight Lab	6	_____	or ENG107	First-Year Composition for ESL	_____
AET225	Advanced Aircraft Systems	4	_____	ENG102	First-Year Composition	_____
AET239	Commercial Flight Lab IV	1	_____	or ENG108	First-Year Composition for ESL	_____
UAS107	Unmanned Aircraft Systems Operator Certification	3	_____	Oral Communication		
FYE101 or FYE103	Introduction to College, Career and Personal Success Exploration of College, Career and Personal Success	1-3	_____	Select one of the following: 3		
Recommended for Transfer: University of North Dakota		0-12	_____	COM100	Introduction to Human Communication	_____
				COM110	Interpersonal Communication	_____
				COM225	Public Speaking	_____
				COM230	Small Group Communication	_____
				Critical Reading		
				Select one of the following: 0-3		
				CRE101	College Critical Reading and Critical Thinking	_____
				Or equivalent as indicated by assessment		
				Mathematics		
				Select one of the following: 3-6		
				MAT120	Intermediate Algebra	_____
				MAT121	Intermediate Algebra	_____
				MAT122	Intermediate Algebra	_____
				MAT126	Intermediate Algebra with Review	_____
				Distribution		
				<i>Humanities, Arts and Design</i>		
				Any approved general education course(s) from the Humanities, Arts and Design area	3	_____
				<i>Social and Behavioral Sciences</i>		

Any approved general education course(s) in the Social and Behavioral Sciences area	3	_____
<i>Natural Sciences</i>		
PHY101 Introduction to Physics	4	_____
Total Credits	65-85	_____

Certified Flight Instructor Instrument Airplane Rating, Certificate of Completion



Certificate of Completion: CCL 5825N

4 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cgc.edu

Program Description

The Certificate of Completion (CCL) in Certified Flight Instructor Instrument Airplane Rating program in Airway Science Technology, Flight Emphasis is designed to prepare students to apply technical knowledge and skills to the flying of airplanes as a Certified Flight Instructor-Instrument Rated, and to prepare students to sit for the Federal Aviation Administration (FAA) written and practical examinations.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AET258	Certified Flight Instructor: Instrument Airplane Ground School	3	_____
AET270	Certified Flight Instructor: Instrument Airplane Flight Lab	1	_____
Total Credits		4	_____

Electric Utility Technology, Associate in Applied Science



Associate in Applied Science: AAS 3855

65-73 Credits

Program Contact

Jon Terpay | 480-988-8756 | jonathan.terpay@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Electric Utility Technology program is designed to prepare the student for the position of an apprentice-level line worker who is familiar with the use of tools, materials, and the equipment of the electric utility industry. Students will be trained in power line installation and maintenance, pole climbing and use of tools, truck and equipment operation, and overhead and underground distribution, construction, and maintenance of electrical lines. A Certificate of Completion (CCL) in Electric Utility Technology is fully embedded in this AAS.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

Students must obtain First Aid/Cardiopulmonary Resuscitation (CPR) certification by the completion of EUT215 Field Training II.

Student must provide an Arizona Department of Transportation Medical Certification to the Division Office of Aviation and Applied Technology prior to the first class period for EUT115 Field Training I.

Students must obtain a Commercial Drivers License from the State of Arizona and/or an interstate Commercial Drivers License Class A with no restrictions prior to completion of the Required Courses.

++ indicates any suffixed course may be selected.

Admission Criteria

Formal application and admission to the Electric Utility Technology program is required.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
EUT103	Introduction to Rigging	2	_____
EUT104	Equipment Safety and Operation	2	_____
EUT110	Line Work I	2	_____
EUT112	Basic Electricity: AC and DC	4	_____
EUT115	Field Training I	4	_____

EUT210	Line Work II	2	_____
EUT211	Electrical Apparatus	4	_____
EUT215	Field Training II	4	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
Select one of the following:		3-6	_____
MAT120	Intermediate Algebra		_____
MAT121	Intermediate Algebra		_____
MAT122	Intermediate Algebra		_____
MAT126	Intermediate Algebra with Review		_____
PPT120	Energy Industry Fundamentals	3	_____
Restricted Electives			
Select 15 credits from a minimum of 2 different course prefixes.		15	_____
Selected courses will not apply in both the Required and Restricted Electives areas.			
ACC+++++	Any ACC Accounting courses		_____
BPC+++++	Any BPC Business-Personal Computer courses		_____
CAD+++++	Any CAD Computer-Aided Drafting courses		_____
CIS+++++	ANY CIS Computer-Information Systems courses		_____
COM+++++	Any COM Communication courses		_____
DFT+++++	ANY DFT Drafting courses		_____
ECE+++++	Any ECE Engineering Science courses		_____
EEE+++++	Any EEE Electrical Engineering courses		_____
ELE+++++	Any ELE Electronic courses		_____

ELT+++++	Any ELT Electronics Technology		_____
EMT+++++	Any EMT Emergency Medical Technology courses		_____
HES+++++	Any HES Health Science courses		_____
GBS+++++	Any GBS General Business course		_____
NET+++++	Any NET Networking Technology courses		_____
PED+++++	Any PED Physical Education courses		_____
PHY+++++	Any PHY Physics courses		_____
PPT+++++	Any PPT Power Plant Technology courses		_____
SPA+++++	Any SPA Spanish Courses		_____
UAS+++++	Any UAS Unmanned Aircraft Systems courses		_____

General Education**Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

Oral Communication

Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____

Critical Reading

Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____
Or equivalent as indicated by assessment			_____

Mathematics

Met by MAT12+ in Required Course area	0	_____
Distribution		
<i>Humanities, Arts and Design</i>		
Any approved general education course(s) from the Humanities, Arts and Design area	3	_____
<i>Social and Behavioral Sciences</i>		
Any approved general education course(s) in the Social and Behavioral Sciences area	3	_____
<i>Natural Sciences</i>		
Any approved general education course(s) in the Natural Sciences area	4	_____
Total Credits	65-73	_____

Electric Utility Technology, Certificate of Completion



**APPLIED
TECHNOLOGY**

Certificate of Completion: CCL 5055

30-33 Credits

Program Contact

Jon Terpay | 480-988-8756 | jonathan.terpay@cg.edu

Program Description

The Certificate of Completion (CCL) in Electric Utility Technology program is designed to prepare the student for the position of an apprentice-level line worker who is familiar with the use of tools, materials, and the equipment of the electric utility industry. Students will be trained in power line installation and maintenance, pole climbing and use of tools, truck and equipment operation and overhead and underground distribution, construction and maintenance of electrical lines. This certificate is fully embedded in the Associate in Applied Science (AAS) in Electric Utility Technology.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00

Student must provide an Arizona Department of Transportation Medical Certification to the Division Office of Aviation and Applied Technology prior to the first class period for EUT115 Field Training I.

Students must obtain a Commercial Drivers™ License valid in the state of Arizona prior to completion of the Required Courses.

Students must obtain First Aid/Cardiopulmonary Resuscitation (CPR) certification by the completion of EUT215 Field Training II.

++ indicates any suffixed course may be selected.

Admission Criteria

Formal application and admission to the Electric Utility Technology program is required.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
EUT103	Introduction to Rigging	2	_____
EUT104	Equipment Safety and Operation	2	_____
EUT110	Line Work I	2	_____
EUT112	Basic Electricity: AC and DC	4	_____
EUT115	Field Training I	4	_____
EUT210	Line Work II	2	_____
EUT211	Electrical Apparatus	4	_____
EUT215	Field Training II	4	_____
Select one of the following:		3-6	_____
MAT120	Intermediate Algebra		_____
MAT121	Intermediate Algebra		_____
MAT122	Intermediate Algebra		_____
MAT126	Intermediate Algebra with Review		_____
PPT120	Energy Industry Fundamentals	3	_____
Total Credits		30-33	_____

Unmanned Aircraft Systems, Associate in Applied Science



**APPLIED
TECHNOLOGY**

Associate in Applied Science: AAS 3184

61-68 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cg.edu

Program Description

The Associate in Applied Science (AAS) in Unmanned Aircraft Systems (UAS) program prepares students for entry level positions in the UAS industry by providing foundational knowledge and skills in UAS mission planning, applications, maintenance, laws and regulations, data analytics, and project management using UAS platforms. Program content includes an introduction to UAS flight, history, avionics, sensors, communications systems and selectable paths including data analysis and applications

such as emergency responders, geographic information systems, precision agriculture, and in commercial and government sectors. Students will prepare for and conduct unmanned flights similar to those commonly performed in the industry observing Federal Aviation Administration's (FAA) regulations that govern sUAS operations. This program helps prepare students for the FAA Part 107 Certification.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in the Unmanned Aircraft Systems program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AET208	Aviation Safety	3	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
PHY111	General Physics I	4	_____
UAS100	sUAS Batteries and Electronics	5	_____
UAS101	Introduction to Unmanned Aircraft Systems Operation	3	_____
UAS107	Unmanned Aircraft Systems Operator Certification	3	_____
UAS205	sUAS Instruments and Autopilot Programming and Uses	3	_____
UAS206	sUAS Instrument and Autopilot Flight Lab	2	_____
UAS207	sUAS Dynamics and Design	5	_____
UAS208	sUAS Dynamics and Design Lab	2	_____
UAS211	sUAS Ground Control Stations, Telemetry, and Communications	3	_____

UAS212	sUAS Maintenance Lab	2	_____
UAS215	sUAS Commercial Flight Training	3	_____

General Education

Core

First-Year Composition

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

Oral Communication

Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____

Critical Reading

Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____
Or equivalent as indicated by assessment			_____

Mathematics

Select one of the following:		3-5	_____
MAT187	Precalculus		_____
Any approved General Education course in the Mathematical Applications (MA) area ¹			_____

Distribution

Humanities, Arts and Design

Any approved general education course(s) from the Humanities, Arts and Design area	3	_____
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Social and Behavioral Sciences

Any approved general education course(s) in the Social and Behavioral Sciences area	3	_____
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Natural Sciences

Any approved general education course(s) in the Natural Sciences area	4	_____
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Total Credits	61-68	_____
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¹ for which MAT187 Precalculus is a prerequisite

Unmanned Aircraft Systems, Certificate of Completion



**APPLIED
TECHNOLOGY**

Certificate of Completion: CCL 5982

34 Credits

Program Contact

Bashir Khalil | 480-988-8112 | bashir.khalil@cg.edu

Program Description

The Certificate of Completion (CCL) in Unmanned Aircraft Systems (UAS) program prepares students for entry level positions in the UAS industry by providing foundational knowledge and skills in UAS mission planning, applications, maintenance, laws and regulations, data analytics, and project management using UAS platforms. Program content includes an introduction to UAS flight, history, avionics, sensors, communications systems and selectable paths including data analysis and applications such as emergency responders, geographic information systems, precision agriculture, and in commercial and government sectors. Students will prepare for and conduct unmanned flights similar to those commonly performed in the industry observing Federal Aviation Administration's (FAA) regulations that govern UAS operations. This program helps prepare students for the FAA Part 107 Certification.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students wishing to enroll in the Unmanned Aircraft Systems program must complete an application process before being officially accepted into the program.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AET208	Aviation Safety	3	_____
UAS100	sUAS Batteries and Electronics	5	_____
UAS101	Introduction to Unmanned Aircraft Systems Operation	3	_____
UAS107	Unmanned Aircraft Systems Operator Certification	3	_____

UAS205	sUAS Instruments and Autopilot Programming and Uses	3	_____
UAS206	sUAS Instrument and Autopilot Flight Lab	2	_____
UAS207	sUAS Dynamics and Design	5	_____
UAS208	sUAS Dynamics and Design Lab	2	_____
UAS211	sUAS Ground Control Stations, Telemetry, and Communications	3	_____
UAS212	sUAS Maintenance Lab	2	_____
UAS215	sUAS Commercial Flight Training	3	_____
Total Credits		34	_____

Biological Sciences

- Sustainability, Academic Certificate (p. 107)

Sustainability, Academic Certificate



STEM

Academic Certificate: AC 6240N

15-18 Credits

Program Contact

Karen Wellner | 480-726-4111 | karen.wellner@cg.edu

Program Description

The Academic Certificate (AC) in Sustainability is interdisciplinary and builds a strong academic expertise within a student's desired focus area of Sustainability. The focus areas are established within and among the foundational pillars of Sustainability (social / environmental / economic).

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Code	Title	Credits	Semester
Required Courses			
SSH111	Sustainable Cities	3	_____

SUS110	Sustainable World	3	_____
Restricted Electives			
Select three focus area classes:		9-12	_____
ASM104	Bones, Stones, and Human Evolution		_____
BIO105	Environmental Biology		_____
CHM107 & 107LL	Chemistry and Society and Chemistry and Society Laboratory		_____
COM263	Elements of Intercultural Communication		_____
FON135	Sustainable Cooking		_____
ECN212	Microeconomic Principles		_____
EPS150	Introduction to Entrepreneurship		_____
ENV101	Introduction to Environmental Science		_____
GLG110 & GLG111	Geological Disasters and the Environment and Geological Disasters and the Environment Lab		_____
GPH113	Introduction to Physical Geography		_____
PHI216	Environmental Ethics		_____
PSY132	Psychology and Culture		_____
SBU200	Society and Business		_____
SUS100	Introduction to Sustainability		_____
SCT100	Introduction to Sustainable Built Environments		_____
Total Credits		15-18	_____

Business & Computing Studies Associate in Applied Science (AAS) Awards

- Accounting, Associate in Applied Science (p. 109)
- Administrative Professional, Associate in Applied Science (p. 111)
- Cybersecurity, Associate in Applied Science (p. 125)
- General Business, Associate in Applied Science (p. 130)

- Information Technology, Associate in Applied Science (p. 132)
- Network and Systems Administration, Associate in Applied Science (p. 146)
- Organizational Management, Associate in Applied Science (p. 151)
- Programming and Systems Analysis, Associate in Applied Science (p. 152)
- Web Design/Development, Associate in Applied Science (p. 162)

Certificate of Completion (CCL) Awards

- Accounting, Certificate of Completion (p. 110)
- Administrative Professional, Certificate of Completion (p. 112)
- Adobe Foundations: Animation and Graphics Production, Certificate of Completion (p. 113)
- Amazon Web Services Cloud Associate, Certificate of Completion (p. 113)
- Amazon Web Services Cloud Practitioner, Certificate of Completion (p. 114)
- Android App Development, Certificate of Completion (p. 114)
- Cisco Certified Network Professional: Enterprise Advanced Routing and Services, Certificate of Completion (p. 116)
- Cisco Certified Network Professional: Enterprise Core, Certificate of Completion (p. 117)
- Cisco Certified Network Professional: Enterprise, Certificate of Completion (p. 115)
- Cisco Network Administration and Security, Certificate of Completion (p. 118)
- Cisco Network Administration: CCNA, Certificate of Completion (p. 118)
- Cisco Network Administration: CCNP, Certificate of Completion (p. 119)
- Computer System Configuration and Support, Certificate of Completion (p. 120)
- Computer System Configuration and Support, Linux, Certificate of Completion (p. 121)
- Computer System Configuration and Support, Network, Certificate of Completion (p. 121)
- Computer System Configuration and Support, Security, Certificate of Completion (p. 122)
- Cyber Engineering, Certificate of Completion (p. 123)
- Cyber Operations, Certificate of Completion (p. 124)
- Cybersecurity Fundamentals, Certificate of Completion (p. 127)
- Desktop Support, Certificate of Completion (p. 128)
- Enrolled Agent, Certificate of Completion (p. 129)
- General Business, Certificate of Completion (p. 131)
- iOS App Development, Certificate of Completion (p. 142)
- Linux Associate, Certificate of Completion (p. 142)
- Linux System Administration, Certificate of Completion (p. 143)
- Microsoft Desktop Associate, Certificate of Completion (p. 143)
- Microsoft Office Professional, Certificate of Completion (p. 144)
- Microsoft Office Specialist, Certificate of Completion (p. 145)
- Microsoft System Administration, Certificate of Completion (p. 146)
- Oracle Database Operations, Certificate of Completion (p. 150)
- Organizational Leadership, Certificate of Completion (p. 151)

- Programming and Systems Analysis Level I, Certificate of Completion (p. 154)
- Programming and Systems Analysis Level II, Certificate of Completion (p. 155)
- Red Hat Linux Administrator, Certificate of Completion (p. 157)
- Red Hat Linux Engineer, Certificate of Completion (p. 157)
- Retail Management, Certificate of Completion (p. 158)
- Securities Industry Essentials, Certificate of Completion (p. 158)
- Small Business Start-Up, Certificate of Completion (p. 159)
- Social Media Marketing, Certificate of Completion (p. 159)
- VMware Network Administrator, Certificate of Completion (p. 160)
- Web App Development, Certificate of Completion (p. 161)
- Web Design, Certificate of Completion (p. 161)
- Web Development, Certificate of Completion (p. 164)
- Web Foundations, Certificate of Completion (p. 165)

Accounting, Associate in Applied Science



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Associate in Applied Science: AAS 3149

62-73 Credits

Program Contacts

Barbara Gonzalez | 602-243-8044 | barbara.gonzalez@cgcc.edu

Program Description

The Associate in Applied Science (AAS) in Accounting program is designed to provide fundamental skills for individuals planning to enter the field of accounting. Possible entry-level jobs for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, payroll clerk, credit clerk, bookkeeper, accounting intern, tax preparation or comparable positions. This program may prepare students for certification in Certified Bookkeeper (CB), Enrolled Agent (EA), and Certified Payroll Professional (CPP). Certificates of Completion (CCL) in Accounting and Enrolled Agent are available.

Program Notes

Students must earn a grade of "C" or better in all courses in the program. Overall program minimum GPA = 2.00.

Consultation with an academic advisor is recommended for course selection.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		6-9	

ACC111 & ACC230 & ACC240	Accounting Principles I and Uses of Accounting Information I and Uses of Accounting Information II		
ACC111 & ACC112 & ACC212	Accounting Principles I and Accounting Principles II and Managerial Accounting		
ACC211 & ACC212	Financial Accounting and Managerial Accounting		
ACC105 or ACC222	Payroll, Sales and Property Taxes Payroll Accounting	3	
ACC115	Computerized Accounting	3	
ACC121 or ACC221	Individual Tax Preparation Tax Accounting	3	
ACC219	Intermediate Accounting I	3	
CIS114DE	Excel Spreadsheet	3	
CIS105	Survey of Computer Information Systems	3	
FYE101 or FYE103	Introduction to College, Career and Personal Success Exploration of College, Career and Personal Success	1-3	
GBS151	Introduction to Business	3	
GBS205	Legal, Ethical, and Regulatory Issues in Business	3	
GBS120 or GBS233	Workplace Communication Skills Business Communication	3	
Restricted Electives			
Select six (6) credits from the following:		6	
ACC+++	Any ACC Accounting course(s) ¹		
GBS131	Business Calculations		

GBS220	Quantitative Methods in Business		
GBS221	Business Statistics		
GBS261	Investments I		
MGT101	Techniques of Supervision		
or MGT175	Business Organization and Management		
or MGT229	Management and Leadership I		
General Education			
<i>First-Year Composition</i>			
ENG101	First-Year Composition	3	
or ENG107	First-Year Composition for ESL		
ENG102	First-Year Composition	3	
or ENG108	First-Year Composition for ESL		
<i>Oral Communication</i>			
Select one of the following:		3	
COM100	Introduction to Human Communication		
COM110	Interpersonal Communication		
COM225	Public Speaking		
COM230	Small Group Communication		
<i>Critical Reading</i>			
Select one of the following:		0-3	
CRE101	College Critical Reading and Critical Thinking		
Equivalent by assessment			
<i>Mathematics</i>			
Any approved general education course from the Mathematics area		3-6	
Distribution			
<i>Humanities, Arts and Design</i>			
Any approved general education course(s) from the Humanities, Arts and Design area		3	
<i>Social and Behavioral Sciences</i>			
Select one of the following:		3	
ECN211	Macroeconomic Principles		
ECN212	Microeconomic Principles		
SBU200	Society and Business		
<i>Natural Sciences</i>			

Any approved general education course(s) in the Natural Sciences area 4

Total Credits 62-73

¹ Except ACC111 Accounting Principles I, ACC112 Accounting Principles II, ACC211 Financial Accounting, ACC212 Managerial Accounting, ACC230 Uses of Accounting Information I, ACC240 Uses of Accounting Information II

Accounting, Certificate of Completion



BUSINESS, ENTREPRENEURIALISM, AND MANAGEMENT

Certificate of Completion: CCL 5665

24-27 Credits

Program Contact

Barbara Gonzalez | 602-243-8044 | barbara.gonzalez@cgc.edu

Program Description

The Certificate of Completion (CCL) in Accounting program is designed for students seeking to gain skills and knowledge in the field of accounting and tax. Possible entry-level positions for this program include accounting clerk, accounts payable/receivable clerk, claims clerk, credit clerk, bookkeeper, accounting intern, or comparable positions. An Associate in Applied Science (AAS) in Accounting and a Certificate of Completion (CCL) in Enrolled Agent are also available.

Program Notes

Students must earn a grade of "C" or better in all courses in the program. Overall program minimum GPA = 2.00.

Consultation with an Academic Advisor is recommended for course selection.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		6-9	
ACC111 & ACC230 & ACC240	Accounting Principles I and Uses of Accounting Information I and Uses of Accounting Information II		

ACC111 & ACC112 & ACC212	Accounting Principles I and Accounting Principles II and Managerial Accounting		
ACC211 & ACC212	Financial Accounting and Managerial Accounting		
ACC105 or ACC222	Payroll, Sales and Property Taxes Payroll Accounting	3	
ACC121 or ACC221	Individual Tax Preparation Tax Accounting	3	
ACC115	Computerized Accounting	3	
CIS114DE	Excel Spreadsheet	3	
CIS105	Survey of Computer Information Systems	3	
GBS151	Introduction to Business	3	
Total Credits		24-27	

Administrative Professional, Associate in Applied Science



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Associate in Applied Science : AAS 3680

62-70 Credits

Program Contact

Lana Short | 480-732-7191 | lana.short@cgcc.edu

Program Description

The Associate in Applied Science (AAS) in the Administrative Professional degree is designed to provide training for various office positions. The curriculum incorporates people and technological skills essential for job success. Includes instruction in business communications, office procedures, public relations, accounting, records management, and report preparation. A Certificate of Completion (CCL) in Administrative Professional is also available.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
BPC110	Computer Usage and Applications	3	
or CIS105	Survey of Computer Information Systems		
ACC115	Computerized Accounting	3	
CIS113DE	Microsoft Word: Word Processing	3	
CIS114DE	Excel Spreadsheet	3	
FYE101	Introduction to College, Career and Personal Success	1-3	
or FYE103	Exploration of College, Career and Personal Success		
GBS120	Workplace Communication Skills	3	
GBS131	Business Calculations	3	
GBS151	Introduction to Business	3	
Select three of the following:		3	
BPC101AA	Introduction to Computers I		
BPC/ OASINSTRUCT/ TIME111AA	Computer (Keyboarding I		
CIS121AE	Windows Operating System: Level I		
CIS121AI	Mac Operating System		
CIS122AE	Windows Operating System: Level II		
CIS133AA	Internet/Web Development Level I-A		
Restricted Electives			
Select fifteen (15) credits from the following courses, except courses used to satisfy the Required Courses area, in consultation with a program advisor:		15	
ACC+++	Any ACC Accounting prefixed course ¹		
MGT251	Human Relations in Business		

MGT126	Customer Service Skills and Strategies	_____
CIS133DA	Internet/Web Development Level I	_____
CIS214DE	Advanced Excel Spreadsheet: Level II	_____
CIS103	Introduction to Social Media	_____
MKT110	Marketing and Social Networking	_____
CIS117DM	Microsoft Access: Database Management	_____
GBS205	Legal, Ethical, and Regulatory Issues in Business	_____
MKT271	Principles of Marketing	_____

General Education**Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL	_____	_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL	_____	_____

Oral Communication

Select one of the following:		3	_____
COM100	Introduction to Human Communication	_____	_____
COM110	Interpersonal Communication	_____	_____
COM225	Public Speaking	_____	_____
COM230	Small Group Communication	_____	_____

Critical Reading

Any approved general education course from the Critical Reading area or Equivalent as indicated by assessment	0-3	_____
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Mathematics

Any approved general education course(s) in the Mathematics area or Equivalent as indicated by assessment	3-6	_____
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Distribution

Humanities, Arts and Design _____

Any approved general education course(s) from the Humanities, Arts and Design area	3	_____	
<i>Social and Behavioral Sciences</i>			
SBU200	Society and Business	3	_____
<i>Natural Sciences</i>			
Any approved general education course(s) in the Natural Sciences area	4	_____	
Total Credits	62-70	_____	

¹ Except ACC115 Computerized Accounting

Administrative Professional, Certificate of Completion



Certificate of Completion: CCL 5677

18 Credits

Program Contact

Lana Short | 480-732-7191 | lana.short@cgcc.edu

Program Description

The Certificate of Completion (CCL) in the Administrative Professional program is designed to provide students with basic office skills. This program is recommended for students with little or no office-related work experience or college experience. Includes instruction in business communications, office procedures, and report preparation. An Associate in Applied Science (AAS) in Administrative Professional is available.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
BPC110	Computer Usage and Applications	3	_____
or CIS105	Survey of Computer Information Systems	_____	_____
CIS113DE	Microsoft Word: Word Processing	3	_____
GBS120	Workplace Communication Skills	3	_____
GBS131	Business Calculations	3	_____

GBS151	Introduction to Business	3	_____
Select three of the following:		3	_____
BPC101AA	Introduction to Computers I		_____
BPC/OASINSTRUCTOR TIME111AA	Computer Keyboarding I		_____
CIS121AE	Windows Operating System: Level I		_____
CIS121AI	Mac Operating System		_____
CIS122AE	Windows Operating System: Level II		_____
CIS133AA	Internet/Web Development Level I-A		_____
Total Credits		18	_____

Adobe Foundations: Animation and Graphics Production, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5167N

9 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cg.edu

Program Description

The Certificate of Completion (CCL) in Adobe Foundations: Animation and Graphics Production program helps prepare students to create, edit, and enhance digital images, graphics, and animation for use in web, print, and video. A Certificate of Completion in Adobe Foundations: Video and Audio Production and an Associate in Applied Science (AAS) in Web Design and Development are also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CIS120DB	Introduction to Adobe Illustrator	3	_____
CIS120DC	Introduction to Adobe Animate	3	_____
CIS120DF	Introduction to Adobe Photoshop	3	_____
Total Credits		9	_____

Amazon Web Services Cloud Associate, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5330N

3-6 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cg.edu

Program Description

The Certificate of Completion (CCL) in Amazon Web Services (AWS) Cloud Associate builds the knowledge and skills to design, plan, and implement a cloud solution architecture. Students will be introduced to concepts and hands-on opportunities to manage cloud systems/architectures for real world-applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the AWS Certified Solutions Architect – Associate examination, which is the second level of the AWS certifications.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: BPC, CIS, CLD, CNT, ITS, and MST.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	
CLD110	Amazon Web Services Cloud Foundations		
Certificate of Completion in Amazon Web Services Cloud Practitioner (5141N) ¹			
AWS Certified Cloud Practitioner certification badge			
Permission of Program Director			
CLD120	Amazon Web Services Cloud Architect Associate	3	
Total Credits		3-6	

¹ CCL/5141N is not eligible for Title IV Federal Financial Aid.

Amazon Web Services Cloud Practitioner, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5141N

3 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu
(scott.miller@cgc.edu)

Program Description

The Certificate of Completion (CCL) in Amazon Web Services Cloud Practitioner builds the practical knowledge and skills of cloud computing. Cloud computing provides reliable, scalable, secure, and flexible technology solutions for personal and business use. This CCL will introduce students new to or interested in cloud computing to the fundamental concepts of cloud services as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Amazon Web Services (AWS) Certified Cloud Practitioner exam, which is the first level of the AWS certification.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C⁺⁺ or better for all courses required within the program. Overall program minimum GPA = 2.00.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience such as database, Linux, information

security, networking, programming, and DevOps who are interested in expanding their knowledge in the area of cloud computing to enhance their employment opportunities. Speak to a program director for additional information.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CLD110	Amazon Web Services Cloud Foundations	3	
Total Credits		3	

Android App Development, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5834N

9-12 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgc.edu

Program Description

The Certificate of Completion (CCL) in Android App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on Android mobile apps. This CCL will help prepare students to take the Associate Android Developer industry certification. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificate of Completion (CCL) in Mobile App Development, and Certificate of Completion (CCL) in Native Mobile App Development.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

Students should consult with a Department Advisor in arranging their schedules.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Complete one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of Program Director, Department or Division Chair			
Select one of the following:		3	_____
CIS150	Programming Fundamentals ¹		_____
CIS150AB	Object-Oriented Programming Fundamentals ¹		_____
CIS156	Python Programming: Level I		_____
CIS159	Visual Basic Programming I		_____
CIS162AD	C#: Level I		_____
CIS163AA	Java Programming: Level I		_____
CIS165DA	Introduction to Android Application Development	3	_____
CIS265DA	Advanced Android Application Development	3	_____
Total Credits		9-12	_____

¹ Recommended for students with no programming experience or who plan to complete the AAS 3099 or CCL 5193 in Mobile App Development.

Cisco Certified Network Professional: Enterprise, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5190

16 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise builds the advanced knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes fundamental concepts of virtualization, network assurance, security, automation, and the implementation and troubleshooting of advanced routing technologies, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Cisco Enterprise Network Core Technologies (ENCOR) certification and Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) exams aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core, CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications.

Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise Core, Cisco Certified Network Professional: Enterprise Advanced Routing and Services, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes

The Certificate of Completion in Cisco Certified Network Professional: Enterprise is currently not Title IV Federal Financial Aid eligible.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Admission Criteria

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director:

Code	Title	Credits	Semester
CNT140AB	Introduction to Networks	4	_____
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____

CNT160AB	Enterprise Networking, Security, and Automation	4	_____
Total Credits		12	_____

Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		8	_____
CNT240	Cisco Certified Network Professional: Enterprise Core		_____
CNT240AA & CNT240AB	Cisco Certified Network Professional: Enterprise Core I and Cisco Certified Network Professional: Enterprise Core II		_____
Select one of the following:		8	_____
CNT250	Cisco Certified Network Professional: Enterprise Advanced Routing and Services		_____
CNT250AA & CNT250AB	Cisco Certified Network Professional: Enterprise Advanced Routing and Services I and Cisco Certified Network Professional: Enterprise Advanced Routing and Services II		_____
Total Credits		16	_____

Cisco Certified Network Professional: Enterprise Advanced Routing and Services, Certificate of Completion



Certificate of Completion: CCL 5187N
8 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Advanced Routing and Services builds the advanced knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes concepts of implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise Core, Cisco Certified Network Professional: Enterprise, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Admission Criteria

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified

Network Associate (CCNA) industry certification OR receive permission of the Program Director.

Code	Title	Credits	Semester
CNT140AB	Introduction to Networks	4	_____
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____
CNT160AB	Enterprise Networking, Security, and Automation	4	_____
Total Credits		12	_____

Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		8	_____
CNT250	Cisco Certified Network Professional: Enterprise Advanced Routing and Services		_____
CNT250AA & CNT250AB	Cisco Certified Network Professional: Enterprise Advanced Routing and Services I and Cisco Certified Network Professional: Enterprise Advanced Routing and Services II		_____
Total Credits		8	_____

Cisco Certified Network Professional: Enterprise Core, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5189N

8 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Cisco Certified Network Professional: Enterprise Core builds the knowledge and skills needed for professional-level networking technologies and architecture. This CCL includes the fundamental concepts of virtualization, network assurance, security, and automation, as well as hands-on opportunities to apply these concepts to real-world applications. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of information technology jobs. This CCL also helps to prepare students for the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications.

Additional Certificates of Completion (CCLs) in Cisco Certified Network Security (CCNA Security), Cisco Certified Network Professional: Enterprise, Cisco Certified Network Professional: Enterprise Core and Advanced Routing and Services, Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite skills aligned with the Cisco Certified Network Associate (CCNA) industry certification who are interested in expanding their knowledge in the area in professional-level networking or to enhance their employment opportunities. Speak to a program director for additional information.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Admission Criteria

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience. To pursue this CCL, students must complete the following prerequisites to the courses within the Required Course area as follows with a C or better OR have a Cisco Certified Network Associate (CCNA) industry certification OR receive permission of the Program Director.

Code	Title	Credits	Semester
CNT140AB	Introduction to Networks	4	_____
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____

CNT160AB	Enterprise Networking, Security, and Automation	4	_____
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Total Credits		12	_____
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Students also have the option to complete the full CCL in this program, Cisco Network Administration: CCNP (major code 5037), that includes the prerequisites and required courses.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		8	_____
CNT240	Cisco Certified Network Professional: Enterprise Core		_____
CNT240AA & CNT240AB	Cisco Certified Network Professional: Enterprise Core I and Cisco Certified Network Professional: Enterprise Core II		_____
Total Credits		8	_____

Cisco Network Administration and Security, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5036
16-19 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Cisco Network Administration and Security provides training for those interested in working with Cisco network and Internet hardware with a particular emphasis on securing networks from threats and vulnerabilities. Knowledge and skills are developed to install, configure, and maintain Cisco routers and switches; configure routing protocols, and Local Area Networks (LANs); troubleshoot problems with various hardware and software configurations; perform administrative tasks in a network. Specific skills in maintaining integrity, accountability, and confidentiality of data are also developed. Taught by Cisco Certified professionals using the Cisco Network Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) and Security examinations. Students who complete this program may seek employment in a variety of environments. An additional Certificate of

Completion (CCL) in Cisco Certified Network Professional (CCNP), as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes

Students must earn a grade of “C” or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Complete one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of the Program Director			_____
CNT140AB	Introduction to Networks	4	_____
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____
CNT160AB	Enterprise Networking, Security, and Automation	4	_____
CNT202	Cisco Secure Firewall Appliance Configuration	4	_____
or CNT205	Cisco Certified Network Associate Security		_____
Total Credits		16-19	_____

Cisco Network Administration: CCNA, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5969N**12-15 Credits****Program Contact**

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Cisco Network Administration: CCNA provides training for those interested in working with network and Internet hardware. Knowledge and skills are developed to install, configure, and maintain Cisco routers and switches; configure advanced routing protocols, and Local Area Networks (LANs); troubleshoot hardware and software configurations; perform administrative tasks in a network. Taught by Cisco Certified professionals using the Cisco Networking Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) examination. Students who complete this program may seek employment in a variety of environments. Additional Certificates of Completion (CCLs) in Cisco Network Administration and Security and Cisco Network Administration: CCNP, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

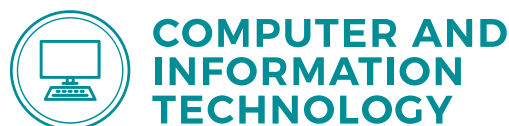
Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Complete one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of Program Director			
CNT140AB	Introduction to Networks	4	_____
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____

CNT160AB	Enterprise Networking, Security, and Automation	4	_____
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Total Credits	12-15	_____
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Cisco Network Administration: CCNP, Certificate of Completion

**Certificate of Completion: CCL 5037****28-31 Credits****Program Contact**

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Network Administration: Cisco Network Professional (CCNP) provides students with advanced knowledge and skills to install, configure, and maintain Cisco routers and switches; configure advanced routing protocols, Local Area Networks (LANs), and Wide Area Networks (WANs); troubleshoot complex hardware and software configurations; and perform administrative tasks in a network at the professional level. Taught by Cisco Certified professionals using the Cisco Network Academy program curriculum, courses are designed to help prepare students for the Cisco Certified Network Associate (CCNA) and Cisco Certified Network Professional Certifications (CCNP) examinations. Students who complete this program may seek employment in a variety of environments. An additional Certificate of Completion (CCL) in Cisco Network Administration and Security, as well as an Associate in Applied Science (AAS) in Network and Systems Administration, are also available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 as indicated in the required courses. Students with the requisite skills may have the CIS105 requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Complete one of the following:		0-3	_____

CIS105	Survey of Computer Information Systems		_____
Permission of program director _____			
CNT140AB	Introduction to Networks	4	_____
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____
CNT160AB	Enterprise Networking, Security, and Automation	4	_____
Select one of the following:		8	_____
CNT240	Cisco Certified Network Professional: Enterprise Core		_____
CNT240AA & CNT240AB	Cisco Certified Network Professional: Enterprise Core I and Cisco Certified Network Professional: Enterprise Core II		_____
Select one of the following:		8	_____
CNT250	Cisco Certified Network Professional: Enterprise Advanced Routing and Services		_____
CNT250AA & CNT250AB	Cisco Certified Network Professional: Enterprise Advanced Routing and Services I and Cisco Certified Network Professional: Enterprise Advanced Routing and Services II		_____
Total Credits		28-31	_____

Computer System Configuration and Support, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5038N

6-9 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Computer System Configuration and Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on hardware installation, maintenance, mobile devices, hardware troubleshooting, proper use of tools, safety procedures, and professionalism. This program helps prepare students for the CompTIA A+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Complete one of the following:		0-3	_____

CIS105	Survey of Computer Information Systems		
Permission of program director			
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	
Total Credits		6-9	

Computer System Configuration and Support, Linux, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5039N

9-12 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cg.edu

Program Description

The Certificate of Completion (CCL) in Computer System Configuration and Support, Linux program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on Linux. The classes focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on the Linux Operating system including knowledge and skills required to install, configure and troubleshoot a Linux-based workstation. This program helps prepare students for the CompTIA A+ and Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and

computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	
CIS105	Survey of Computer Information Systems		
Permission of program director			
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	
CIS126DL	Linux Operating System	3	
	or CIS126RH Red Hat System Administration I		
Total Credits		9-12	

Computer System Configuration and Support, Network, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5044N

9-13 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cg.edu

Program Description

The Certificate of Completion (CCL) in Computer System Configuration and Support, Network program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on networking. The courses focus on the development of knowledge and skills in computer and network technologies including system components, installation, system configuration, peripheral

devices, and notebooks. Emphasis is placed on elements of a data network, network components, and use of a network. This program helps prepare students for the CompTIA A+ and Network+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of program director			
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	_____
CIS190	Introduction to Networking	3-4	_____
	or CNT140AB Introduction to Networks		_____
Total Credits		9-13	_____

Computer System Configuration and Support, Security, Certificate of Completion



Certificate of Completion: CCL 5040N

9-19 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Computer System Configuration and Support, Security program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs with an emphasis on security. The courses focus on the development of knowledge and skills in computer and security technologies including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis is placed on preventing, identifying, and mitigating threats to the security of information systems and utilizing the basic tools for information security. This program helps prepare participants for the CompTIA A+, Security+, and certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	_____

CIS105	Survey of Computer Information Systems		
Permission of Program Director			
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	

Specializations

Select from one of the following areas of specialization: 3-10

Specialization 1 (3-6 Credits)

Select one of the following:

CIS270 Essentials of Network and Information Security

or ITS110 Information Security Fundamentals

& CIS126DL and Linux Operating System

or CIS126RH Red Hat System Administration I

Specialization 2 (9-10 Credits)

CNT140AB Introduction to Networks

or CIS190 Introduction to Networking

CIS250 Management of Information Systems

CIS271DB Information Security Essentials

Total Credits 9-19

Cyber Engineering, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5149

42-46 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cg.edu

Program Description

The Certificate of Completion (CCL) in Cyber Engineering program is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical,

legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cyber Engineering program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
The following courses are required and included in the CCL in Cybersecurity Fundamentals			
Select one of the following:		3	
BPC270	A+ Exam Prep: Operating System Configuration and Support		
MST150++	Any Microsoft Windows course		
CIS105	Survey of Computer Information Systems	3	
CIS111	Ethics in Information Technology	3	
or ITS120	Legal, Ethical and Regulatory Issues		
CIS126DL	Linux Operating System	3	
or CIS126RH	Red Hat System Administration I		
CIS156	Python Programming: Level I	3	
CIS190	Introduction to Networking	3-4	
or CNT140AB	Introduction to Networks		
Select one of the following options:		3-6	
Option 1			
CIS270	Essentials of Network and Information Security		

Option 2		
CIS271DB	Information Security Essentials	
CIS272DB	Information Security Principles	
Option 3		
ITS110	Information Security Fundamentals	
ITS240	Ethical Hacking and Network Defense	3
The following courses are required in the CCL in Cyber Engineering.		
Select one of the following:		3
CIS119DO	Introduction to Oracle: SQL	
CIS276++	Any SQL Database course	
CIS162++	Any C Programming: Level I course	3
CIS227	Assembly Language	3
CIS238DL	Linux System Administration	3
or CIS238RH	Red Hat System Administration II	
CIS250	Management of Information Systems	3
CIS262++	Any C Programming: Level II course	3
Total Credits		42-46

Cyber Operations, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5165

41-42 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cgc.edu

Program Description

The Certificate of Completion (CCL) in Cyber Operations program is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet

the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cyber Operations program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
The following courses are required and included in the CCL in Cybersecurity Fundamentals:			
Select one of the following:		3	
BPC270	A+ Exam Prep: Operating System Configuration and Support		
MST150++	Any Microsoft Windows course		
CIS105	Survey of Computer Information Systems	3	
CIS111	Ethics in Information Technology	3	
or ITS120	Legal, Ethical and Regulatory Issues		
CIS126DL	Linux Operating System	3	
or CIS126RH	Red Hat System Administration I		
CIS156	Python Programming: Level I	3	
CIS190	Introduction to Networking	3-4	
or CNT140AB	Introduction to Networks		
ITS110	Information Security Fundamentals	3	
ITS240	Ethical Hacking and Network Defense	3	

The following courses are required in the CCL in Cyber Operations:

BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	_____
CIS238DL	Linux System Administration	3	_____
or CIS238RH	Red Hat System Administration II		_____
CIS290AC	Computer Information Systems Internship	3	_____
or CIS298AC	Special Projects		_____
ITS291	Computer Forensics Foundations	4	_____
ITS292	Advanced Computer Forensics	4	_____
Total Credits		41-42	_____

Cybersecurity, Associate in Applied Science



COMPUTER AND INFORMATION TECHNOLOGY

Associate in Applied Science : AAS 3197

62-77 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cgcc.edu

Program Description

The Associate in Applied Science (AAS) in Cybersecurity is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to meet the training needs of government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. Certificates of Completion (CCLs) are also available in the following areas: Cybersecurity Fundamentals, Cyber Operations, Linux System Administration, Microsoft, Cisco Networking CCNA Security, Cyber Engineering, and Critical Infrastructure.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
MST150++	Any Microsoft Windows course 1		_____
CIS105	Survey of Computer Information Systems	3	_____
CIS111	Ethics in Information Technology	3	_____
or ITS120	Legal, Ethical and Regulatory Issues		_____
CIS126DL	Linux Operating System	3	_____
or CIS126RH	Red Hat System Administration I		_____
CIS156	Python Programming: Level I	3	_____
Select one of the following:		3-4	_____
CIS190	Introduction to Networking		_____
CNT140AB	Introduction to Networks ²		_____
Select one of the following:		3-6	_____
CIS271DB & CIS272DB	Information Security Essentials and Information Security Principles ³		_____
CIS270	Essentials of Network and Information Security		_____
ITS110	Information Security Fundamentals ⁴		_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
ITS240	Ethical Hacking and Network Defense	3	_____

Restricted Electives

Students must complete 12-18 credits from the following list of courses. Courses cannot be repeated for credit.

Courses that are required for a specialization in Cyber Operations, Linux System Administration, Microsoft System Administration, Cisco Network Administration and Security, Cyber Engineering, and/or Critical Infrastructure are noted.

Specialization I: Cyber Operations (17 Credits)

BPC170	A+ Exam Prep: Computer Hardware Configuration and Support
CIS238DL	Linux System Administration or CIS238RH Red Hat System Administration II
CIS290AC	Computer Information Systems Internship or CIS298AC Special Projects
ITS291	Computer Forensics Foundations
ITS292	Advanced Computer Forensics

Specialization II: Linux System Administration (15 Credits)

CIS238DL	Linux System Administration or CIS238RH Red Hat System Administration II
CIS239DL	Linux Shell Scripting
CIS240DL	Linux Network Administration
CIS271DL	Linux Security or CIS271RH Red Hat System Administration IV
CIS275DL	Linux Capstone

Specialization III: Cloud System Administration (15-16 Credits)

BPC274	Advanced Server Computer Maintenance: Server+ Prep
CIS121AH	Microsoft PowerShell/Command Line Operations
CIS239DL	Linux Shell Scripting

MST160	Azure Administrator
CLD110	Amazon Web Services Cloud Foundations
MST260	Microsoft Azure Cloud Development and Operations
CLD120	Amazon Web Services Cloud Architect Associate

Specialization IV: Cisco Network Administration and Security (12 Credits)

CNT150AB	Switching, Routing, and Wireless Essentials
CNT160AB	Enterprise Networking, Security, and Automation
CNT202	Cisco Secure Firewall Appliance Configuration or CNT205 Cisco Certified Network Associate Security

Specialization V: Cyber Engineering (18 Credits)

CIS162++	Any C Programming: Level I course ⁵
CIS227	Assembly Language
CIS238DL	Linux System Administration or CIS238RH Red Hat System Administration II
CIS250	Management of Information Systems
CIS262++	Any C Programming: Level II course
Select one of the following:	
CIS119DO	Introduction to Oracle: SQL
CIS276++	Any SQL Database course

Specialization VI: Critical Infrastructure (16 Credits)

CIS143	Introduction to Critical Infrastructure Protection
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CIS201	Introduction to Operational Technology	_____
CIS202	Introduction to Smart Grid Security	_____
CIS203	Principles of the Risk Management Framework	_____
CNT150AB	Switching, Routing, and Wireless Essentials	_____

General Electives

Select additional courses 100-level or higher to complete a minimum of 61-semester credits. It is recommended to select from the restricted elective options.⁶

General Education**Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL	_____	_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL	_____	_____

Oral Communication

Select one of the following:		3	_____
COM100	Introduction to Human Communication ⁷	_____	_____
COM110	Interpersonal Communication	_____	_____
COM225	Public Speaking	_____	_____
COM230	Small Group Communication	_____	_____

Critical Reading

Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking	_____	_____
Or equivalent as indicated by assessment		_____	_____

Mathematics

Any approved general education course(s) in the Mathematics area 3-6 _____

Distribution*Humanities, Arts and Design*

Any approved general education course(s) from the Humanities, Arts and Design area 3 _____

Social and Behavioral Sciences

Any approved general education course(s) in the Social and Behavioral Sciences area 3 _____

Natural Sciences

Any approved general education course(s) in the Natural Sciences area 4 _____

¹ MST150++ required for Microsoft System Administration specialization and Critical Infrastructure specialization

² CNT140AB Introduction to Networks required for Cisco Network Administration and Security specialization and Critical Infrastructure specialization

³ CIS271DB Information Security Essentials **and** CIS272DB Information Security Principles required for Critical Infrastructure specialization

⁴ ITS110 Information Security Fundamentals required for Cyber Operations specialization

⁵ Students intending to transfer to U of A South should take CIS162 C Programming I

⁶ Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.

⁷ COM100 Introduction to Human Communication required for students intending to transfer to ASU West to earn a Bachelor of Science in Applied Computing (Cybersecurity).

Cybersecurity Fundamentals, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5154

24-31 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cgc.edu

Program Description

The Certificate of Completion (CCL) in Cybersecurity Fundamentals is designed to focus on the necessary skills required to secure, protect and identify vulnerabilities in a network, including various operating systems and network devices. Emphasis is placed on developing the theoretical, legal, ethical and practical skills needed to maintain security on mission-critical networking and server systems. The program is designed to provide applied skills necessary for government and industry employees. The program covers a variety of information security technologies and structured languages. The Cybersecurity program also focuses on the skills needed for internationally recognized IT certifications and high demands in business, industry, and government. An Associate in Applied Science (AAS) in Cybersecurity is also available.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
MST150++	Any Microsoft Windows courses		_____
CIS105	Survey of Computer Information Systems	3	_____
CIS111	Ethics in Information Technology	3	_____
or ITS120	Legal, Ethical and Regulatory Issues		_____
CIS126DL	Linux Operating System	3	_____
or CIS126RH	Red Hat System Administration I		_____
CIS156	Python Programming: Level I	3	_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____
Select one of the following:		0-3	_____
CIS250	Management of Information Systems		_____
Only students taking CIS271DB would be required to take CIS250.			
Select one of the following:		3-6	_____
CIS270	Essentials of Network and Information Security		_____
CIS272DB & CIS271DB	Information Security Principles and Information Security Essentials ¹		_____
ITS110	Information Security Fundamentals		_____

ITS240	Ethical Hacking and Network Defense	3	_____
Total Credits		24-31	_____

Desktop Support, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5043

19-22 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Desktop Support program is designed to prepare students for entry-level computer maintenance, help desk, and network technician jobs. The classes focus on the development of knowledge and skills in computer, network, and security technologies, as well as the interpersonal skills in customer service/technical support needed to be successful within the industry. Depending on course selection, this program helps prepare students for the CompTIA A+, CompTIA Network+, and/or CompTIA Linux+ certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

Students must earn a grade of "C" or better in all courses in the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	_____

BPC270	A+ Exam Prep: Operating System Configuration and Support	3	_____
CIS102DA	Customer User Support	3	_____
CIS105	Survey of Computer Information Systems	3	_____
CIS126DL or CIS126RH	Linux Operating System Red Hat System Administration I	3	_____
Select one of the following:		3-4	_____
CIS190	Introduction to Networking		_____
CNT140AB	Introduction to Networks ¹		_____
Restricted Electives			
Select one to three credits from the following:		1-3	_____
BPC171	Recycling Used Computer Technology		_____
CIS290AA	Computer Information Systems Internship		_____
CIS290AB	Computer Information Systems Internship		_____
CIS290AC	Computer Information Systems Internship		_____
CIS296WB	Cooperative Education		_____
CIS296WC	Cooperative Education		_____
CIS298AA	Special Projects		_____
CIS298AB	Special Projects		_____
CIS298AC	Special Projects		_____
Total Credits		19-22	_____

¹ CNT140AB Introduction to Networks is recommended for students interested in pursuing their Cisco Network Administration Certification

Enrolled Agent, Certificate of Completion



BUSINESS, ENTREPRENEURIALISM, AND MANAGEMENT

Certificate of Completion: CCL 5958

17-18 Credits

Program Contact

Barbara Gonzalez | 602-243-8044 | barbara.gonzalez@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Enrolled Agent program helps to prepare students for the Enrolled Agent Examination. The Internal Revenue Service (IRS) Enrolled Agent credential allows tax practitioners to represent taxpayers before the IRS when it comes to collections, audits, and appeals. Enrolled Agents' expertise in the continually changing field of taxation enables them to effectively represent taxpayers at all administrative levels within the IRS. Students who successfully complete this CCL may also seek employment as tax preparers.

Program Notes

Students must earn a grade of "C" or better in all courses in the program. Overall program minimum GPA = 2.00.

Consultation with an Academic Advisor is recommended for course selection. The Volunteer Income Tax Assistance (VITA) program internship is only available in the spring semester- Contact a program adviser for more information.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
ACC111	Accounting Principles I	3	_____
or ACC211	Financial Accounting		_____
ACC121	Individual Tax Preparation	3	_____
ACC221	Tax Accounting	3	_____
ACC224	Tax Practice Administration and Business Entity Analysis	3	_____
CIS105	Survey of Computer Information Systems	3	_____
Restricted Electives			
Select two to three credits from the list below:		2-3	_____
ACC105	Payroll, Sales and Property Taxes		_____

ACC112	Accounting Principles II	_____
ACC115	Computerized Accounting	_____
ACC222	Payroll Accounting	_____
ACC230	Uses of Accounting Information I	_____
ACC270AB	Accounting Internship	_____
ACC270AC	Accounting Internship	_____
Total Credits		17-18

General Business, Associate in Applied Science



BUSINESS, ENTREPRENEURIALISM, AND MANAGEMENT

Associate in Applied Science: AAS 3148

62-69 Credits

Program Contact

Ann Lopez | 480-726-4179 | ann.lopez@cgc.edu

Program Description

The Associate in Applied Science (AAS) in General Business program is designed to meet the needs of students who wish a broad overview of business and desire not to enroll in a specialized curriculum in business. The program is designed to acquaint students with major subject areas of business, to improve the student's business vocabulary, and to provide students with an understanding of influencing factors in business decision making and activities. In addition, this program may aid a student in recognizing a specific business field to be pursued in future studies. A Certificate of Completion (CCL) is also available.

Program Notes

Students must earn a grade of "C" or better in all courses in the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
ACC111	Accounting Principles I	3	_____
CIS105	Survey of Computer Information Systems	3	_____

FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
GBS120	Workplace Communication Skills	3	_____
or GBS233	Business Communication		_____
GBS151	Introduction to Business	3	_____
GBS205	Legal, Ethical, and Regulatory Issues in Business	3	_____
MGT175	Business Organization and Management	3	_____
or MGT251	Human Relations in Business		_____
MKT271	Principles of Marketing	3	_____

Restricted Electives

Students should select eighteen credits from the following courses.

Any 100/200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area.

ACC+++	Any ACC Accounting course(s)	_____
CIS114DE	Excel Spreadsheet	_____
CIS117DM	Microsoft Access: Database Management	_____
CIS133DA	Internet/Web Development Level I	_____
EPS+++	Any EPS Entrepreneurial Studies course(s)	_____
GBS+++	Any GBS General Business course(s)	_____
IBS+++	Any IBS International Business course(s)	_____
MGT+++	Any MGT Management course(s)	_____
MKT+++	Any MKT Marketing course(s)	_____

REA+++	Any REA Real Estate course(s)	_____
SBS+++	Any SBS Small Business Management course(s)	_____
General Education		
Core		
<i>First-Year Composition</i>		
ENG101	First-Year Composition	3 _____
or ENG107	First-Year Composition for ESL	_____
ENG102	First-Year Composition	3 _____
or ENG108	First-Year Composition for ESL	_____
<i>Oral Communication</i>		
Select one of the following:		3 _____
COM100	Introduction to Human Communication	_____
COM110	Interpersonal Communication	_____
COM225	Public Speaking	_____
COM230	Small Group Communication	_____
<i>Critical Reading</i>		
Select one of the following:		0-3 _____
CRE101	College Critical Reading and Critical Thinking	_____
Or equivalent as indicated by assessment		_____
<i>Mathematics</i>		
Any approved general education course from the Mathematics area.		3-5 _____
Distribution		
<i>Humanities, Arts and Design</i>		
Any approved general education course in the Humanities, Arts and Design area		3 _____
<i>Social and Behavioral Sciences</i>		
Select one of the following:		3 _____
ECN211	Macroeconomic Principles	_____
ECN212	Microeconomic Principles	_____
SBU200	Society and Business	_____
<i>Natural Sciences</i>		
Any approved general education course in the Natural Sciences area		4 _____
Total Credits		62-69 _____

General Business, Certificate of Completion



BUSINESS, ENTREPRENEURIALISM, AND MANAGEMENT

Certificate of Completion: CCL 5683

21 Credits

Program Contact

Ann Lopez | 480-726-4179 | a (ann.lopez@cgcc.edu) nn.lopez@cgcc.edu (ann.lopez@cgcc.edu)

Program Description

The Certificate of Completion (CCL) in General Business is designed to provide business training for various entry-level positions in business. The courses include an introduction to business concepts, accounting and computer principles, and legal issues related to business. An Associate in Applied Science (AAS) is also available.

Program Notes

Students must earn a grade of "C" or better in all courses in the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
ACC111	Accounting Principles I	3	_____
CIS105	Survey of Computer Information Systems	3	_____
GBS151	Introduction to Business	3	_____
GBS205	Legal, Ethical, and Regulatory Issues in Business	3	_____
Restricted Electives			
Select nine credits from the following:		9	_____
Any 100/200 level prefixed courses may be selected, except courses used to satisfy the Required Courses area			
ACC+++	Any ACC Accounting courses(s)		_____
CIS114DE	Excel Spreadsheet		_____

CIS117DM	Microsoft Access: Database Management	_____
CIS133DA	Internet/Web Development Level I	_____
EPS+++	Any EPS Entrepreneurial Studies course(s)	_____
GBS+++	Any GBS General Business course(s)	_____
MGT+++	Any MGT Management course(s)	_____
MKT+++	Any MKT Marketing course(s)	_____
IBS+++	Any IBS International Business course(s)	_____
REA+++	Any REA Real Estate course(s)	_____
SBS+++	Any SBS Small Business Management course(s)	_____
Total Credits	21	_____

Information Technology, Associate in Applied Science



COMPUTER AND INFORMATION TECHNOLOGY

Associate in Applied Science: AAS 3196

61-68 Credits

Program Contacts

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Information Technology (IT) program is designed to provide students with skills to meet information technology needs across industries. This program includes instruction in the principles of computer hardware components and business software, programming, databases, networking, customer service, web development, and information systems and project management. Coursework helps prepare students for a variety of industry-recognized examinations and certifications. Students will earn one or more of the following Certificates of Completion (CCLs):

- CCL/5154 Cybersecurity Fundamentals
- CCL/5083 Database Development
- CCL/5043 Desktop Support

- CCL/5793 Foundations of Mobile App Development
- CCL/5132 Microsoft Office Professional
- CCL/5031 Microsoft System Administration
- CCL/5048 Programming and Systems Analysis Level I
- CCL/5183N Oracle Database Operations
- CCL/5050N Red Hat Linux Engineer
- CCL/5984 Web Foundations

Program Notes

CCL 5183N, and 5050N are not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Required Courses: 33-41 Credits

Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.

Code	Title	Credits	Semester
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____

Specialization 1: Cybersecurity Fundamentals

Credits: 33-38

Code	Title	Credits	Semester
Information Technology Core			
Select one of the following:		3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
MST150++	Any Microsoft Windows course		_____
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
CIS117DM	Microsoft Access: Database Management		_____

CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
CIS126DL	Linux Operating System	3	_____
or CIS126RH	Red Hat System Administration I		_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS156	Python Programming: Level I	3	_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____
Select one of the following:		3	_____
CIS224	Project Management Microsoft Project for Windows		_____
CIS250	Management of Information Systems ¹		_____
Cybersecurity Fundamentals			
CIS111	Ethics in Information Technology	3	_____
or ITS120	Legal, Ethical and Regulatory Issues		_____
CIS270	Essentials of Network and Information Security	3-6	_____
or CIS271DB & CIS272DB	Information Security Essentials and Information Security Principles		_____
or ITS110	Information Security Fundamentals		_____
ITS240	Ethical Hacking and Network Defense	3	_____
Related Area Credits			
Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:		0-5	_____
BPC+++++	Any BPC Business-Personal Computers courses		_____
CIS+++++	Any CIS Computer Information Systems courses		_____

CLD+++++	Any CLD Cloud Computing courses		_____
CNT+++++	Any CNT Cisco Network Technology courses		_____
ITS+++++	Any ITS Information Technology Security courses		_____
MST+++++	Any MST Microsoft Technology courses		_____

¹ Students taking CIS271DB Information Security Essentials would be required to take CIS250 Management of Information Systems.

Specialization 2: Database Development

Credits: 36-38

Code	Title	Credits	Semester
Information Technology Core			
Select one of the following:		3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____
MST150++	Microsoft Windows		_____
CIS105	Survey of Computer Information Systems	3	_____
CIS119DO	Introduction to Oracle: SQL	3	_____
CIS133DA	Internet/Web Development Level I	3	_____
Select one of the following:		3	_____
CIS156	Python Programming: Level I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____

CIS224	Project Management Microsoft Project for Windows	3	_____
or CIS250	Management of Information Systems		_____
Database Development			
CIS117DM	Microsoft Access: Database Management	3	_____
or CIS154	Database Modeling and Design		_____
CIS150++	Programming Fundamentals	3	_____
Select one of the following:		3	_____
CIS164AB	Oracle: PL/SQL Programming		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
CIS217AM	Advanced Microsoft Access: Database Management	3	_____
or CIS276DB	SQL Server Database		_____
CIS225AB	Object-Oriented Analysis and Design	3	_____
Related Area Credits			
Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:		0-2	_____
BPC+++++	Any BPC Business-Personal Computers courses		_____
CIS+++++	Any CIS Computer Information Systems courses		_____
CLD+++++	Any CLD Cloud Computing courses		_____
CNT+++++	Any CNT Cisco Network Technology courses		_____
ITS+++++	Any ITS Information Technology Security courses		_____

MST+++++	Any MST Microsoft Technology courses		_____
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Specialization 3: Desktop Support

Credits: 32-38

Code	Title	Credits	Semester
Information Technology Core			
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	_____
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
CIS117DM	Microsoft Access: Database Management		_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
CIS126DL	Linux Operating System	3	_____
or CIS126RH	Red Hat System Administration I		_____
CIS133DA	Internet/Web Development Level I	3	_____
Select one of the following:		3	_____
CIS150AB	Object-Oriented Programming Fundamentals		_____
CIS156	Python Programming: Level I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____
CIS224	Project Management Microsoft Project for Windows	3	_____
or CIS250	Management of Information Systems		_____
Desktop Support			

BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	_____
CIS102DA	Customer User Support	3	_____
Related Area Credits			
Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:		2-8	_____
BPC+++++	Any BPC Business-Personal Computers courses		_____
CIS+++++	Any CIS Computer Information Systems courses		_____
CLD+++++	Any CLD Cloud Computing courses		_____
CNT+++++	Any CNT Cisco Network Technology courses		_____
ITS+++++	Any ITS Information Technology Security courses		_____
MST+++++	Any MST Microsoft Technology courses		_____

Specialization 4: Foundations of Mobile App Development

Credits: 33-38

Code	Title	Credits	Semester
Information Technology Core			
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____

MST150++	Microsoft Windows		_____
Select one of the following:		3	_____
CIS117DM	Microsoft Access: Database Management		_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS162++	Any C Programming: Level I course	3	_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____
CIS224	Project Management Microsoft Project for Windows	3	_____
or CIS250	Management of Information Systems		_____

Foundations of Mobile App Development

CIS120DF	Introduction to Adobe Photoshop	3	_____
CIS165	Introduction to IOS Application Development	3	_____
CIS165DA	Introduction to Android Application Development	3	_____
CIS165DB	C#/VB.NET: Windows 8 App Development	3	_____
or CIS165DC	Xamarin/C# Cross-Platform Development		_____

Related Area Credits

Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:		0-5	_____
BPC+++++	Any BPC Business-Personal Computers courses		_____

CIS+++++	Any CIS Computer Information Systems courses	_____
CLD+++++	Any CLD Cloud Computing courses	_____
CNT+++++	Any CNT Cisco Network Technology courses	_____
ITS+++++	Any ITS Information Technology Security courses	_____
MST+++++	Any MST Microsoft Technology courses	_____

BPC270	A+ Exam Prep: Operating System Configuration and Support	_____
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Microsoft Office Professional _____

Select one of the following: 0-1 _____

BPC/OASINSTRUCT/TIME11AA	Computer Keyboarding I	_____
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or Permission from Program Director _____

CIS113DE	Microsoft Word: Word Processing	3 _____
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CIS114DE	Excel Spreadsheet	3 _____
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CIS118DB	Desktop Presentation: PowerPoint	3 _____
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CIS124AA & CIS124BA	Project Management Software: Level I and Project Management Software: Level II	2-3 _____
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or CIS224 Project Management Microsoft Project for Windows _____

Related Area Credits _____

Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology: 0-8 _____

BPC+++++	Any BPC Business-Personal Computers courses	_____
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CIS+++++	Any CIS Computer Information Systems courses	_____
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CLD+++++	Any CLD Cloud Computing courses	_____
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CNT+++++	Any CNT Cisco Network Technology courses	_____
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ITS+++++	Any ITS Information Technology Security courses	_____
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MST+++++	Any MST Microsoft Technology courses	_____
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Specialization 5: Microsoft Office Professional

Credits: 31-38

Code	Title	Credits	Semester
Information Technology Core			
CIS105	Survey of Computer Information Systems	3	_____
CIS117DM	Microsoft Access: Database Management	3	_____
CIS133DA	Internet/Web Development Level I	3	_____
Select one of the following:		3	_____
CIS150AB	Object-Oriented Programming Fundamentals		_____
CIS156	Python Programming: Level I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____
Select one of the following:		3	_____
MST150++	Microsoft Windows		_____

Specialization 6: Microsoft Server

Credits: 36-38

Code	Title	Credits	Semester
Information Technology Core			
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
CIS117DM	Microsoft Access: Database Management		_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
CIS133DA	Internet/Web Development Level I	3	_____
Select one of the following:		3	_____
CIS150AB	Object-Oriented Programming Fundamentals		_____
CIS156	Python Programming: Level I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____
CIS224	Project Management Microsoft Project for Windows	3	_____
or CIS250	Management of Information Systems		_____
MST150++	Microsoft Windows	3	_____
Microsoft Server			
CIS121AH	Microsoft PowerShell/Command Line Operations	3	_____
MST155DC	Installation, Storage, and Compute with Windows Server	4	_____
MST157DC	Networking with Windows Server	4	_____

MST158DC	Identity Management with Windows Server 2016	4	_____
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Related Area Credits

Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:	0-2	_____
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BPC+++++	Any BPC Business-Personal Computers courses	_____
CIS+++++	Any CIS Computer Information Systems courses	_____
CLD+++++	Any CLD Cloud Computing courses	_____
CNT+++++	Any CNT Cisco Network Technology courses	_____
ITS+++++	Any ITS Information Technology Security courses	_____
MST+++++	Any MST Microsoft Technology courses	_____

Specialization 7: Oracle Database Operations

Credits: 32-38

Code	Title	Credits	Semester
Information Technology Core			
Select one of the following:		3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____
MST150++	Microsoft Windows		_____
CIS105	Survey of Computer Information Systems	3	_____
CIS119DO	Introduction to Oracle: SQL	3	_____

CIS133DA	Internet/Web Development Level I	3	_____
Select one of the following:		3	_____
CIS150AB	Object-Oriented Programming Fundamentals		_____
CIS156	Python Programming: Level I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS190	Introduction to Networking	3-4	_____
	or CNT140AB Introduction to Networks		_____
CIS224	Project Management Microsoft Project for Windows	3	_____
	or CIS250 Management of Information Systems		_____
Oracle Database Operations			
CIS119DP	Oracle: Database Administration	3	_____
CIS154	Database Modeling and Design	3	_____
CIS164AB	Oracle: PL/SQL Programming	3	_____
Related Area Credits			
Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:		2-8	_____
BPC+++++	Any BPC Business-Personal Computers courses		_____
CIS+++++	Any CIS Computer Information Systems courses		_____
CLD+++++	Any CLD Cloud Computing courses		_____
CNT+++++	Any CNT Cisco Network Technology courses		_____

ITS+++++	Any ITS Information Technology Security courses		_____
MST+++++	Any MST Microsoft Technology courses		_____

Specialization 8: Programming and Systems Analysis Level 1

Credits: 32-38

Code	Title	Credits	Semester
Information Technology Core			
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
Select one of the following:		3	_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____
MST150++	Microsoft Windows		_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS150AB	Object-Oriented Programming Fundamentals	3	_____
CIS190	Introduction to Networking	3-4	_____
	or CNT140AB Introduction to Networks		_____
CIS224	Project Management Microsoft Project for Windows	3	_____
	or CIS250 Management of Information Systems		_____
Programming and Systems Analysis			
Select one of the following:		3	_____
CIS159	Visual Basic Programming I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____

CIS165++	Any Mobile Application Development course		
CIS166++	Any Web Scripting course	3	
GBS151	Introduction to Business	3	
Related Area Credits			
Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:		1-8	
BPC+++++	Any BPC Business-Personal Computers courses		
CIS+++++	Any CIS Computer Information Systems courses		
CLD+++++	Any CLD Cloud Computing courses		
CNT+++++	Any CNT Cisco Network Technology courses		
ITS+++++	Any ITS Information Technology Security courses		
MST+++++	Any MST Microsoft Technology courses		

Specialization 9: Redhat Linux Engineer

Credits: 32-38

Code	Title	Credits	Semester
Information Technology Core			
CIS105	Survey of Computer Information Systems	3	
Select one of the following:		3	
CIS117DM	Microsoft Access: Database Management		
CIS119DO	Introduction to Oracle: SQL		
CIS276DA	MySQL Database		
CIS276DB	SQL Server Database		

CIS126RH	Red Hat System Administration I	3	
CIS133DA	Internet/Web Development Level I	3	
Select one of the following:		3	
CIS150AB	Object-Oriented Programming Fundamentals		
CIS156	Python Programming: Level I		
CIS162++	Any C Programming: Level I course		
CIS163AA	Java Programming: Level I		
CIS190	Introduction to Networking	3-4	
or CNT140AB	Introduction to Networks		
CIS224	Project Management Microsoft Project for Windows	3	
or CIS250	Management of Information Systems		

Redhat Linux Engineer

CIS238RH	Red Hat System Administration II	3	
CIS240RH	Red Hat System Administration III	3	

Related Area Credits

Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:		5-11	
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BPC+++++	Any BPC Business-Personal Computers courses		
CIS+++++	Any CIS Computer Information Systems courses		
CLD+++++	Any CLD Cloud Computing courses		
CNT+++++	Any CNT Cisco Network Technology courses		
ITS+++++	Any ITS Information Technology Security courses		

MST+++++	Any MST Microsoft Technology courses	_____
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Specialization 10: Web Foundations

Credits: 36-38

Code	Title	Credits	Semester
Information Technology Core			
Select one of the following:		3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____
MST150++	Microsoft Windows		_____
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
CIS117DM	Microsoft Access: Database Management		_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
CIS133DA	Internet/Web Development Level I	3	_____
Select one of the following:		3	_____
CIS150AB	Object-Oriented Programming Fundamentals		_____
CIS156	Python Programming: Level I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS190	Introduction to Networking	3-4	_____
or CNT140AB	Introduction to Networks		_____

CIS224	Project Management Microsoft Project for Windows	3	_____
or CIS250	Management of Information Systems		_____

Web Foundation

CIS120DF	Introduction to Adobe Photoshop	3	_____
CIS136	Content Management Systems: WordPress	3	_____
CIS166AA	Introduction to Javascript	3	_____
CIS233DA	Internet/Web Development Level II	3	_____
CIS235	E-Commerce	3	_____

Related Area Credits

Select courses with one of the following prefixes to complete a minimum of 60 credits for the Associate in Applied Science (AAS) in Information Technology:	0-2	_____
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BPC+++++	Any BPC Business- Personal Computers courses		_____
CIS+++++	Any CIS Computer Information Systems courses		_____
CLD+++++	Any CLD Cloud Computing courses		_____
CNT+++++	Any CNT Cisco Network Technology courses		_____
ITS+++++	Any ITS Information Technology Security courses		_____
MST+++++	Any MST Microsoft Technology courses		_____

Specialization 11: A Related Certificate of Completion (CCL) At the Discretion of the Program Director

Credits: 32-33

A related Certificate of Completion (CCL) at the discretion of the Program Director (minimum of 11 credits) AND the following core courses with permission of the Program Director.

Code	Title	Credits	Semester
Information Technology Core			
CIS105	Survey of Computer Information Systems	3	
Select one of the following:		3	
CIS117DM	Microsoft Access: Database Management		
CIS119DO	Introduction to Oracle: SQL		
CIS276DA	MySQL Database		
CIS276DB	SQL Server Database		
Select one of the following:		3	
BPC270	A+ Exam Prep: Operating System Configuration and Support		
CIS126DL	Linux Operating System		
CIS126RH	Red Hat System Administration I		
MST150++	Microsoft Windows		
Select one of the following:		3	
CIS150AB	Object-Oriented Programming Fundamentals		
CIS156	Python Programming: Level I		
CIS162++	Any C Programming: Level I course		
CIS163AA	Java Programming: Level I		
CIS190	Introduction to Networking	3-4	
or CNT140AB	Introduction to Networks		
CIS133DA	Internet/Web Development Level I	3	
CIS224	Project Management Microsoft Project for Windows	3	
or CIS250	Management of Information Systems		

General Education

Code	Title	Credits	Semester
General Education			
Core			
<i>First-Year Composition</i>			
ENG101	First-Year Composition	3	
or ENG107	First-Year Composition for ESL		
ENG102	First-Year Composition	3	
or ENG108	First-Year Composition for ESL		
<i>Oral Communication</i>			
Select one of the following:		3	
COM100	Introduction to Human Communication		
COM110	Interpersonal Communication		
COM225	Public Speaking		
COM230	Small Group Communication		
<i>Critical Reading</i>			
Select one of the following:		0-3	
CRE101	College Critical Reading and Critical Thinking		
Or equivalent as indicated by assessment			
<i>Mathematics</i>			
Select one of the following:		3-6	
MAT140	College Mathematics		
MAT141	College Mathematics		
MAT142	College Mathematics		
MAT145	College Mathematics with Review		
MAT146	College Mathematics with Review		
Equivalent or higher level mathematics course in the Mathematical Applications (MA) area			
Distribution			
<i>Humanities, Arts and Design</i>			
Any approved general education course(s) from the Humanities, Arts and Design (HU) area		3	
<i>Social and Behavioral Sciences</i>			
Any approved general education course from the Social and Behavioral Sciences (SB) area		3	
<i>Natural Sciences</i>			

Any approved general education course from the Natural Science (SG) or (SQ) area	4	_____
Total Credits	22-28	_____

iOS App Development, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5914N

9-12 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgc.edu

Program Description

The Certificate of Completion (CCL) in iOS App Development prepares students for positions in app development for the Apple iPad, iPhone, and Apple Watch series. The program emphasizes knowledge and skills required to design, develop, test, and document structured and object-oriented programs utilizing Swift and Xcode. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCLs) in Native App Development and Mobile App Development.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems	_____	_____
Permission of Program Director, Department or Division Chair		_____	_____
CIS150AB	Object-Oriented Programming Fundamentals	3	_____
CIS165	Introduction to IOS Application Development	3	_____

CIS265	Advanced iOS Application Development	3	_____
Total Credits		9-12	_____

Linux Associate, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5046N

6-9 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cgc.edu

Program Description

The Certificate of Completion (CCL) in Linux Associate program is designed to help prepare students for employment or to improve current professional skills. The program includes Linux operating system basics and management including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. This program helps prepare students for the Linux Professional Institute Certification (LPIC-1) and CompTIA Linux + certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Complete one of the following:		0-3	
CIS105	Survey of Computer Information Systems		
Permission of program director			
CIS126DL	Linux Operating System	3	
CIS238DL	Linux System Administration	3	
Total Credits		6-9	

Linux System Administration, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5052N

15-18 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cg.edu

Program Description

The Certificate of Completion (CCL) in Linux System Administration program is designed to help prepare students for a variety of industry-recognized Linux certification exams as well as provide practical hands-on skills for the workplace. The program includes a core of Linux classes including Linux operating system basics, system administration, network administration and network security. The courses in the program will help develop a student's knowledge and skill level in preparation for employment or to improve current professional skills. Students who complete this program may seek employment in a variety of environments. The program helps prepare students for the Red Hat Certified System Administrator (RHCSA), Red Hat Certified Engineer (RHCE), and CompTIA Linux+ certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	
CIS105	Survey of Computer Information Systems		
Permission of program director			
Tracks			
Select from one of the following two tracks:		15	
<i>Linux Track</i>			
CIS126DL	Linux Operating System		
CIS238DL	Linux System Administration		
CIS239DL	Linux Shell Scripting		
CIS240DL	Linux Network Administration		
CIS275DL	Linux Capstone		
<i>Red Hat Enterprise Linux Track</i>			
CIS126RH	Red Hat System Administration I		
CIS238RH	Red Hat System Administration II		
CIS239DL	Linux Shell Scripting		
CIS240RH	Red Hat System Administration III		
CIS275DL	Linux Capstone		
Total Credits		15-18	

Microsoft Desktop Associate, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5030N

3 Credits

Program Contact

Ann Lopez | 480-726-4179 | ann.lopez@cg.edu

Program Description

The Certificate of Completion (CCL) in Microsoft Desktop Associate program is designed to provide students with background knowledge and skills required for learning the specific tasks and industry recognized standards associated with how to effectively install and configure

Windows operating systems. The course includes basic features of the Windows operating system, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. It is designed to prepare students for the Microsoft 365 Certified: Modern Desktop Administrator Associate certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification exams. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students are encouraged, but not required, to complete CIS105 Survey of Computer Information Systems, or CIS190 Introduction to Networking, or CNT140AB Introduction to Networks prior to beginning this CCL. Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
MST150WT	Installing and Configuring Microsoft Windows 10	3	_____
Total Credits		3	_____

Microsoft Office Professional, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5132

16-22 Credits

Program Contact

Lana Short | 480-732-7191 | lana.short@cg.edu

Program Description

The Certificate of Completion (CCL) in Microsoft Office Professional emphasizes training on word processing, spreadsheet, database, and presentation software for business purposes. This certificate provides

students with the knowledge and skills requisite of various business settings. This certificate helps with initial preparation for the Microsoft examinations for certification as a Microsoft Office Specialist (MOS). This certificate embeds into the Associate in Applied Science (AAS) degree in Information Technology and Certificate of Complete (CCL) in Microsoft Office Specialist.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-1	_____
BPC/OASINSTRUCTION/TIME111AA	Computer Keyboarding I		_____
Permission of Program Director			
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of Program Director			
CIS113DE	Microsoft Word: Word Processing	3	_____
CIS114DE	Excel Spreadsheet	3	_____
CIS117DM	Microsoft Access: Database Management	3	_____
CIS118DB	Desktop Presentation: PowerPoint	3	_____
Select one of the following:		2-3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
CIS121AE & CIS122AE	Windows Operating System: Level I and Windows Operating System: Level II		_____
MST150++	Microsoft Windows		_____

Select one of the following:		2-3	_____
CIS124AA & CIS124BA	Project Management Software: Level I and Project Management Software: Level II		_____
CIS224	Project Management Microsoft Project for Windows		_____
Total Credits		16-22	_____

Microsoft Office Specialist, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5137

25-31 Credits

Program Contact

Lana Short | 480-732-7191 | lana.short@cgc.edu

Program Description

The Certificate of Completion (CCL) in Microsoft Office Specialist emphasizes advanced training on word processing, spreadsheet, and database software for business purposes. This certificate builds upon the knowledge and skills gained by the CCL in Microsoft Office Professional for use in various business settings. This certificate helps prepare students for the Microsoft Office Specialist (MOS) certification examinations. This certificate embeds into the Associate in Applied Science (AAS) degree in Information Technology.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
The following courses are required and included in Microsoft Office Professional CCL			
Select one of the following:		0-1	_____
BPC/ OASINSTRUCTI TIME111AA	Computer Keyboarding I		_____

Permission of Program Director			_____
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of Program Director			_____
CIS113DE	Microsoft Word: Word Processing	3	_____
CIS114DE	Excel Spreadsheet	3	_____
CIS117DM	Microsoft Access: Database Management	3	_____
CIS118DB	Desktop Presentation: PowerPoint	3	_____
Select one of the following:		2-3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support		_____
CIS121AE & CIS122AE	Windows Operating System: Level I and Windows Operating System: Level II		_____
MST150++	Microsoft Windows		_____
Select one of the following:		2-3	_____
CIS124AA & CIS124BA	Project Management Software: Level I and Project Management Software: Level II		_____
CIS224	Project Management Microsoft Project for Windows		_____
The following courses are required in Microsoft Office Specialist CCL.			
CIS213DE	Advanced Microsoft Word: Word Processing	3	_____
CIS214DE	Advanced Excel Spreadsheet: Level II	3	_____
CIS217AM	Advanced Microsoft Access: Database Management	3	_____
Total Credits		25-31	_____

Microsoft System Administration, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5031

18-21 Credits

Program Contact

Scott Miller | 480-857-5536 | scott.miller@cgc.edu

Program Description

The Certificate of Completion (CCL) in Microsoft System Administration program is designed to provide students with background knowledge and skills required for learning the specific tasks and industry recognized standards associated with computer networks and data communications. The program includes a core of Microsoft courses to develop professionals who implement, manage, and troubleshoot existing network and system environments based on current Microsoft operating systems including active directory, messaging services, file and print servers, and firewalls. The courses in the program are also designed to help prepare students for the Microsoft 365 Certified: Modern Desktop Administrator Associate and Microsoft Certified Solutions Associate (MCSA) - Windows Server 2016 certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	

CIS105	Survey of Computer Information Systems		
OR may be waived by permission of the Program Director			
CIS121AH	Microsoft PowerShell/Command Line Operations	3	
MST150++	Any Microsoft Windows course	3	
MST155DC	Installation, Storage, and Compute with Windows Server	4	
MST157DC	Networking with Windows Server	4	
MST158DB	Installing and Configuring Windows Server	4	
Total Credits		18-21	

Network and Systems Administration, Associate in Applied Science



COMPUTER AND INFORMATION TECHNOLOGY

Associate in Applied Science: AAS 3189

61-74 Credits

Program Contact

Scott Miller | 480-726-4131 | scott.miller@cgc.edu (scott.miller@cgc.edu)

Program Description

The Associate in Applied Science (AAS) in Network and Systems Administration program provides students with a solid, hands-on skill set of computer, networking, and internetworking systems technology principles and desktop support. Students gain an understanding of the interaction between microcomputer software and hardware, network and internetworking operating systems software and hardware, local area network administration and management, the use of troubleshooting techniques, troubleshooting hardware and software tools, as well as interpersonal/customer service skills. Students have the opportunity to specialize in specific information technology areas based on their interests and professional goals and leading to industry recognized certifications through an embedded Certificate of Completion (CCL) including, but not limited to, Desktop (Desktop Support, Computer System Configuration and Support, Computer System Configuration and Support, Network, Computer System Configuration and Support, Security, Computer System Configuration and Support, Linux), Cisco (Cisco Network CCNA, Cisco Network CCNP, Cisco Network CCNA Security), Linux (Red Hat Linux Engineer, Linux Associate, Red Hat Linux Administrator, Linux System Administration), Microsoft (Microsoft

System Administration, Microsoft Desktop Associate), and VMware (VMware Network Administrator, VMware Foundations, VMware System Administrator). Graduates may pursue employment in a variety of information technology environments and/or transfer to a university.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

Students may receive credit for courses within the program based on current industry certifications.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Required Courses

Code	Title	Credits	Semester
Required Courses			
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	_____
CIS102DA	Customer User Support	3	_____
CIS105	Survey of Computer Information Systems	3	_____
CIS126DL or CIS126RH	Linux Operating System Red Hat System Administration I	3	_____
Select one of the following:		3-4	_____
CIS190	Introduction to Networking		_____
CNT140AB	Introduction to Networks ¹		_____
FYE101 or FYE103	Introduction to College, Career and Personal Success Exploration of College, Career and Personal Success	1-3	_____
Total Credits		19-22	_____

¹ CNT140AB Introduction to Networks is required for students on the Cisco emphasis

Specializations

12-24 Credits

Students must also select from one of the following areas of emphasis based on their career goals.

Specialization 1: Cisco System Administration (CCNA) and Security

Code	Title	Credits	Semester
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____
CNT160AB	Enterprise Networking, Security, and Automation	4	_____
CNT202 or CNT205	Cisco Secure Firewall Appliance Configuration Cisco Certified Network Associate Security	4	_____
Total Credits		12	_____

Specialization 2: Cisco System Administration (CCNP)

Code	Title	Credits	Semester
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____
CNT160AB	Enterprise Networking, Security, and Automation	4	_____
CNT240 or CNT240AA & CNT240AB	Cisco Certified Network Professional: Enterprise Core Cisco Certified Network Professional: Enterprise Core I and Cisco Certified Network Professional: Enterprise Core II	8	_____
CNT250 or CNT250AA & CNT250AB	Cisco Certified Network Professional: Enterprise Advanced Routing and Services Cisco Certified Network Professional: Enterprise Advanced Routing and Services I and Cisco Certified Network Professional: Enterprise Advanced Routing and Services II	8	_____
Total Credits		24	_____

Specialization 3: Linux System Administration

Code	Title	Credits	Semester
CIS238DL	Linux System Administration	3	_____
CIS239DL	Linux Shell Scripting	3	_____
CIS240DL	Linux Network Administration	3	_____
CIS275DL	Linux Capstone	3	_____
Total Credits		12	_____

Specialization 4: Red Hat Enterprise Linux Administration

Code	Title	Credits	Semester
CIS238RH	Red Hat System Administration II	3	_____
CIS239DL	Linux Shell Scripting	3	_____
CIS240RH	Red Hat System Administration III	3	_____
CIS271RH	Red Hat System Administration IV	3	_____
CIS275DL	Linux Capstone	3	_____
Total Credits		15	_____

Specialization 5: Microsoft System Administration

Code	Title	Credits	Semester
CIS121AH	Microsoft PowerShell/ Command Line Operations	3	_____
MST150	Any Microsoft Windows Operating System course	3	_____
MST155DC	Installation, Storage, and Compute with Windows Server	4	_____
MST157DC	Networking with Windows Server	4	_____
MST158DC	Identity Management with Windows Server 2016	4	_____
Total Credits		18	_____

Specialization 6: VMware Network Administrator

Code	Title	Credits	Semester
CIS189	Virtualization and IT Solutions for Digital Businesses	3	_____
CIS197	VMware ESXI Server Enterprise	3	_____

CIS198	VMware vSphere: Optimize and Scale	3	_____
CIS200	VMware NSX: Install, Configure, Manage	3	_____
Total Credits		12	_____

Restricted Electives**0-8 Credits**

Students are to select enough Restricted Elective credits to meet a minimum of 60 credits not used to satisfy Required Courses or selected area of emphasis within the Required Courses. Consult with an Academic Program, or Faculty Advisor to pick courses that align with your career goals.

Cisco Electives

Code	Title	Credits	Semester
CNT140AB	Introduction to Networks ¹	4	_____
CNT150AB	Switching, Routing, and Wireless Essentials	4	_____
CNT160AB	Enterprise Networking, Security, and Automation	4	_____
CNT171	CCNA Exam Prep	1	_____
CNT202	Cisco Secure Firewall Appliance Configuration	4	_____
or CNT205	Cisco Certified Network Associate Security		_____
CNT206	Cisco Certified Network Associate Wireless	4	_____

¹ CNT140AB Introduction to Networks is required for students on the Cisco emphasis

Linux Electives

Code	Title	Credits	Semester
CIS238DL	Linux System Administration	3	_____
CIS238RH	Red Hat System Administration II	3	_____
CIS239DL	Linux Shell Scripting	3	_____
CIS240DL	Linux Network Administration	3	_____
CIS240RH	Red Hat System Administration III	3	_____
CIS275DL	Linux Capstone	3	_____

Microsoft Electives

Code	Title	Credits	Semester
MST	Any MST Microsoft Technology Course		_____
CIS121AB	Microsoft Command Line Operations	1	_____
CIS121AH	Microsoft PowerShell/ Command Line Operations	3	_____

Security Electives

Code	Title	Credits	Semester
CIS270	Essentials of Network and Information Security	3	_____
CIS271DB	Information Security Essentials	3	_____
CIS272DB	Information Security Principles	3	_____
ITS110	Information Security Fundamentals	3	_____

VMware Electives

Code	Title	Credits	Semester
CIS189	Virtualization and IT Solutions for Digital Businesses	3	_____
CIS197	VMware ESXI Server Enterprise	3	_____
CIS198	VMware vSphere: Optimize and Scale	3	_____
CIS200	VMware NSX: Install, Configure, Manage	3	_____

Other Information Technology Electives

Code	Title	Credits	Semester
BPC171	Recycling Used Computer Technology	1	_____
CIS111	Ethics in Information Technology	3	_____
CIS124AA	Project Management Software: Level I	1	_____

CIS124BA	Project Management Software: Level II	1	_____
CIS156	Python Programming: Level I	3	_____
CIS190	Introduction to Networking	3	_____
CIS224	Project Management Microsoft Project for Windows	3	_____
CIS240	Local Area Network Planning and Design	3	_____
CIS250	Management of Information Systems	3	_____
CIS266	Network Integration Capstone	4	_____
CIS290	Computer Information Systems Internship	1-3	_____
CIS296	Cooperative Education	1-4	_____
CIS298	Special Projects	1-3	_____
ITS120	Legal, Ethical and Regulatory Issues	3	_____

General Education**Core and Distribution**

Code	Title	Credits	Semester
Core			
<i>First-Year Composition</i>			
Select two of the following:		6	_____
ENG101	First-Year Composition		_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition		_____
or ENG108	First-Year Composition for ESL		_____
ENG111	Technical and Professional Writing (does not count as an ENG Transfer option)		_____
<i>Oral Communication</i>			
Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication		_____

COM225	Public Speaking (recommended for students transferring to Northern Arizona University)	_____
COM230	Small Group Communication	_____
<i>Critical Reading</i>		
Select one of the following:		0-3
CRE101	College Critical Reading and Critical Thinking	_____
Or equivalent as indicated by assessment		
<i>Mathematics</i>		
Select one of the following:		3-6
MAT140	College Mathematics	_____
MAT141	College Mathematics	_____
MAT142	College Mathematics	_____
MAT145	College Mathematics with Review	_____
MAT146	College Mathematics with Review	_____
Equivalent or higher level mathematics course in the Mathematical Applications (MA) area		
Distribution		
<i>Humanities, Arts and Design</i>		
Any approved general education course(s) from the Humanities, Arts and Design (HU) area		3
<i>Social and Behavioral Sciences</i>		
Any approved general education course from the Social and Behavioral Sciences (SB) area		3
<i>Natural Sciences</i>		
Any approved general education course from the Natural Sciences (SG) or (SQ) area		4
Total Credits		22-28

Oracle Database Operations, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5183N

12 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgc.edu

Program Description

The Certificate of Completion (CCL) in Oracle Database Operations program provides training for students seeking professional positions in designing, creating, and maintaining databases. This program allows students to create PL/SQL application code that can be shared by multiple forms, reports, and data management tools. As an Oracle Academic Initiative institution, this program is designed to prepare students for industry-recognized certifications. Courses in the program also help prepare students wanting to pursue Oracle Application Developer Certified Associate and Oracle Database Administrator Certified Associate industry-certified examinations (Oracle Corporation OCA certifications). This certificate can embed into the Associate of Applied Science (AAS) degree in Information Technology.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

This Certificate of Completion (CCL) is intended for industry professionals with the requisite experience of foundational knowledge in word processing, spreadsheets, databases, presentation software, operating systems, and networking.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CIS119DO	Introduction to Oracle: SQL	3	_____
CIS119DP	Oracle: Database Administration	3	_____
CIS154	Database Modeling and Design	3	_____
CIS164AB	Oracle: PL/SQL Programming	3	_____
Total Credits		12	_____

Organizational Leadership, Certificate of Completion



BUSINESS, ENTREPRENEURIALISM, AND MANAGEMENT

Certificate of Completion: CCL 5731

18 Credits

Program Contact

Jamie Goff | 480-726-4377 | jamie.goff@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Organizational Leadership is designed to prepare students with knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. The CCL in Organizational Leadership is fully embedded in an Associate in Applied Science (AAS) in Organizational Management.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
BPC110	Computer Usage and Applications	3	_____
or CIS105	Survey of Computer Information Systems		_____
GBS110	Human Relations in Business and Industry	3	_____
or MGT251	Human Relations in Business		_____
GBS120	Workplace Communication Skills	3	_____
GBS151	Introduction to Business	3	_____
MGT175	Business Organization and Management	3	_____
or TQM240	Project Management In Quality Organizations		_____
MGT101	Techniques of Supervision	3	_____
or MGT229	Management and Leadership I		_____
Total Credits		18	_____

Organizational Management, Associate in Applied Science



BUSINESS, ENTREPRENEURIALISM, AND MANAGEMENT

Associate in Applied Science: AAS 3727

61-68 Credits

Program Contact

Jamie Goff | 480-726-4377 | jamie.goff@cgcc.edu

Program Description

The Associate in Applied Science (AAS) in Organizational Management program is designed with a customized curriculum specific to the student's individual needs in addition to the knowledge and skills needed in today's changing workplace. The program provides leadership and communication skills and techniques for planning, organizing, leading and controlling business situations. This program also emphasizes procedures for effective resource allocation. A Certificate of Completion (CCL) in Organizational Leadership is fully embedded in this AAS.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
Certificate of Completion in Organizational Leadership (5731) Requirements listed below.			
BPC110	Computer Usage and Applications	3	_____
or CIS105	Survey of Computer Information Systems		_____
GBS110	Human Relations in Business and Industry	3	_____
or MGT251	Human Relations in Business		_____
GBS120	Workplace Communication Skills	3	_____
GBS151	Introduction to Business	3	_____

MGT175	Business Organization and Management	3	_____
or TQM240	Project Management In Quality Organizations		_____
MGT101	Techniques of Supervision	3	_____
or MGT229	Management and Leadership I		_____

Restricted Electives

Students must choose 20 industry/job related course credits from any MCCCDC occupational program and/or Academic Certificate. 20 _____

Industry/job related course credits must include a minimum of 9 credits with a common subject or theme. Program of study must be approved by the business department chair or designee. _____

General Education**Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

Oral Communication

Any approved General Education course from the Oral Communication area 3 _____

Critical Reading

Select one of the following: 0-3 _____

CRE101	College Critical Reading and Critical Thinking		_____
	Or equivalent as indicated by assessment		_____

Mathematics

Any approved general education course(s) in the Mathematics area 3-5 _____

Distribution*Humanities, Arts and Design*

Any approved general education course(s) from the Humanities, Arts and Design area 3 _____

Social and Behavioral Sciences

Any approved general education course from the Social and Behavioral Sciences (SB) area 3 _____

Natural Sciences

Any approved general education course(s) in the Natural Sciences (Quantitative) (SQ) area or the Natural Sciences (General) (SG) area. 4 _____

Total Credits 61-68 _____

Programming and Systems Analysis, Associate in Applied Science



COMPUTER AND INFORMATION TECHNOLOGY

Associate in Applied Science: AAS 3844

62-71 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Programming and Systems Analysis program provides an in-depth exploration of different computer language and technical skills. The AAS includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics. Certificate of Completions (CCLs) in Programming and Systems Analysis Level I and Level II and iOS App Development are also available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Consultation with an Academic Advisor is recommended for course selection.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CIS105	Survey of Computer Information Systems	3	_____
GBS151	Introduction to Business	3	_____
Select one of the following:		3	_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____

MST150++	Any Microsoft Windows course		_____
CIS133DA	Internet/Web Development Level I	3	_____
Select one of the following:		3	_____
CIS150	Programming Fundamentals		_____
CIS150AB	Object-Oriented Programming Fundamentals ¹		_____
CIS166++	Any Web Scripting course(s)	3	_____
Select one of the following:		3-4	_____
CIS190	Introduction to Networking		_____
CNT140AB	Introduction to Networks		_____
MST140	Microsoft Networking Essentials		_____
Select one of the following:		3	_____
CIS225	Business Systems Analysis and Design		_____
CIS225AB	Object-Oriented Analysis and Design		_____
CIS250	Management of Information Systems		_____
Select one of the following:		3	_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
Select a programming language from below that best aligns with academic and professional goals (2 courses for a total of 6 credits) in one of the following areas:		6	_____
CIS156 & CIS256	Python Programming: Level I and Python Programming Level II		_____

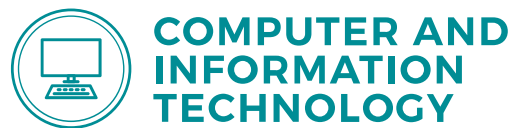
CIS159 & CIS259	Visual Basic Programming I and Visual Basic Programming II		_____
CIS162++	Any C Programming: Level I course		_____
& CIS262++	Any C Programming: Level II course		_____
CIS163AA & CIS263AA	Java Programming: Level I and Java Programming: Level II		_____
CIS265	Advanced iOS Application Development		_____
& CIS165++	Any Mobile Application Development course		_____
Restricted Electives			
Students may not use courses from the Required Courses Area.			
Select two of the following:		6	_____
CIS224	Project Management Microsoft Project for Windows		_____
CIS151	Computer Game Development - Level I		_____
CIS156	Python Programming: Level I		_____
CIS159	Visual Basic Programming I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS165++	Any Mobile Application Development course		_____
CIS251	Computer Game Development - Level II		_____
CIS256	Python Programming Level II		_____
CIS259	Visual Basic Programming II		_____
CIS262++	Any C Programming: Level II course		_____

CIS263AA	Java Programming: Level II	
CIS265	Advanced iOS Application Development	
GBS211	Legal, Ethical and Regulatory Issues of the Internet Studies	
General Electives		
Core		
<i>First-Year Composition</i>		
ENG101	First-Year Composition	3
or ENG107	First-Year Composition for ESL	
ENG102	First-Year Composition	3
or ENG108	First-Year Composition for ESL	
<i>Oral Communication</i>		
	Any approved General Education course from the Oral Communication area	3
<i>Critical Reading</i>		
	Select one of the following:	0-3
CRE101	College Critical Reading and Critical Thinking	
	Or equivalent as indicated by assessment	
<i>Mathematics</i>		
	Select one of the following:	3-6
MAT150	College Algebra/Functions	
MAT151	College Algebra/Functions	
MAT152	College Algebra/Functions	
MAT155	College Algebra/Functions with Review	
MAT156	College Algebra/Functions with Review	
Distribution		
<i>Humanities, Arts and Design</i>		
	Any approved general education course(s) from the Humanities, Arts and Design (HU) area	3
<i>Social and Behavioral Sciences</i>		
	Select one of the following:	3
ECN211	Macroeconomic Principles	
ECN212	Microeconomic Principles	

SBU200	Society and Business	
<i>Natural Sciences</i>		
	Any approved general education course(s) in the Natural Sciences (Quantitative) (SQ) area or the Natural Sciences (General) (SG) area.	4
Total Credits		62-71

¹ Students interested in pursuing an iOS Certificate of Completion (CCL) are recommended to take CIS150AB Object-Oriented Programming Fundamentals

Programming and Systems Analysis Level I, Certificate of Completion



Certificate of Completion: CCL 5048

24 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgc.edu

Program Description

The Certificate of Completion (CCL) in Programming and Systems Analysis Level I provides an exploration of different computer language and technical skills. The CCL includes, but is not limited to the following: operating systems, local area networks, business communication, team roles, and dynamics. A Certificate of Completion (CCL) in Programming and Systems Analysis Level II, Certificate of Completion (CCL) in iOS App Development and an Associate in Applied Science (AAS) in Programming and Systems Analysis are also available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Consultation with an Academic Advisor is recommended for course selection.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
Select one of the following:		3	_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____
MST150++	Any Microsoft Windows course		_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS150	Programming Fundamentals	3	_____
or CIS150AB	Object-Oriented Programming Fundamentals		_____
CIS166++	Any Web Scripting course(s)	3	_____
GBS151	Introduction to Business	3	_____
Select a programming language from below that best aligns with academic and professional goals in one of the following areas:		3	_____
CIS156	Python Programming: Level I		_____
CIS159	Visual Basic Programming I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS165++	Any Mobile Application Development course		_____
Total Credits		24	_____

Programming and Systems Analysis Level II, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5962

36-37 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cg.edu

Program Description

The Certificate of Completion (CCL) in Programming and Systems Analysis Level II provides an in-depth exploration of different computer language and technical skills. This CCL includes, but is not limited to the following: local area networks, team roles, and dynamics. A Certificate of Completion (CCL) in iOS App Development and an Associate in Applied Science (AAS) in Programming and Systems Analysis are available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Consultation with an Academic Advisor is recommended for course selection.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
The following courses are required and included in CCL Programming and Systems Analysis Level I			
CIS105	Survey of Computer Information Systems	3	_____
Select one of the following:		3	_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
Select one of the following:		3	_____
CIS126DL	Linux Operating System		_____
CIS126RH	Red Hat System Administration I		_____

MST150++	Any Microsoft Windows course		_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS150	Programming Fundamentals	3	_____
or CIS150AB	Object-Oriented Programming Fundamentals		_____
Select one of the following:		3	_____
CIS156	Python Programming: Level I		_____
CIS159	Visual Basic Programming I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS165++	Any Mobile Application Development course		_____
CIS166++	Any Web Scripting course(s)	3	_____
GBS151	Introduction to Business	3	_____
The following courses are required for CCL Programming and Systems Level II			
Select one of the following:		3-4	_____
CIS190	Introduction to Networking		_____
CNT140AB	Introduction to Networks		_____
MST140	Microsoft Networking Essentials		_____
Select one of the following:		3	_____
CIS225	Business Systems Analysis and Design		_____
CIS225AB	Object-Oriented Analysis and Design		_____
CIS250	Management of Information Systems		_____
Select a programming language from below that best aligns with academic and professional goals in one of the following areas:		3	_____
CIS256	Python Programming Level II		_____

CIS259	Visual Basic Programming II		_____
CIS262++	Any C Programming: Level II course		_____
CIS263AA	Java Programming: Level II		_____
CIS265	Advanced iOS Application Development		_____
Restricted Electives			
Select one of the courses below that best aligns with academic and professional goals :		3	_____
Students may not choose courses they have taken from the Required Courses area			
CIS151	Computer Game Development - Level I		_____
CIS156	Python Programming: Level I		_____
CIS159	Visual Basic Programming I		_____
CIS162++	Any C Programming: Level I course		_____
CIS163AA	Java Programming: Level I		_____
CIS165++	Any Mobile Application Development course		_____
CIS224	Project Management Microsoft Project for Windows		_____
CIS251	Computer Game Development - Level II		_____
CIS256	Python Programming Level II		_____
CIS259	Visual Basic Programming II		_____
CIS262++	Any C Programming: Level II course		_____
CIS263AA	Java Programming: Level II		_____
CIS265	Advanced iOS Application Development		_____

GBS211	Legal, Ethical and Regulatory Issues of the Internet Studies	_____
Total Credits		36-37

Red Hat Linux Administrator, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5049N

6-9 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Red Hat Linux Administrator program is designed to help prepare students for employment or to improve current professional skills. The program includes Red Hat Enterprise Linux system basics and management including sophisticated manipulation of file structures, backup systems, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, and system resource control. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) certification exam. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of Program Director			
CIS126RH	Red Hat System Administration I	3	_____
CIS238RH	Red Hat System Administration II	3	_____
Total Credits		6-9	_____

Red Hat Linux Engineer, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5050N

9-12 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Red Hat Linux Engineer program is designed to help prepare students for employment or to improve current professional skills. The program includes in depth Red Hat Enterprise Linux system networking including integrating Linux servers and workstations into a network environment with multi-platform network operating systems with a variety of open-standard and proprietary protocols. This program helps prepare students for the Red Hat Certified System Administrator (RHCSA) and Red Hat Certified Engineer (RHCE) certification exams. Students who complete this program may seek employment in a variety of environments. Students can also pursue additional Certificates of Completion (CCL) in a variety of specializations within the information technology field to deepen their knowledge and skills and help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	
CIS105	Survey of Computer Information Systems		
Permission of Program Director			
CIS126RH	Red Hat System Administration I	3	
CIS238RH	Red Hat System Administration II	3	
CIS240RH	Red Hat System Administration III	3	
Total Credits		9-12	

Retail Management, Certificate of Completion



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Certificate of Completion: CCL 5286

24 Credits

Program Contact

Jamie Goff | jamie.goff@cgc.edu

Program Description

The Certificate of Completion (CCL) in Retail Management is designed to prepare individuals working in the retail industry, and related fields, for the industry training needs in supervision and management, marketing, financial management, and business planning. The curriculum encompasses several business essentials and also emphasizes the skill sets needed for effective management and communication in the work environment.

Program Notes

Students must earn a grade of "C" or better required for all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
ACC111	Accounting Principles I	3	
or ACC211	Financial Accounting		
BPC110	Computer Usage and Applications	3	
or CIS105	Survey of Computer Information Systems		
COM100	Introduction to Human Communication	3	
MGT251	Human Relations in Business	3	
MGT101	Techniques of Supervision	3	
or MGT229	Management and Leadership I		
MGT180	Retail Management	3	
MGT276	Human Resources Management	3	
MKT271	Principles of Marketing	3	
Total Credits		24	

Securities Industry Essentials, Certificate of Completion



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Certificate of Completion: CCL 5907

16 Credits

Program Contacts

Ann Lopez | ann.lopez@cgc.edu

Program Description

The Certificate of Completion (CCL) in Securities Industry Essentials builds the industry knowledge and skills for individuals to prepare for careers in Financial Services. This CCL will introduce students new to or interested in financial services to the fundamental concepts of capital markets, types of products and their risks, trading, customer accounts, prohibited activities, and regulatory agencies and their functions. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of security industry jobs. This CCL also helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE). A Certificate of Completion (CCL) and Associate in Applied Science (AAS) in Banking and Finance are also available.

Program Notes

Students must earn a grade of "C" or better for all courses in the program. Overall program minimum GPA = 2.00.

This Certificate of Completion (CCL) is intended for current or prospective securities industry professionals who are interested in expanding their knowledge in the area of financial securities to enhance their employment opportunities.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
GBS120	Workplace Communication Skills	3	_____
GBS151	Introduction to Business	3	_____
GBS261	Investments I	3	_____
GBS261LL	Securities Industry Essentials (SIE) Exam Prep	1	_____
MGT126	Customer Service Skills and Strategies	3	_____
MKT267	Principles of Sales ¹	3	_____
or MKT271	Principles of Marketing		_____
Total Credits		16	_____

¹ Recommend MKT267 Principles of Sales if career goal in the field of finance is sales

Small Business Start-Up, Certificate of Completion



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Certificate of Completion: CCL 5706N

12 Credits

Program Contacts

Jamie Goff | 480-726-4377 | jamie.goff@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Small Business Start-Up program is designed to meet the needs of individuals who wish to become entrepreneurs. Courses provide a background in marketing, management, finance, and a capstone course in which students complete a business plan. The goal of the Small Business Start-Up certificate is to create a foundation for prospective small business owners and contribute to the long-term success of the business community.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses in the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
MGT253	Owning and Operating a Small Business	3	_____
MKT271	Principles of Marketing	3	_____
SBS213	Hiring and Managing Employees	1	_____
SBS214	Small Business Customer Relations	1	_____
SBS220	Internet Marketing For Small Business	2	_____
SBS230	Financial and Tax Management for Small Business	2	_____
Total Credits		12	_____

Social Media Marketing, Certificate of Completion



**BUSINESS,
ENTREPRENEURIALISM,
AND MANAGEMENT**

Certificate of Completion: CCL 5830

17-18 Credits

Program Contacts

Nicki Lynn | 480-732-7394 | nicki.lynn@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Social Media Marketing is designed to provide useful skills important in a variety of strategic marketing areas, e.g., social media, digital communications, integrated marketing, media relations, and brand management. An Associate in Applied Science (AAS) in Marketing and Sales is also available.

Program Notes

Students must earn a grade of "C" or better for all courses in the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CIS103	Introduction to Social Media	3	_____
GBS120	Workplace Communication Skills	3	_____
MKT110	Marketing and Social Networking	3	_____
MKT111	Applied Marketing and Social Networking	3	_____
MKT271	Principles of Marketing	3	_____
Restricted Electives			
Select one of the following:		2-3	_____
MKT101	Introduction to Public Relations		_____
MKT280AB	Marketing Internship		_____
MKT298AB	Special Projects		_____
Total Credits		17-18	_____

VMware Network Administrator, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5032

24-28 Credits

Program Contact

Mizan Rahman | 480-732-7109 | mizan.rahman@cgc.edu

Program Description

The Certificate of Completion (CCL) in VMware Network Administrator program is designed to help students prepare for VMware industry certifications and work in a variety of information technology environments including software-defined data centers. Courses will build the knowledge and skills for students to design, install, configure, troubleshoot, and manage virtual environments and help prepare students for the CompTIA A+, CompTIA Linux +, CompTIA Network +; VMware VCA, VCP, and/or VCAP-NV Deploy certification exams. Students can also pursue additional Certificates of Completion (CCLs) in a variety of specializations within the information technology field to deepen their knowledge and skills and to help prepare them for multiple industry certification examinations. An Associate in Applied Science (AAS) in Network and Systems Administration is also available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Students who pursue this Certificate of Completion (CCL) should have a basic level of computer literacy including navigating the internet and computer systems or take CIS105 Survey of Computer Information Systems as indicated in the required courses. Students with the requisite skills may have the CIS105 Survey of Computer Information Systems requirement waived by permission of the Program Director.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
BPC170	A+ Exam Prep: Computer Hardware Configuration and Support	3	_____
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	_____
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
Permission of Program Director			
CIS126DL	Linux Operating System	3	_____
	or CIS126RH	Red Hat System Administration I	_____
CIS189	Virtualization and IT Solutions for Digital Businesses	3	_____
CIS190	Introduction to Networking	3-4	_____
	or CNT140AB	Introduction to Networks	_____
CIS197	VMware ESXI Server Enterprise	3	_____
CIS198	VMware vSphere: Optimize and Scale	3	_____
CIS200	VMware NSX: Install, Configure, Manage	3	_____
Total Credits		24-28	_____

Web App Development, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5835N

9-12 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cg.edu

Program Description

The Certificate of Completion (CCL) in Web App Development prepares students for employment in entry-level coding, programming, and software development positions with an emphasis on web apps. Courses in this certificate can apply toward the Associate in Applied Science (AAS) in Mobile App Development and Certificates of Completion (CCL) in Mobile App Development and Cross-Platform App Development.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses within the program. Overall program minimum GPA = 2.00.

Students should consult with a Department Advisor in arranging their schedule.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-3	
CIS105	Survey of Computer Information Systems		
Permission of Program Director, Department or Division Chair			
CIS133DA	Internet/Web Development Level I	3	
CIS166AA	Introduction to Javascript	3	
CIS233DA	Internet/Web Development Level II	3	
Total Credits		9-12	

Web Design, Certificate of Completion



COMPUTER AND INFORMATION TECHNOLOGY

Certificate of Completion: CCL 5986

38-43 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cg.edu

Program Description

The Certificate of Completion (CCL) in Web Design provides students with comprehensive and focused studies in web design, including advanced image manipulation, vector graphics, page layout, video editing and design principles. A Certificate of Completion (CCL) in Web Development and an Associate in Applied Science (AAS) in Web Design/Development are also available.

Program Notes

Students must earn a grade of "C" or better in each course in the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
The following courses are required and also fulfill the requirements for the CCL in Web Foundations:			
CIS105	Survey of Computer Information Systems	3	
CIS120DF	Introduction to Adobe Photoshop	3	
CIS133DA	Internet/Web Development Level I	3	
CIS136	Content Management Systems: WordPress	3	
CIS166AA	Introduction to Javascript	3	
CIS233DA	Internet/Web Development Level II	3	

CIS235	E-Commerce	3	_____
The following courses are required and fulfill the requirements for the CCL in Web Design:			
Select one of the following:		3-4	_____
ADA/ ARTINSTRUCT TIME183	Digital Graphic Arts I		_____
ART100 & ART181	Introduction to Digital Arts and Graphic Design I		_____
ART112	Two-Dimensional Design		_____
CIS120DB	Introduction to Adobe Illustrator	3	_____
CIS120DA or CIS120DK	Introduction to Adobe Premiere Introduction to Digital Video Editing	3	_____
CIS138DA	Desktop Design and Publishing Using Adobe InDesign	3	_____
CIS220DF	Adobe Photoshop Level II: Advanced Digital Imaging	3	_____
Restricted Electives			
Select 2 to 6 credits in consultation with your program advisor to further develop skills in the areas of Adobe, Art, Social Media, Marketing, Business and/or Multimedia		2-6	_____
Total Credits		38-43	_____

Web Design/Development, Associate in Applied Science



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Associate in Applied Science : AAS 3185

61-74 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Web Design/Development prepares students to design, create, and administer interactive and professional web sites. Courses focus on "hands-on" experience with web publishing, web graphics preparation, scripting, content management systems and e-commerce solutions. The program provides students a pathway to either develop advanced skills in Web Design or Web Development. Certificates of Completion (CCLs) in Foundational Web Technologies, Web Design and Web Development are also available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
In addition to the required course work students must consult with a program advisor to select one of the specializations within the Restricted Electives area.			
CIS105	Survey of Computer Information Systems	3	_____
CIS120DF	Introduction to Adobe Photoshop	3	_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS136	Content Management Systems: WordPress	3	_____
CIS166AA	Introduction to Javascript	3	_____
CIS233DA	Internet/Web Development Level II	3	_____
CIS235	E-Commerce	3	_____
FYE101 or FYE103	Introduction to College, Career and Personal Success Exploration of College, Career and Personal Success	1-3	_____
Restricted Electives			
Complete all courses in the specialization below that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor.		17-22	_____
Specialization I: Web Design (17-22 Credits) (p. 163)			_____
Specialization II: Web Development (18 Credits) (p. 164)			_____
General Education			

Core		
<i>First-Year Composition</i>		
ENG101	First-Year Composition	3
or ENG107	First-Year Composition for ESL	
ENG102	First-Year Composition	3
or ENG108	First-Year Composition for ESL	
<i>Oral Communication</i>		
Any approved General Education course from the Oral Communication area		3
<i>Critical Reading</i>		
Select one of the following:		0-3
CRE101	College Critical Reading and Critical Thinking	
Or equivalent as indicated by assessment		
<i>Mathematics</i>		
Any approved general education course(s) in the Mathematics area ¹		3-6
College Mathematics:		
MAT140	College Mathematics	
MAT141	College Mathematics	
MAT142	College Mathematics	
MAT145	College Mathematics with Review	
MAT146	College Mathematics with Review	
College Algebra/Functions:		
MAT150	College Algebra/Functions	
MAT151	College Algebra/Functions	
MAT152	College Algebra/Functions	
MAT155	College Algebra/Functions with Review	
MAT156	College Algebra/Functions with Review	
Higher Math Course:		
Higher math course with the Mathematical Applications (MA) general education designation recommended for students intending to transfer to a four-year institution.		
Distribution		

<i>Humanities, Arts and Design</i>		
Any approved general education course(s) from the Humanities, Arts and Design area		3
<i>Social and Behavioral Sciences</i>		
Any approved general education course(s) in the Social and Behavioral Sciences area ²		3
<i>Natural Sciences</i>		
Any approved general education course(s) in the Natural Sciences area		4
Total Credits		61-74

¹ MAT187 Precalculus is recommended for students intending to transfer to ASU (Tempe campus) to earn a BS in Graphic Information Technology.

² PSY101 Introduction to Psychology is recommended for students intending to transfer to ASU (Polytechnic campus) to earn a BS in Technical Communication (User Experience) or to ASU (Tempe campus) to earn a BS in Graphic Information Technology

Specializations

Specialization I: Web Design

Code	Title	Credits	Semester
ADA/ ARTINSTRUCTOR	Digital Graphic Arts I	3-4	
TIME183			
or ART100 & ART181	Introduction to Digital Arts and Graphic Design I		
or ART112	Two-Dimensional Design		
CIS120DA	Introduction to Adobe Premiere	3	
or CIS120DK	Introduction to Digital Video Editing		
CIS120DB	Introduction to Adobe Illustrator	3	
CIS120DC	Introduction to Adobe Animate	3	
or CIS220DF	Adobe Photoshop Level II: Advanced Digital Imaging		
CIS138DA	Desktop Design and Publishing Using Adobe InDesign	3	
Students must select 2 to 6 credits in consultation with your program advisor to further develop skills in the areas of Adobe, Art, Social Media, Marketing, Business and/or Multimedia.		2-6	
Total Credits		17-22	

Specialization II: Web Development

Code	Title	Credits	Semester
CIS119DO	Introduction to Oracle: SQL (or CIS276++ Any Database Management Systems course)	3	_____
CIS126DL or CIS126RH	Linux Operating System Red Hat System Administration I	3	_____
CIS166AE	Web Scripting with PHP: Hypertext Preprocessor (PHP)	3	_____
Programming Language: Select two of the following:		6	_____
CIS150AB	Object-Oriented Programming Fundamentals		_____
CIS156	Python Programming: Level I		_____
CIS159	Visual Basic Programming I		_____
CIS162++	Any C Programming course		_____
CIS163AA	Java Programming: Level I		_____
CIS165++	Any Mobile Application Development course		_____
CIS256	Python Programming Level II		_____
CIS262AD	C# Level II		_____
CIS263AA	Java Programming: Level II		_____
CIS265++	Advanced iOS Application Development		_____
Students must select 3 credits of any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Databases, Information Systems, Programming, and/or Operating Systems.		3	_____
Total Credits		18	_____

Web Development, Certificate of Completion

**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5988

39 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgc.edu

Program Description

The Certificate of Completion (CCL) in Web Development prepares students to create and administer interactive and professional websites. The program provides students with knowledge and skills in developing dynamic websites, client and server side programs, database structures, and object-oriented design. A Certificate of Completion (CCL) in Web Design and an Associate in Applied Science (AAS) in Web Design/ Development are also available.

Program Notes

Students must earn a grade of "C" or better in each course in the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

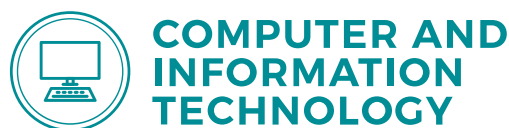
Code	Title	Credits	Semester
Required Courses			
The following courses are required and included in the CCL in Web Foundations:			
CIS105	Survey of Computer Information Systems	3	_____
CIS120DF	Introduction to Adobe Photoshop	3	_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS136	Content Management Systems: WordPress	3	_____
CIS166AA	Introduction to Javascript	3	_____

CIS233DA	Internet/Web Development Level II	3	_____
CIS235	E-Commerce	3	_____
The following courses are required for the CCL in Web Development:			
CIS166AE	Web Scripting with PHP. Hypertext Preprocessor (PHP)	3	_____
Select one of the following:			
CIS119DO	Introduction to Oracle: SQL		_____
CIS276++	Any Database Management Systems course		_____
CIS126DL	Linux Operating System	3	_____
or CIS126RH	Red Hat System Administration I		_____
<i>Programming Language</i>			
Select two of the following:			
CIS150AB	Object-Oriented Programming Fundamentals	6	_____
CIS156	Python Programming: Level I		_____
CIS159	Visual Basic Programming I		_____
CIS162++	Any C Programming course		_____
CIS163AA	Java Programming: Level I		_____
CIS165++	Any Mobile Application Development course		_____
CIS256	Python Programming Level II		_____
CIS262AD	C# Level II		_____
CIS263AA	Java Programming: Level II		_____
CIS265++	Any Advanced Application Development course		_____
Restricted Electives			

Students should select any course with a CIS prefix in consultation with their program advisor to further develop skills in the areas of Databases, Information Systems, Programming, and/or Operating Systems.

Total Credits	39	_____
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Web Foundations, Certificate of Completion



**COMPUTER AND
INFORMATION
TECHNOLOGY**

Certificate of Completion: CCL 5984

21 Credits

Program Contact

Prema Rayappa | 480-732-7230 | prema.rayappa@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Web Foundations introduces students to designing and developing web pages. This CCL prepares students for entry level web positions. Certificates of Completion (CCL) in Web Design and Web Development are available. An Associate in Applied Science (AAS) degree in Web Design/Development is also available.

Program Notes

Students must earn a grade of "C" or better in each course in the program. Overall program minimum GPA = 2.00.

Courses within any of the following prefixes must be taken within five (5) years prior to completion of the program to be applied toward this award: AIM, BPC, CIS, CLD, CNT, CSC, ITS, and MST.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CIS105	Survey of Computer Information Systems	3	_____
CIS120DF	Introduction to Adobe Photoshop	3	_____
CIS133DA	Internet/Web Development Level I	3	_____
CIS136	Content Management Systems: WordPress	3	_____

CIS166AA	Introduction to Javascript	3	_____
CIS233DA	Internet/Web Development Level II	3	_____
CIS235	E-Commerce	3	_____
Total Credits		21	_____

Communication & Fine Arts Associate in Applied Science (AAS)

- Illustration and Sequential Art, Associate in Applied Science (p. 166)
- Photography, Associate in Applied Science (p. 168)

Certificate Of Completion (CCL)

- Illustration, Certificate of Completion (p. 166)
- Sequential Art, Certificate of Completion (p. 171)

Illustration, Certificate of Completion



VISUAL AND PERFORMING ARTS

Certificate of Completion: CCL 5174

31 Credits

Program Contact

Louis Mendoza | 480-732-7089 | louis.mendoza@cgc.edu

Program Description

The Certificate of Completion (CCL) in Illustration develops knowledge and skills in creating visual narratives through traditional and digital media. The program emphasizes art principles, knowledge, and skills needed to solve design and compositional problems. Areas of emphasis include graphic arts, publications, and storyboarding for animation, video, and media. This certificate prepares students for employment and upgrades the skills of persons employed in occupations such as freelance artist-designer, concept artist, visual development artist for gaming/film, and storyboarder. Students may also pursue an Associate in Applied Science (AAS) in Illustration and Sequential Art.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Code	Title	Credits	Semester
Required Courses			
ADA/ ARTINSTRUCTOR TIME169	2D Media Design	3	_____

ADA/ ARTINSTRUCTOR TIME177	Digital Photographic Imaging I	3	_____
ADA/ ARTINSTRUCTOR TIME248 or ART255	Design Self Promotion Art Marketing	3	_____
ADA/ ARTINSTRUCTOR TIME289	Computer Illustration	3	_____
ART100	Introduction to Digital Arts	1	_____
ART111	Drawing I	3	_____
ART113 or ART114	Color Digital Color	3	_____
ART116	Life Drawing I	3	_____
ART178	Digital Arts Studies	3	_____

Restricted Electives

Students must select six credits from the following list of courses. 6

Students may select from one emphasis or may select from different emphases to fulfill the six credit requirement

Animation Emphasis

ADA/ART/ MMTINSTRUCTDR TIME184	Digital Animation	_____
ART/ MMTINSTRUCT TIME185	3D Modeling and Animation I	_____

Drawing Emphasis

ART117	Life Drawing II	_____
ART118	Art Anatomy	_____
ART122	Drawing and Composition II	_____

Painting Emphasis

ART165	Watercolor Painting I	_____
ART166	Watercolor Painting II	_____
ART167	Painting I	_____
ART168	Painting II	_____
ART263	Figure Painting	_____

Total Credits **31**

Illustration and Sequential Art, Associate in Applied Science



VISUAL AND PERFORMING ARTS

Associate in Applied Science : AAS 3203**61-74 Credits****Program Contact**

Louis Mendoza | 480-732-7089 | louis.mendoza@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Illustration and Sequential Art is designed for the student who wishes to develop an area of specialization in illustration and comics and sequential art. Students will develop narratives through traditional and digital media. The program emphasizes art principles, knowledge, and skills needed to solve design and compositional problems. Areas of emphasis include comic book and sequential art, illustration for publications, and storyboarding. It allows for the development of an individual's personal interest in this area, prepares students for employment, and upgrades skills of those already employed in this field. Employment opportunities are available in a variety of fields including, but not limited to, freelance artist-designer, concept artist, comics/sequential art, visual development artist for gaming/film, and storyboarder. A Certificate of Completion (CCL) in Illustration and in Sequential Art is also available.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
ADA/ ARTINSTRUCTOR TIME169	2D Media Design	3	_____
ADA/ ARTINSTRUCTOR TIME177	Digital Photographic Imaging I	3	_____
ADA/ ARTINSTRUCTOR TIME289	Computer Illustration	3	_____
ART100	Introduction to Digital Arts	1	_____
ART111	Drawing I	3	_____
ART113 or ART114	Color Digital Color	3	_____
ART116	Life Drawing I	3	_____
ART178	Digital Arts Studies	3	_____
FYE101 or FYE103	Introduction to College, Career and Personal Success Exploration of College, Career and Personal Success	1-3	_____
<i>Capstone/Internship Course:</i>			
Select one of the following:		1-3	_____

ART280AA	Digital Media Arts and Design Capstone	_____
ART280AB	Digital Media Arts and Design Capstone	_____
ART280AC	Digital Media Arts and Design Capstone	_____
Restricted Electives		
Select from one of the following areas of specialization:	9-18	_____
<i>Specialization 1: Sequential Art (18 credits)</i>		
ART119	Penciling for Sequential Art	_____
ART120	Inking for Sequential Art	_____
ART219	Coloring, Toning and Lettering for Sequential Art	_____
ART220	Publishing for the Comic Industry	_____
ART221	Comics Creation	_____
Select one of the following:		
CRW172	Introduction to Comic Book Writing	_____
CRW176	Writing Narrative for Video Games	_____
CRW190	Introduction to Screenwriting	_____
<i>Specialization 2: Illustration (9 credits)</i>		
Select one of the following:		
ADA/ ARTINSTRUCTOR TIME248	Design Self (Promotion)	_____
ART255	Art Marketing	_____
Students must select six credits from the following list of courses.		
Students may select from one emphasis or may select from different emphases to fulfill the six credit requirement.		
Animation Emphasis		
ADA/ART/ MMTINSTRUCTDR TIME184	Digital Animation	_____
ART/ MMTINSTRUCTA TIME185	3D Modeling and Animation I	_____
Drawing Emphasis		
ART117	Life Drawing II	_____
ART118	Art Anatomy	_____

ART122	Drawing and Composition II		
Painting Emphasis			
ART165	Watercolor Painting I		
ART166	Watercolor Painting II		
ART167	Painting I		
ART168	Painting II		
ART263	Figure Painting		
General Electives			
Select additional courses 100-level or higher to complete the minimum credits required for this degree. Consult with the Program Director or an Academic Advisor.		0-6	
General Education			
Core			
<i>First-Year Composition</i>			
ENG101	First-Year Composition	3	
or ENG107	First-Year Composition for ESL		
ENG102	First-Year Composition	3	
or ENG108	First-Year Composition for ESL		
<i>Oral Communication</i>			
Select one of the following:		3	
COM100	Introduction to Human Communication		
COM110	Interpersonal Communication		
COM225	Public Speaking		
COM230	Small Group Communication		
<i>Critical Reading</i>			
Select one of the following:		0-3	
CRE101	College Critical Reading and Critical Thinking		
Or equivalent as indicated by assessment			
<i>Mathematics</i>			
Select three to six credits from the following:		3-6	
Any approved general education course(s) in the Mathematics area			
MAT140	College Mathematics ¹		
MAT141	College Mathematics ¹		
MAT142	College Mathematics ¹		

MAT145	College Mathematics with Review ¹		
MAT146	College Mathematics with Review ¹		
Distribution			
<i>Humanities, Arts and Design</i>			
ARH101	Prehistoric Through Gothic Art	3	
or ARH102	Renaissance Through Contemporary Art		
<i>Social and Behavioral Sciences</i>			
Any approved general education course(s) in the Social and Behavioral Sciences area		3	
<i>Natural Sciences</i>			
Any approved general education course(s) in the Natural Sciences area		4	

¹ Recommended for students planning to transfer to a four-year university.

Photography, Associate in Applied Science



VISUAL AND PERFORMING ARTS

Associate in Applied Science : AAS 3195

61-67 Credits

Program Contact

Buzzy Sullivan | 480-732-7291 | buzzy.sullivan@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Photography program is designed for the student who wishes to pursue a career in photography, either commercial or fine arts. Students will study digital and traditional film-based (darkroom) media, content and image selection, and the theory and practice of visual communication.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

There will be costs for supplies and equipment in this program.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
ARH101	Prehistoric Through Gothic Art	3	
or ARH102	Renaissance Through Contemporary Art		
ARH115	History of Photography	3	
ART100	Introduction to Digital Arts	1	
ART112	Two-Dimensional Design	3	
ART113	Color	3	
ART131	Photography I	3	
ART132	Photography II	3	
ART142	Introduction to Digital Photography	3	
ART143	Intermediate Digital Photography	3	
ART255	Art Marketing	1-3	
or ART255AB	The Portfolio		
FYE101	Introduction to College, Career and Personal Success	1-3	
or FYE103	Exploration of College, Career and Personal Success		
Restricted Electives			
Complete all courses in the specialization below that best aligns with your academic and professional goals.		8-20	
Specialization I: Commercial Photography (p. 170)			
Specialization II: Fine Art Photography (p. 170)			
General Electives			
Select courses 100-level or higher to complete the minimum total program credits required for this degree. Consult with the Program Director or an Academic Advisor. ¹		0-7	
General Education			
Core			
<i>First-Year Composition</i>			
ENG101	First-Year Composition	3	
or ENG107	First-Year Composition for ESL		
ENG102	First-Year Composition	3	
or ENG108	First-Year Composition for ESL		
<i>Oral Communication</i>			
Select one of the following:		3	

COM100	Introduction to Human Communication		
COM110	Interpersonal Communication		
COM225	Public Speaking		
COM230	Small Group Communication		
<i>Critical Reading</i>			
Select one of the following:		0-3	
CRE101	College Critical Reading and Critical Thinking		
OR Equivalent as indicated by assessment			
<i>Mathematics</i>			
Select one of the following:		3-6	
MAT140	College Mathematics		
MAT141	College Mathematics		
MAT142	College Mathematics		
MAT145	College Mathematics with Review		
MAT146	College Mathematics with Review		
Any approved General Education course in the Mathematical Applications (MA) area			
Distribution			
<i>Humanities, Arts and Design</i>			
Met by Required Courses ²		0	
<i>Social and Behavioral Sciences</i>			
Any approved general education course from the Social and Behavioral Sciences (SB) area		3	
<i>Natural Sciences</i>			
Any approved general education course(s) in the Natural Sciences (Quantitative) (SQ) area or the Natural Sciences (General) (SG) area.		4	
Total Credits		61-67	

¹ Recommend that students interested in transferring to a four-year institution to earn a bachelor's degree take courses that fulfill any unmet Arizona General Education Curriculum (AGEC) requirements

² Met by ARH101 Prehistoric Through Gothic Art or ARH102 Renaissance Through Contemporary Art or ARH115 History of Photography or ART131 Photography I in Required Courses

Specializations

Specialization I: Commercial Photography

Code	Title	Credits	Semester
ART138	Commercial Photography I	3	_____
ART139	Commercial Photography II	3	_____
ART140	Portrait Photography	3	_____
or ART237	Fashion Photography		_____
SBS200	Small Business Operations	2	_____
Select one of the following:		2-3	_____
MKT110	Marketing and Social Networking		_____
MKT263	Advertising Principles		_____
MKT271	Principles of Marketing		_____
SBS204	Small Business Marketing And Advertising		_____
In consultation with advisor or program coordinator, choose up to six (6) credits of coursework from the following list to best fulfill goals and complete the minimum total program credits required for this degree.		0-6	_____
ADA/ARTINSTRUCTOR TIME169	2D Media Design		_____
ADA/ARTINSTRUCTOR TIME177	Digital Photographic Imaging I		_____
ART111	Drawing I		_____
ART116	Life Drawing I		_____
ART137	Alternative Photographic Processes		_____
ART178	Digital Arts Studies		_____
ART181	Graphic Design I		_____
ART234	Color Photography I		_____
ART270	Digital Photographic Imaging II		_____
ART290AC	Studio Art		_____
ART290EC	Studio Art: Photography		_____
ART290MC	Studio Art: Digital Photography		_____

ART295DA	Art Workshop/Seminar: Photography		_____
ART295DB	Art Workshop/Seminar: Photography		_____
ART295DC	Art Workshop/Seminar: Photography		_____
ART297AA	Commercial Art Internship		_____
or ART297AE	Commercial Art Internship		_____
FMP108	Video Production		_____
Total Credits		13-20	_____

Specialization II: Fine Art Photography

Code	Title	Credits	Semester
ART133	Photography III	3	_____
ART137	Alternative Photographic Processes	3	_____
Select two to nine credits from the following:		2-9	_____
ADA/ARTINSTRUCTOR TIME169	2D Media Design		_____
ADA/ARTINSTRUCTOR TIME177	Digital Photographic Imaging I		_____
ART111	Drawing I		_____
ART116	Life Drawing I		_____
ART134	Photography IV		_____
ART178	Digital Arts Studies		_____
ART234	Color Photography I		_____
ART250	Introduction to Printmaking		_____
ART270	Digital Photographic Imaging II		_____
ART274	Digital Photographic Imaging III		_____
ART290AC	Studio Art		_____
ART290EC	Studio Art: Photography		_____
ART290MC	Studio Art: Digital Photography		_____
ART295DA	Art Workshop/Seminar: Photography		_____
ART295DB	Art Workshop/Seminar: Photography		_____

ART295DC	Art Workshop/ Seminar: Photography	_____
ART297AA	Commercial Art Internship	_____
SBS200	Small Business Operations	_____
SBS204	Small Business Marketing And Advertising	_____
Total Credits		8-15

Sequential Art, Certificate of Completion



VISUAL AND PERFORMING ARTS

Certificate of Completion: CCL 5177

40 Credits

Program Contact

Louis Mendoza | 480-732-7089 | louis.mendoza@cgcc.edu

Program Description

The Certificate of Completion (CCL) in Sequential Art develops knowledge and skills in the area of sequential art, including but not limited to comics, graphic novels, anime, children's books, self-publishing, digital illustration, and storyboarding for digital media. Students will develop diverse narratives that reflect cultural, historical, and social diversity.

The program provides the student with an understanding of writing for sequential art, illustration techniques, and digital media tools for illustration, layout and publication. This certificate prepares students for employment and upgrades the skills of persons employed in occupations such as illustrator, comic book artist, storyboarder, cartoonist, penciler, inker, colorist, letterer, production artist, game designer, and comic book writer. An Associate in Applied Science (AAS) in Illustration and Sequential Art is also available.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
ADA/ ARTINSTRUCTOR TIME169	2D Media Design	3	_____
ADA/ ARTINSTRUCTOR TIME177	Digital Photographic Imaging I	3	_____

ADA/ ARTINSTRUCTOR TIME289	Computer Illustration	3	_____
ART100	Introduction to Digital Arts	1	_____
ART111	Drawing I	3	_____
ART113 or ART114	Color Digital Color	3	_____
ART116	Life Drawing I	3	_____
ART119	Penciling for Sequential Art	3	_____
ART120	Inking for Sequential Art	3	_____
ART178	Digital Arts Studies	3	_____
ART219	Coloring, Toning and Lettering for Sequential Art	3	_____
ART220	Publishing for the Comic Industry	3	_____
ART221	Comics Creation	3	_____
Select one of the following:		3	_____
CRW172	Introduction to Comic Book Writing		_____
CRW176	Writing Narrative for Video Games		_____
CRW190	Introduction to Screenwriting		_____
Total Credits		40	_____

Composition, Creative Writing & Literature

- Creative Writing, Academic Certificate (p. 171)

Creative Writing, Academic Certificate



CULTURE AND SOCIETY

Academic Certificate: AC 6224N

24 Credits

Program Contact

Patrick Finn | 480-857-5543 | patrick.finn@cgcc.edu

Program Description

The Academic Certificate (AC) in Creative Writing program is designed to provide students and professional writers with access to a community of writers and creative writing activities, instruction and guidance from established authors, and ongoing support in improving their writing skills and marketing their work. As students take courses in the program, they will build a portfolio of original work that may be submitted for

publication. The program offers classes, workshops, and other activities such as readings and contests, which are accessible to writers of all levels regardless of academic or professional standing. The program aims to serve a diverse community who may be underrepresented in traditional creative writing programs. Completion of the certificate does not lead to a particular degree program, but may aid students in their pursuit of a career in the writing professions and in their continued enjoyment of writing for personal growth

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Students who wish to enroll in the Creative Writing program must complete a formal application; contact Program Director.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
CRW150	Introduction to Creative Writing ¹	3	_____
CRW200	Readings for Writers ²	1	_____
CRW200	Readings for Writers ²	1	_____
CRW201	Portfolio	1	_____
Series I			
Students must complete six credits from Series I in consultation with a Program Director.			
Select two of the following:		6	_____
CRW120	Introduction to Writing Children's Literature		_____
CRW160	Introduction to Writing Poetry		_____
CRW170	Introduction to Writing Fiction		_____
CRW172	Introduction to Comic Book Writing		_____
CRW180	Introduction to Writing Nonfiction		_____
CRW190	Introduction to Screenwriting		_____
THE118	Playwriting		_____
Series II			
Students must complete nine credits from Series II in consultation with a Program Director.			

Select three of the following:		9	_____
CRW202	The Writer as Witness		_____
CRW203	Dialogue		_____
CRW204	Journaling		_____
CRW220	Intermediate Writing Children's Literature		_____
CRW251	Topics in Creative Writing		_____
CRW260	Intermediate Poetry Writing		_____
CRW261	Topics in Writing: Poetry		_____
CRW270	Intermediate Fiction Writing		_____
CRW271	Topics in Writing: Fiction		_____
CRW272	Planning and Structuring the Novel		_____
CRW273	Writing the Novel		_____
CRW274	Revising the Novel		_____
CRW281	Topics in Writing: Non-Fiction		_____
CRW290	Intermediate Screenwriting		_____
CRW291	Topics in Writing: Plays		_____
Restricted Electives			
Select one of the following:		3	_____
CRW+++++	Any CRW Creative Writing prefixed course (not listed under Required Courses area)		_____
ENG235	Magazine Article Writing		_____
ENH+++++	Any ENH English Humanities prefixed course		_____
THE260	Film Analysis		_____
HUM/THFINSTRUCT/CINEMA	Contemporary		_____
TIME210			_____
Total Credits		24	_____

¹ ENG210 Creative Writing may be substituted for CRW150 Introduction to Creative Writing with permission of the Program Director.

² CRW200 Readings for Writers must be repeated for a total two credits

Health Science and Public Service Associate in Applied Science (AAS)

- Administration of Justice Studies, Associate in Applied Science (p. 173)
- Exercise Science: Health, Fitness and Sports Performance, Associate in Applied Science (p. 178)
- Forensic Science, Associate in Applied Science (p. 181)
- Law Enforcement Training, Associate in Applied Science (p. 184)
- Mortuary Science, Associate in Applied Science (p. 187)

Certificate of Completion (CCL)

- Administration of Justice, Certificate of Completion (p. 175)
- Corrections, Certificate of Completion (p. 176)
- Crime Scene Investigation, Certificate of Completion (p. 176)
- Emergency Medical Technology Comprehensive, Certificate of Completion (p. 177)
- Emergency Medical Technology, Certificate of Completion (p. 177)
- Fingerprint Identification and Photography, Certificate of Completion (p. 180)
- Forensic Science, Certificate of Completion (p. 183)
- Homeland Security, Certificate of Completion (p. 183)
- Law Enforcement Training Academy, Certificate of Completion (p. 185)
- Law Enforcement, Certificate of Completion (p. 184)
- Leadership in Public Safety Organizations, Certificate of Completion (p. 186)
- Legal Studies, Certificate of Completion (p. 187)
- Personal Trainer, Certificate of Completion (p. 189)
- Personal Trainer: Advanced, Certificate of Completion (p. 190)
- Victimology, Certificate of Completion (p. 191)

Administration of Justice Studies, Associate in Applied Science



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Associate in Applied Science: AAS 3181

61-65 Credits

Program Contact

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Administration of Justice Studies provides in-depth preparation for students desiring to be practitioners or pursue continued education and advancement in several fields including local and federal law enforcement, the courts, corrections, security, and investigations. The program also provides criminal justice practitioners with the opportunity to complete the Certificate of Completion (CCL) in Administration of Justice as well as one of five Certificates of Completion (CCLs) in Corrections, Homeland Security, Law Enforcement, Legal Studies, and Victimology. A transfer pathway

in Criminal Justice is also available (Associate Arts (AA), Emphasis in Criminal Justice) as well as an Associate in Applied Science (AAS) in Forensics and related Certificates of Completion.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates that any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____
AJS109	Substantive Criminal Law	3	_____
AJS123	Ethics and the Administration of Justice	3	_____
AJS/EMT/FSC/ SWUINSTRUCTOR TIME258 or AJS200	Victimology and Crisis Management Current Issues In Criminal Justice	3	_____
AJS212	Juvenile Justice Procedures	3	_____
AJS225	Criminology	3	_____
AJS230	The Police Function	3	_____
AJS240	The Correction Function	3	_____
AJS260	Procedural Criminal Law	3	_____
FYE101 or FYE103	Introduction to College, Career and Personal Success Exploration of College, Career and Personal Success	1-3	_____
Restricted Electives			
Select 12 to 13 credits from the following:		12-13	_____
AJS113	Criminal Justice Crime Control Policies and Practices (Fulfills ASU transfer requirement)		_____
AJS119	Computer Applications in Justice Studies (Fulfills NAU transfer requirement)		_____

AJS162	Domestic Violence (Fulfills Victimology certificate requirement)		SOC101	Introduction to Sociology (Fulfills ASU transfer requirement)	
AJS201	Rules of Evidence (Fulfills Legal Studies certificate requirement)		or PSY101	Introduction to Psychology	
AJS205	Effective Communication and Report Writing in Criminal Justice (Fulfills Corrections, Law Enforcement and Legal Studies certificate requirement)		REC120	Leisure and the Quality of Life (Fulfills ASU transfer requirement)	
AJS210	Constitutional Law (Fulfills Legal Studies certificate requirement and NAU transfer requirement)		SWU171	Introduction to Social Work (Fulfills ASU transfer requirement)	
AJS255	The Criminal Justice System Handling of the Mentally Ill (Fulfills Corrections and Victimology certificate requirement)		Select only one of the following:		
AJS270	Community Relations (Fulfills GCU transfer requirement)		AJS+++	Any AJS Administration of Justice Studies course (not listed under Required Courses area)	
AJS275	Criminal Investigation I (Fulfills Corrections and Law Enforcement certificate requirement and GCU transfer requirement)		BPC110	Computer Usage and Applications (fulfills transfer requirement)	
AJS290BN	Courtroom Testimony Seminar		CIS105	Survey of Computer Information Systems (fulfills transfer requirement)	
CIS114DE	Excel Spreadsheet (Fulfills NAU transfer requirement)		General Electives		
			Select additional courses 100-level or higher to complete a minimum of 61 semester credits.	0-5	
			Select courses not already listed in Required Courses, Restrictive Electives, or General Education requirements. Consult with an AJS faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.		
			Recommend the following for transfer:		
			Any course with an (HU) and (G) general education designation		
			General Education		
			Core		
			<i>First-Year Composition</i>		
			ENG101	First-Year Composition	3
			or ENG107	First-Year Composition for ESL	
			ENG102	First-Year Composition	3
			or ENG108	First-Year Composition for ESL	
			<i>Oral Communication</i>		

Select one of the following: 3 _____

COM100	Introduction to Human Communication	_____
COM110	Interpersonal Communication	_____
COM225	Public Speaking (Recommend for students intending to transfer)	_____
COM230	Small Group Communication	_____

Critical Reading _____

Select one of the following: 0-3 _____

CRE101	College Critical Reading and Critical Thinking	_____
Or equivalent as indicated by assessment		_____

Mathematics _____

Select one of the following: 3-6 _____

MAT140	College Mathematics	_____
MAT141	College Mathematics	_____
MAT142	College Mathematics	_____
MAT145	College Mathematics with Review	_____
MAT146	College Mathematics with Review	_____

Any approved general education course(s) in the Mathematics area _____

Distribution _____**Humanities, Arts and Design** _____Met by Required Courses ¹ 0 _____**Social and Behavioral Sciences** _____Met by Required Courses ² 0 _____**Natural Sciences** _____Any approved general education course(s) in the Natural Sciences area ³ 4 _____

Total Credits 61-65 _____

¹ Met by AJS123 Ethics and the Administration of Justice in the Required Courses area² Met by AJS200 Current Issues In Criminal Justice or AJS258 Victimology and Crisis Management/EMT258 Victimology and Crisis Management/FSC258 Victimology and Crisis Management/SWU258 Victimology and Crisis Management in the Required Courses area³ May be met by FOR105 Forensic Science: Physical Evidence or FOR106 Forensic Science: Biological Evidence in Electives area.

Administration of Justice, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5007N**15 Credits****Program Contact**

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cgc.edu

Program Description

The Certificate of Completion (CCL) in the Administration of Justice program is designed to be interdisciplinary by nature and provides students with foundational knowledge of the criminal justice system and operational processes for addressing crime within society. This program also examines diverse populations and communities, and their effects on relationships with the criminal justice system. In addition, this program allows students to familiarize themselves with and evaluate various career opportunities in the criminal justice field and is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____
AJS109	Substantive Criminal Law	3	_____
	or AJS260	Procedural Criminal Law	_____
AJS123	Ethics and the Administration of Justice	3	_____
AJS230	The Police Function	3	_____
AJS240	The Correction Function	3	_____
Total Credits		15	_____

Corrections, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5776N

15 Credits

Program Contact

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cgc.edu

Program Description

The Certificate of Completion (CCL) in the Corrections program is designed for students intending to pursue careers in various correctional components of the justice system, including parole, probation, jail, and prisons. Focus is broader learning about the correction function in the context of overall administration of justice system.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____
AJS123	Ethics and the Administration of Justice	3	_____
or AJS255	The Criminal Justice System Handling of the Mentally Ill		_____
AJS212	Juvenile Justice Procedures	3	_____
AJS240	The Correction Function	3	_____
AJS205	Effective Communication and Report Writing in Criminal Justice	3	_____
or AJS275	Criminal Investigation I		_____
Total Credits		15	_____

Crime Scene Investigation, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5964

16-18 Credits

Program Contact

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cgc.edu

Program Description

The Certificate of Completion (CCL) in Crime Scene Investigation is designed to develop knowledge and skills required to investigate and reconstruct crime scenes using scientific evidence and logical analysis. The program provides instruction in criminal investigation procedures, collection and preservation of physical and biological evidence, death investigation techniques, crime scene reconstruction methodology and presentation of testimony in court.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Code	Title	Credits	Semester
Required Courses			
AJS213	Evidence Technology/ Fingerprints	3	_____
or AJS243	Crime Scene Reconstruction		_____
Select one of the following:		3-4	_____
AJS215	Criminalistics: Physical Evidence		_____
AJS219	Crime Scene Technology: Physical Evidence		_____
FOR105	Forensic Science: Physical Evidence		_____
AJS216	Criminalistics: Biological Evidence	3-4	_____
or FOR106	Forensic Science: Biological Evidence		_____
AJS214	Evidence Technology/ Photography	3	_____
AJS275	Criminal Investigation I	3	_____

AJS290BN	Courtroom Testimony Seminar	1	
Total Credits		16-18	

Emergency Medical Technology, Certificate of Completion



HEALTH SCIENCES

Certificate of Completion: CCL 5643N

13 Credits

Program Contact

Sherrick Bader | 480-988-8101 | sherrick.bader@cg.c.edu

Program Description

The Certificate of Completion (CCL) in Emergency Medical Technology curriculum provides the student with the necessary knowledge and skills in accordance with the National EMS Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. Successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. The primary focus of an EMT is to respond to, assess and triage emergent, urgent, and non-urgent requests for medical care, apply basic knowledge and skills necessary to provide patient care and medical transportation to/from an emergency or health care facility.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

EMT104 Emergency Medical Technology requires students to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. Depending on the college, this may be completed through EMT104AB Applied Practical Studies for Emergency Medical Technology or program director-approved rotation.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Students who have current validation in Basic Life Support (BLS) are required to receive credit by evaluation.

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0.5	

EMT101	Basic Life Support/ Cardiopulmonary Resuscitation (CPR) for Health Care Providers		
Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer and Credit By Evaluation			
EMT104AB	Applied Practical Studies for Emergency Medical Technology	0.5	
EMT104LL	Emergency Medical Technology Practicum	2	
EMT104	Emergency Medical Technology	10	
Total Credits		13	

Emergency Medical Technology Comprehensive, Certificate of Completion



HEALTH SCIENCES

Certificate of Completion: CCL 5058

16-17 Credits

Program Contact

Sherrick Bader | 480-988-8101 | sherrick.bader@cg.c.edu

Program Description

The Certificate of Completion (CCL) in Emergency Medical Technology Comprehensive curriculum provides the student with the necessary knowledge and skills in accordance with the National EMS Scope of Practice published by National Highway Traffic Safety Administration (NHTSA) and the Arizona Department of Health Services. This certificate provides students with the expanded knowledge and skills for pre-hospital settings. Successful completion of the curriculum and upon licensure, the candidate can seek employment with ambulance service companies, first responder agencies, fire departments, and hospitals as an Emergency Medical Technician (EMT). Emphasis is on the fundamental principles and skills required to provide emergency medical care for the ill or injured. The primary focus of an EMT is to respond to, assess and triage emergent, urgent, and non-urgent requests for medical care, apply basic knowledge and skills necessary to provide patient care and medical transportation to/from an emergency or health care facility.

Program Notes

Students must earn a grade of “C” or better in all courses within the program. Overall program minimum GPA = 2.00.

EMT104 Emergency Medical Technology requires students to complete additional hours in a competency-based clinical, vehicular, and/or scenario based experience. Depending on the college, this may be completed through EMT104AB Applied Practical Studies for Emergency Medical Technology or program director-approved rotation.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Students who have current validation in Basic Life Support (BLS) are required to receive credit by evaluation.

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0.5	
EMT101	Basic Life Support/ Cardiopulmonary Resuscitation (CPR) for Health Care Providers		
Current validation in Basic Life Support (BLS) Health Care Provider/Professional Rescuer and Credit By Evaluation			
EMT104AB	Applied Practical Studies for Emergency Medical Technology	0.5	
EMT104	Emergency Medical Technology	10	
EMT104LL	Emergency Medical Technology Practicum	2	
Restricted Electives			
Select one of the following:		3-4	
AJS/EMT/ FSC/ SWUINSTRUCT TIME258	Victimology and Crisis Management		
BIO156	Introductory Biology for Allied Health		
HCC145	Medical Terminology for Health Care Professionals		

PME190 Introduction to ECG Rhythm Analysis and Interpretation for EMS Professionals

PME191 Introduction to Pharmacology for EMS Professionals

Total Credits

16-17

Exercise Science: Health, Fitness and Sports Performance, Associate in Applied Science



HEALTH SCIENCES

Associate in Applied Science: AAS 3059

62-74.5 Credits

Program Contact

Kim McGee, ACSM (EP-C) | 480-726-4246 | kimberly.mcgee@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Exercise Science: Health, Fitness and Sports Performance program prepares students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM) and the American Council on Exercise (ACE) personal trainer certifications. The curriculum is designed to prepare students for employment in entry-level positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. This curriculum also provides good preparation for transfer to a four-year bachelor program.

Program Notes

Students must earn a grade of “C” or better required for all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-4	
BIO181	General Biology (Majors) I		
One year of high school biology			
BIO160	Introduction to Human Anatomy and Physiology	4	
or BIO201	Human Anatomy and Physiology I		

Select one of the following:		0-0.5	_____
EMT101	Basic Life Support/ Cardiopulmonary Resuscitation (CPR) for Health Care Providers		_____
HES106	Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)		_____
Current CPR/AED certification			_____
EXS101	Introduction to Exercise Science	3	_____
EXS125	Introduction to Exercise Physiology	3	_____
EXS146	Introduction to Exercise Testing	1	_____
EXS215	Resistance Training and Recovery Techniques	3	_____
EXS217	Cardiorespiratory and Flexibility Training	3	_____
EXS246	Advanced Exercise Testing	2	_____
EXS255	Program Design: Muscular Fitness and Performance	3	_____
EXS257	Program Design: Cardiorespiratory Fitness	3	_____
Student must complete three (3) credits from the following EXS internship course options:		3	_____
Option 1			
Select one of the following:			
EXS270	Exercise Science Internship		_____
or EXS270AA Exercise Science Internship			
EXS270AB	Exercise Science Internship		_____
Option 2			
Select one of the following:			
EXS275	Sport Science Internship		_____
or EXS275AA Sport Science Internship			
EXS275AB	Sport Science Internship		_____
Option 3			
EXS270AA	Exercise Science Internship		_____
EXS275AB	Sport Science Internship		_____

Option 4			
EXS270AB	Exercise Science Internship		_____
EXS275AA	Sport Science Internship		_____
EXS290	Introduction to Evidence-Based Practice	3	_____
FON100	Introductory Nutrition	3	_____
or FON241 Principles of Human Nutrition			
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103 Exploration of College, Career and Personal Success			
HES100	Healthful Living	3	_____
HES210	Cultural Aspects of Health and Illness	3	_____
PED101ST	Strength Training	1	_____
Select one of the following:			
PED101BC	Boot Camp		_____
PED101BS	Body Sculpting		_____
PED101CY	Cycling - Indoor		_____
PED101GF	Group Fitness/ Aerobics		_____
PED101KB	Kickboxing		_____
PED101LD	Latin Dancing		_____
PED101PC	Physical Conditioning		_____
PED101PS	Pilates		_____
PED101SR	Stretch and Relaxation		_____
PED101TC	Tai Chi		_____
PED101TX	Suspension Training		_____
PED101YG	Gentle Yoga		_____
PED101YH	Hatha Yoga		_____
PED101YO	Yoga		_____
PED101YP	Power Yoga		_____
PED101YR	Restorative Yoga		_____
PED101ZU	Zumba Fitness		_____
PSY101	Introduction to Psychology	3	_____

Restricted Electives

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.		1	_____
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EXS+++++ Any EXS Exercise Science course	_____
FON+++++ Any FON Food and Nutrition course	_____
HES+++++ Any HES Health Science course	_____
PED+++++ Any PED Physical Education course	_____
IFS110 Critical Research for College Success	_____
General Education	_____
Core	_____
<i>First-Year Composition</i>	_____
ENG101 First-Year Composition	3 _____
or ENG107 First-Year Composition for ESL	_____
ENG102 First-Year Composition	3 _____
or ENG108 First-Year Composition for ESL	_____
<i>Oral Communication</i>	_____
Select one of the following:	3 _____
COM100 Introduction to Human Communication	_____
COM110 Interpersonal Communication	_____
COM225 Public Speaking	_____
COM230 Small Group Communication	_____
<i>Critical Reading</i>	_____
Select one of the following:	0-3 _____
CRE101 College Critical Reading and Critical Thinking (or equivalent by assessment)	_____
OR Equivalent as indicated by assessment	_____
<i>Mathematics</i>	_____
Select one of the following options:	3-6 _____
Option 1	_____
Select one of the following:	_____
MAT140 College Mathematics	_____
MAT141 College Mathematics	_____
MAT142 College Mathematics	_____
MAT145 College Mathematics with Review	_____
MAT146 College Mathematics with Review	_____
Option 2	_____
Select one of the following:	_____

MAT150 College Algebra/ Functions	_____
MAT151 College Algebra/ Functions	_____
MAT152 College Algebra/ Functions	_____
MAT155 College Algebra/ Functions with Review	_____
MAT156 College Algebra/ Functions with Review	_____
Higher level course in the Mathematical Applications ^{MA} area	_____
Distribution	_____
<i>Humanities, Arts and Design</i>	_____
Any approved general education course(s) from the Humanities, Arts and Design area	3 _____
<i>Social and Behavioral Sciences</i>	_____
Met by Required Courses ¹	0 _____
<i>Natural Sciences</i>	_____
Met by Required Courses ²	0 _____
Total Credits	62-74.5 _____

¹ Met by HES100 Healthful Living in Required Courses.
² Met by BIO201 Human Anatomy and Physiology I in Required Courses.

Fingerprint Identification and Photography, Certificate of Completion



Certificate of Completion: CCL 5010N
10 Credits
Program Contact
 Lisa Ruschak | 480-726-4078 | lisa.ruschak@cgc.edu

Program Description
 The Certificate of Completion (CCL) in Fingerprint Identification and Photography is designed to prepare students for entry level positions in the field of fingerprint classification and identification. It is one pathway to the Associate in Applied Science (AAS) in Forensic Science.

Program Notes
 This program is not eligible for Title IV Federal Financial Aid.
 Students must earn a grade of “C” or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____
AJS213	Evidence Technology/ Fingerprints	3	_____
AJS214	Evidence Technology/ Photography	3	_____
AJS290BN	Courtroom Testimony Seminar	1	_____
Total Credits		10	_____

Forensic Science, Associate in Applied Science



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Associate in Applied Science AAS 3183

61-68 Credits

Program Contact

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cg.edu

Program Description

The Associate in Applied Science (AAS) in Forensic Science provides the student with a specialization in forensic investigation as it relates to crime. The curriculum presents a specialized scope of knowledge about photography, collection and preservation of evidence, and investigative strategies. The program provides students with an important knowledge base for investigative specialization in a wide range of disciplines and careers. This degree pathway also provides students with the opportunity to complete two Certificates of Completion (CCL) in Crime Scene Investigation, and Fingerprint Identification and Photography.

Program Notes

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____

AJS123	Ethics and the Administration of Justice	3	_____
AJS275	Criminal Investigation I	3	_____
AJS290BN	Courtroom Testimony Seminar	1	_____
Select one of the following:		3-4	_____
AJS215	Criminalistics: Physical Evidence		_____
AJS219	Crime Scene Technology: Physical Evidence		_____
FOR105	Forensic Science: Physical Evidence		_____
AJS216	Criminalistics: Biological Evidence	3-4	_____
or FOR106	Forensic Science: Biological Evidence		_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
Students should select courses from one of the following specializations based on career goals.		15-23	_____
<i>Specialization 1: Crime Scene</i>			
AJS109	Substantive Criminal Law		_____
AJS210	Constitutional Law		_____
AJS213	Evidence Technology/ Fingerprints		_____
AJS214	Evidence Technology/ Photography		_____
AJS260	Procedural Criminal Law		_____
<i>Specialization 2: Lab Science</i>			
ASM/ FORINSTRUCT TIME275	Forensic (Anthropology)		_____
CHM151	General Chemistry I		_____
CHM151LL	General Chemistry I Laboratory		_____
CHM152	General Chemistry II		_____

CHM152LL	General Chemistry II Laboratory	
PHY111	General Physics I	
PHY112	General Physics II	
Select one of the following:		
Any course with the HU, C and G general education designations		
Any course with the HU, C and H general education designations		
Restricted Electives		
Students must complete three (3) credits of restricted electives.	3	
Students interested in specialization 1: Crime Scene select from one of the following:		
CIS105	Survey of Computer Information Systems	
BPC110	Computer Usage and Applications	
AJS+++++	Any AJS Administration of Justice Studies course (not listed in the required courses area)	
Students interested in Specialization 2: Lab Science select from one of the following:		
CIS105	Survey of Computer Information Systems	
BPC110	Computer Usage and Applications	
General Electives		
Students must choose zero 0-14 additional credits of General Elective courses. Total number of General Electives required will largely depend upon specialization selected.	0-14	
General Education		
Core		
<i>First-Year Composition</i>		
ENG101	First-Year Composition	3
or ENG107	First-Year Composition for ESL	
ENG102	First-Year Composition	3
or ENG108	First-Year Composition for ESL	
<i>Oral Communication</i>		
COM225	Public Speaking	3
<i>Critical Reading</i>		

Select one of the following:		0-3
CRE101	College Critical Reading and Critical Thinking	
or equivalent by assessment		
Mathematics		
Crime Scene Emphasis:		
Select one of the following:		3-5
MAT140	College Mathematics	
MAT141	College Mathematics	
MAT142	College Mathematics	
Higher course with an (MA) general education designation		
Lab Science Emphasis:		
Select one of the following:		3-8
MAT150	College Algebra/ Functions	
MAT151	College Algebra/ Functions	
MAT152 & MAT182	College Algebra/ Functions and Plane Trigonometry	
MAT187	Precalculus	
Higher course with an (MA) general education designation		
Distribution		
<i>Humanities, Arts and Design</i>		
Met by Required Courses ¹		0
<i>Social and Behavioral Sciences</i>		
Met by Required Courses ²		0
<i>Natural Sciences</i>		
Recommended for Specialization 1 Crime Scene:		0-4
Select one of the following:		
CHM130 & 130LL	Fundamental Chemistry and Fundamental Chemistry Laboratory	
CHM151 & 151LL	General Chemistry I and General Chemistry I Laboratory	
FOR105	Forensic Science: Physical Evidence	
FOR106	Forensic Science: Biological Evidence	

For Specialization 2 Lab Science: met by ³	0	_____
CHM151 & 151LL	General Chemistry I and General Chemistry I Laboratory	_____
Total Credits	61-68	_____

¹ Met by AJS123 Ethics and the Administration of Justice in Required Courses area

² Met by AJS101 Introduction to Criminal Justice in Required Courses area

³ Met by CHM151 General Chemistry I and CHM151LL General Chemistry I Laboratory

Forensic Science, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5326

18 Credits

Program Contact

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cg.edu

Program Description

The Certificate of Completion (CCL) in Forensic Science is designed to provide students with the technical skills and knowledge necessary to evaluate and process a crime scene for items of evidentiary value, document crime scene evidence, and collect and retain items consistent with forensic procedures.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS201	Rules of Evidence	3	_____
AJS213	Evidence Technology/ Fingerprints	3	_____
AJS215	Criminalistics: Physical Evidence	3	_____
AJS216	Criminalistics: Biological Evidence	3	_____

AJS241	Police Photography	3	_____
AJS275	Criminal Investigation I	3	_____
Total Credits		18	_____

Homeland Security, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5322N

15 Credits

Program Contact

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cg.edu

Program Description

The Certificate of Completion (CCL) in Homeland Security program is designed to provide students with the knowledge and skills needed to conduct a homeland security evaluation and to assess, investigate and respond to terrorism incidents. It also provides criminal justice practitioners with an opportunity for academic growth and the development of specialized skills in homeland security.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS/ FSCINSTRUCTOR TIME139	Emergency Response to Terrorism	3	_____
AJS/ FSCINSTRUCTOR TIME147	Emergency Preparedness	3	_____
AJS/ FSCINSTRUCTOR TIME148	Fundamentals of Emergency Management	3	_____
AJS/ FSCINSTRUCTOR TIME149	Hazard Mitigation	3	_____
AJS195	International And Domestic Terrorism	3	_____
Total Credits		15	_____

Law Enforcement, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5987N

15 Credits

Program Contact

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cgc.edu

Program Description

The Certificate of Completion (CCL) in Law Enforcement is designed for students who are interested in pursuing a course of study specifically focused on law enforcement. The certificate program specializes in training and education related to the duties of law enforcement. The program is designed for the student with no Arizona police academy experience and is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better in all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____
AJS123	Ethics and the Administration of Justice	3	_____
AJS205	Effective Communication and Report Writing in Criminal Justice	3	_____
AJS230	The Police Function	3	_____
AJS275	Criminal Investigation I	3	_____
Total Credits		15	_____

Law Enforcement Training, Associate in Applied Science



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Associate in Applied Science: AAS 3188

63-71 Credits

Program Contact

John Terpay | 480-988-8756 | jonathan.terpay@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Law Enforcement Training is designed to provide students with up-to-date industry specific training that will enhance their professional opportunities. Courses are also designed to teach students how to handle the challenges of the law enforcement profession. A Certificate of Completion (CCL) in Law Enforcement Training Academy is also available.

Program Notes

Students must earn a grade of "C" or better for all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Admission Criteria

Must meet AzPOST minimum requirements for a law enforcement officer and meet any physical requirements by the Academy Director.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____
AJS109	Substantive Criminal Law	3	_____
AJS113	Criminal Justice Crime Control Policies and Practices	3	_____
AJS151	Firearms I	1	_____
AJS153	Firearms II/ Handguns	1	_____
AJS154	Firearms III/Long Weapons	1	_____
AJS162	Domestic Violence	3	_____
AJS201	Rules of Evidence	3	_____
AJS205	Effective Communication and Report Writing in Criminal Justice	3	_____

AJS210	Constitutional Law	3	_____
AJS215	Criminalistics: Physical Evidence	3	_____
AJS230	The Police Function	3	_____
AJS260	Procedural Criminal Law	3	_____
AJS270	Community Relations	3	_____
AJS275	Criminal Investigation I	3	_____
AJS290BN	Courtroom Testimony Seminar	1	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
General Education			
Core			
<i>First-Year Composition</i>			
ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
Select one of the following:		3	_____
ENG102	First-Year Composition		_____
ENG108	First-Year Composition for ESL		_____
ENG111	Technical and Professional Writing		_____
<i>Oral Communication</i>			
Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication ¹		_____
COM225	Public Speaking		_____
COM230	Small Group Communication ¹		_____
<i>Critical Reading</i>			
Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____
Or equivalent as indicated by assessment			_____
<i>Mathematics</i>			

Any approved general education course(s) in the Mathematics area		3-6	_____
The following courses are recommended for students transferring:			
MAT140	College Mathematics		_____
MAT141	College Mathematics		_____
MAT142	College Mathematics		_____
Any higher approved general education course in the Mathematical Applications (MA) area			
Distribution			
<i>Humanities, Arts and Design</i>			
Any approved general education course(s) from the Humanities, Arts and Design area ²		3	_____
<i>Social and Behavioral Sciences</i>			
Any approved general education course(s) in the Social and Behavioral Sciences area		3	_____
<i>Natural Sciences</i>			
Any approved general education course(s) in the Natural Sciences area		4	_____
Total Credits		63-71	_____

¹ Recommended: COM110 Interpersonal Communication or COM230 Small Group Communication

² Recommended: AJS123 Ethics and the Administration of Justice

Law Enforcement Training Academy, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5991N

40 Credits

Program Contact

Jonathan Terpay | 480-988-8756 | jonathan.terpay@cgc.edu

Program Description

The Certificate of Completion (CCL) in Law Enforcement Training Academy is designed for students wishing to pursue a career as a law enforcement officer. The student will develop skills in eight functional areas: Introduction to Law Enforcement, Law and Legal Matters, Patrol Procedures, Traffic Control, Crime Scene Management, Community and Police Relations, Report Writing, and Police Proficiency Skills.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

AJS coursework for this program is taught by instructors who are certified police officers in the State of Arizona as required by the Arizona Peace Officer Standards and Training (AzPOST) Board standards. Any AJS coursework that has already been completed but was not taught by a certified police officer with a recognized academy, will not satisfy the requirements of the certificate. Additionally, this Certificate of Completion (CCL) can be awarded to peace officers who complete the AzPOST waiver (lateral transfers) or to out-of-state academies engaged in an Educational Partnership (ESP) or an Educational Service Agreement (ESA) through one of the offering colleges.

This Certificate of Completion (CCL) is offered as an educational partnership at Rio Salado College. Students are advised to meet with the program director, chair and/or faculty advisor. This Certificate of Completion is offered as a closed academy program at Chandler Gilbert Community College and Glendale Community College. Students at these colleges are advised to meet with the program director, chair and/or faculty advisor.

++ indicates any suffixed course may be selected.

Admission Criteria

Must meet AzPOST minimum requirements for a law enforcement officer and meet any physical requirements by the Academy Director.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	_____
AJS109	Substantive Criminal Law	3	_____
AJS113	Criminal Justice Crime Control Policies and Practices	3	_____
AJS151	Firearms I	1	_____
AJS153	Firearms II/ Handguns	1	_____
AJS154	Firearms III/Long Weapons	1	_____
AJS162	Domestic Violence	3	_____
AJS201	Rules of Evidence	3	_____
AJS205	Effective Communication and Report Writing in Criminal Justice	3	_____
AJS210	Constitutional Law	3	_____

AJS215	Criminalistics: Physical Evidence	3	_____
AJS230	The Police Function	3	_____
AJS260	Procedural Criminal Law	3	_____
AJS270	Community Relations	3	_____
AJS275	Criminal Investigation I	3	_____
AJS290BN	Courtroom Testimony Seminar	1	_____
Total Credits		40	_____

Leadership in Public Safety Organizations, Certificate of Completion



**BEHAVIORAL SCIENCE
AND HUMAN SERVICES**

Certificate of Completion: CCL 5211N

6 Credits

Program Contact

Jonathan Terpay | 480-988-8756 | jonathan.terpay@cg.edu

Program Description

The Certificate of Completion (CCL) in Leadership in Public Safety Organizations program builds the industry knowledge and skills for individuals to transition to leadership positions in the field of public safety. This CCL will introduce students to the fundamental concepts and skills of professionalism, organizational culture and management, characteristics of effective teams, conflict resolution, motivation, systems-thinking, problem-solving, and leadership as applicable to public safety organizations. Students with the requisite experience in the field who complete this CCL can pursue employment in a variety of front-line leadership positions within the fields of public safety including law enforcement, fire service, and public safety support operations such as communication operators and property and records management.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of C or better for all courses within the program.

++ indicates any suffixed course may be selected.

Admission Criteria

This is a closed program for Public Safety professionals. Please see the Program Advisor for admission requirements.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
LET173	Introduction to Leadership in Public Safety	2	_____
LET174	Organizational Culture and Leadership	3	_____
LET175	Public Safety Leadership Capstone	1	_____
Total Credits		6	_____

Legal Studies, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5966N

15 Credits

Program Contacts

Lisa Ruschak 480-726-4078 | lisa.ruschak@cg.edu

Program Description

The Certificate of Completion (CCL) in Legal Studies is designed for students who are interested in pursuing a course of study specifically focused on legal studies. It is one pathway to the Associate of Applied Science (AAS) in Administration of Justice.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS109	Substantive Criminal Law	3	_____
AJS201	Rules of Evidence	3	_____
AJS123	Ethics and the Administration of Justice	3	_____
or AJS205	Effective Communication and Report Writing in Criminal Justice		_____

AJS210	Constitutional Law	3	_____
AJS260	Procedural Criminal Law	3	_____
Total Credits		15	_____

Mortuary Science, Associate in Applied Science



STEM

Associate in Applied Science: AAS 3765

66.5-79.5 Credits

Program Contact

Donna G. Backhaus | 480-988-8503 | donna.backhaus@cg.edu

Program Description

The Associate in Applied Science (AAS) in Mortuary Science program includes studies in public health; business management; natural sciences; legal, ethical and regulatory concerns; and clinical requirements associated with the mortuary field. The curriculum combines coursework in mortuary science with a general education component. The AAS in Mortuary Science degree is accredited by the American Board of Funeral Service Education (ABFSE) 992 Mantua Pike, Suite 108, Woodbury Heights, NJ 08097, 816-233-3747, www.abfse.org. Completion of the courses in the program prepares the student to sit for the National Board examination and begin state internship requirements.

Program Notes

Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Students must earn a grade of C or better in each course in the program.

Admission Criteria

Formal application and admission to the program is required. Prior to applying to the program, students must have proof of high school graduation or GED and must complete the following required coursework with a minimum GPA of 2.75 prior to entry into the Mortuary Science (MSP) cohort coursework: [(ACC107 or ACC111), BIO160 or (BIO201 and BIO202), (BPC+++++ or CIS+++++) (BPC110 or CIS105 recommended), (COM100 or COM110 or COM225 or COM230), (CRE101 or equivalent), (ENG101 or ENG107), (ENG102 or ENG108), GBS205 or GBS206 or GBS207 or PHI214, GBS151 or MGT175 or MGT251 or MGT253, (PSY101 or PHY132 or PSY156), Mathematics (any approved), and Humanities (REL100 recommended)] or have permission of Program Director

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
	Select one of the following:	3-4	_____

ACC107	Bookkeeping Theory And Practice	_____	MSP202	Embalming Laboratory,Embalr	3	_____
ACC111	Accounting Principles I	_____	MSP202LL	Embalming Lab	1	_____
ACC211	Financial Accounting	_____	MSP203	Microbiology for Mortuary Science	3	_____
ACC212	Managerial Accounting	_____	MSP204	Chemistry for Mortuary Science	3	_____
Select one of the following:		4-8	MSP205	Mortuary Administration I	3	_____
BIO201 & BIO202	Human Anatomy and Physiology I and Human Anatomy and Physiology II	_____	MSP206	Mortuary Administration II	3	_____
BIO160	Introduction to Human Anatomy and Physiology	_____	MSP207	Restorative Art Laboratory,Mortua Science Restorative Art	3	_____
Select one of the following:		1-3	MSP207LL	Mortuary Science Restorative Art Lab	1	_____
BPC	Any BPC Business- Personal Computers course ¹	_____	MSP208	Legal, Regulatory, and Ethical Issues in Mortuary Science	3	_____
CIS	Any CIS Computer Information Systems course ¹	_____	MSP209	Pathology for Mortuary Science	3	_____
Select one of the following:		3	MSP210	Psychology, Counseling, and Mortuary Science	2	_____
GBS205	Legal, Ethical, and Regulatory Issues in Business	_____	MSP211	Compendium for Mortuary Science	2	_____
GBS206	Business Law (UCC)	_____	Select one of the following:		3	_____
GBS207	Business Law (General Corporate)	_____	PSY101	Introduction to Psychology ²		_____
PHI214	Business Ethics	_____	PSY156	Understanding Death and Dying		_____
Select one of the following:		3	PSY132	Psychology and Culture		_____
GBS151	Introduction to Business	_____	Note that students who desire to transfer should choose PSY101.			_____
MGT175	Business Organization and Management	_____	General Education			_____
MGT251	Human Relations in Business	_____	Core			_____
MGT253	Owning and Operating a Small Business	_____	<i>First-Year Composition</i>			_____
MSP101	Introduction to Mortuary Science	1	Select two of the following:		6	_____
MSP105	Crematory Operator Training	0.5	ENG101	First-Year Composition		_____
MSP201	History and Sociology of Funeral Service	3	or ENG107	First-Year Composition for ESL		_____
			ENG102	First-Year Composition		_____
			or ENG108	First-Year Composition for ESL		_____
			ENG111	Technical and Professional Writing		_____
			<i>Oral Communication</i>			_____
			Select one of the following:		3	_____
			COM100	Introduction to Human Communication		_____

COM110	Interpersonal Communication	_____
COM225	Public Speaking	_____
COM230	Small Group Communication	_____
Critical Reading		
Select one of the following:		0-3 _____
CRE101	College Critical Reading and Critical Thinking	_____
OR Equivalent as indicated by assessment		_____
Mathematics		
Any approved general education course from the Mathematics area with a C or better ³		3-6 _____
Distribution		
<i>Humanities, Arts and Design</i>		
Any approved general education course(s) from the Humanities, Arts and Design area ⁴		3 _____
<i>Social and Behavioral Sciences</i>		
Met by Required Courses ⁵		0 _____
<i>Natural Sciences</i>		
Met by Required Courses ⁶		0 _____
Total Credits	66.5-79.5	_____

¹ BPC110 Computer Usage and Applications or CIS105 Survey of Computer Information Systems recommended

² Students who desire to transfer should choose PSY101 Introduction to Psychology

³ Students who desire to transfer should choose from the MAT14+ or MAT15+ options

⁴ REL100 World Religions is recommended

⁵ Met by PSY101 Introduction to Psychology OR PSY156 Understanding Death and Dying in Required Courses.

⁶ Met by BIO160 Introduction to Human Anatomy and Physiology in Required Courses.

Personal Trainer, Certificate of Completion



HEALTH SCIENCES

Certificate of Completion: CCL 5421

18-18.5 Credits

Program Contact

Kim McGee, ACSM (EP-C) | 480-726-4246 | kimberly.mcgee@cg.edu

Program Description

The Certificate of Completion (CCL) in Personal Training is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National

Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum provides students with the foundational skills needed to design and implement fitness programs appropriate to clients' goals and aligned with current industry best practices. A CCL in Personal Training: Advanced, an Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance, and an Associate in Arts (AA), Emphasis in Exercise Science are also available for students interested in continuing their studies in this field.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
EXS101	Introduction to Exercise Science	3	_____
EXS125	Introduction to Exercise Physiology	3	_____
EXS146	Introduction to Exercise Testing	1	_____
EXS215	Resistance Training and Recovery Techniques	3	_____
EXS217	Cardiorespiratory and Flexibility Training	3	_____
FON100	Introductory Nutrition	3	_____
	or FON241 Principles of Human Nutrition		_____
PED101ST	Strength Training	1	_____
Select one of the following:		0-0.5	_____
EMT101	Basic Life Support/ Cardiopulmonary Resuscitation (CPR) for Health Care Providers		_____
HES106	Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)		_____
Current CPR/AED certification			_____
Restricted Electives			

Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.	1	_____
EXS+++++ Any EXS Exercise Science course	_____	_____
FON+++++ Any FON Food and Nutrition course	_____	_____
HES+++++ Any HES Health Science course	_____	_____
PED+++++ Any PED Physical Education course	_____	_____
IFS110 Critical Research for College Success	_____	_____
Total Credits	18-18.5	_____

Personal Trainer: Advanced, Certificate of Completion



HEALTH SCIENCES

Certificate of Completion: CCL 5445

30-30.5 Credits

Program Contact

Kim McGee, ACSM (EP-C) | 480-726-4246 | kimberly.mcgee@cgc.edu

Program Description

The Certificate of Completion (CCL) in Personal Training: Advanced is designed to prepare students for the American College of Sports Medicine (ACSM), National Strength and Conditioning Association (NSCA), National Academy of Sports Medicine (NASM), and the American Council on Exercise (ACE) personal trainer certifications. These certifications are generally required for employment in personal training positions and/or professional advancement within the fitness industry. The curriculum is designed to prepare students for employment in positions such as personal training within health and fitness clubs, wellness centers, and public and private recreation facilities. The curriculum includes the foundational courses required for the CCL in Personal Training coupled with advanced hands-on courses that foster the development of critical thinking and leadership skills important for developing, implementing and leading exercise programs. An Associate in Applied Science (AAS) in Exercise Science: Health, Fitness, and Sports Performance and an Associate in Arts (AA), Emphasis in Exercise Science are also available for students interested in continuing their studies in this field.

Program Notes

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			_____
Select one of the following:		0-0.5	_____
EMT101	Basic Life Support/ Cardiopulmonary Resuscitation (CPR) for Health Care Providers		_____
HES106	Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)		_____
Current CPR/AED certification			_____
EXS101	Introduction to Exercise Science	3	_____
EXS125	Introduction to Exercise Physiology	3	_____
EXS146	Introduction to Exercise Testing	1	_____
EXS215	Resistance Training and Recovery Techniques	3	_____
EXS217	Cardiorespiratory and Flexibility Training	3	_____
EXS246	Advanced Exercise Testing	2	_____
EXS255	Program Design: Muscular Fitness and Performance	3	_____
EXS257	Program Design: Cardiorespiratory Fitness	3	_____
Student must complete three (3) credits from the following EXS internship course options:		3	_____
Option 1			_____
Select one of the following:			_____
EXS270	Exercise Science Internship		_____
EXS270AA & EXS270AB	Exercise Science Internship and Exercise Science Internship		_____
Option 2			_____
Select one of the following:			_____
EXS275	Sport Science Internship		_____

EXS275AA & EXS275AB	Sport Science Internship and Sport Science Internship		
Option 3			
EXS270AA & EXS275AB	Exercise Science Internship and Sport Science Internship		
Option 4			
EXS270AB & EXS275AA	Exercise Science Internship and Sport Science Internship		
FON100	Introductory Nutrition	3	
or FON241	Principles of Human Nutrition		
PED101ST	Strength Training	1	
Select one of the following:		1	
PED101BC	Boot Camp		
PED101BS	Body Sculpting		
PED101CY	Cycling - Indoor		
PED101GF	Group Fitness/ Aerobics		
PED101KB	Kickboxing		
PED101LD	Latin Dancing		
PED101PC	Physical Conditioning		
PED101PS	Pilates		
PED101SR	Stretch and Relaxation		
PED101TC	Tai Chi		
PED101TX	Suspension Training		
PED101YG	Gentle Yoga		
PED101YH	Hatha Yoga		
PED101YO	Yoga		
PED101YP	Power Yoga		
PED101YR	Restorative Yoga		
PED101ZU	Zumba Fitness		
Restricted Electives			
Complete one (1) credit from one of the following course options not already selected in the Required Courses area. Choose a course that best aligns with your academic and professional goals. Consult with an academic, faculty, or program advisor as needed.		1	
EXS+++++	Any EXS Exercise Science course		
FON+++++	Any FON Food and Nutrition course		

HES+++++	Any HES Health Science course		
PED+++++	Any PED Physical Education course		
IFS110	Critical Research for College Success		
Total Credits		30-30.5	

Victimology, Certificate of Completion



BEHAVIORAL SCIENCE AND HUMAN SERVICES

Certificate of Completion: CCL 5392N

15 Credits

Program Contacts

Lisa Ruschak | 480-726-4078 | lisa.ruschak@cgc.edu

Program Description

The Certificate of Completion (CCL) in Victimology is designed for students who are interested in pursuing a course of study specifically focused on crisis intervention, community services, and victim rights. It is one pathway to the Associate in Applied Science (AAS) in Administration of Justice.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AJS101	Introduction to Criminal Justice	3	
AJS162	Domestic Violence	3	
AJS225	Criminology	3	
AJS255	The Criminal Justice System Handling of the Mentally Ill	3	
AJS/EMT/FSC/SWUINSTRUCTOR TIME258	Victimology and Crisis Management	3	
Total Credits		15	

Languages, Humanities, Learning Center & Information Studies

- Women and Gender Studies, Academic Certificate (p. 192)

Women and Gender Studies, Academic Certificate



**CULTURE
AND SOCIETY**

Academic Certificate: AC 6225N

15 Credits

Program Contact

Donna Thompson | 480-857-5534 | donna.thompson@cgc.edu

Program Description

The Academic Certificate (AC) in Women and Gender Studies is an intensive interdisciplinary liberal arts certificate program, which provides students with tools and opportunities to discuss and critique historical and contemporary theories and practices of feminism(s) and gender identities. The curriculum enables students to think critically, analyze problems, and communicate effectively. Using women's experiences and perspectives, students explore cultural and global issues by completing a variety of courses focusing on gender, history, culture, class, race, ethnicity, and sexuality to foster equality and understanding.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

Students must earn a grade of "C" or better for all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
WST100	Introduction to Women's and Gender Studies	3	
Restricted Electives			
Students must complete 12 credits from the list below:		12	
ASB211	Women in Other Cultures		
ENH/ WSTINSTRUCT TIME284	19th Century Women Writers		
ENH/ WSTINSTRUCT TIME285	Contemporary Women Writers		

HIS201	History of Women in America	
HLR/ WSTINSTRUCT TIME286	Women and Health: Body/Mind/Spirit/Connection	
HUM/ WSTINSTRUCT TIME209	Women and Films	
PSY235	Psychology of Gender	
REL/ WSTINSTRUCT TIME290	Women and World Religions	
SOC212	Gender and Society	
WST120	Gender, Class, and Race	
WST128	Law and Violence Against Women	
WST160	Women and the Early American Experience	
WST161	American Women Since 1920	
WST200	Essential Feminist Writing	
Total Credits		15

Nursing

- Registered Nurse Pathway, Associate in Applied Science (p. 192)

Registered Nurse Pathway, Associate in Applied Science



HEALTH SCIENCES

Nursing

Associate in Applied Science: AAS 3812

62-75 Credits

Program Contacts

Director of Nursing
Jill Anderson | 480-988-8865 | jill.anderson@cgc.edu

Nursing Advisor
Maria Dela Torre | 480-988-8880 | chuy.delatorre@cgc.edu

Nursing Office
Teresa Hull | 480-988-8881 | teresa.hull@cgc.edu

Program Description

The Associate in Applied Science (AAS) in Nursing Program is available at eight of the Maricopa Community Colleges. Clinical experiences are provided in a variety of healthcare settings. Nursing Program graduates are eligible to apply for the national exam for the registered nurse license. Licensing requirements are the exclusive responsibility of the State Board of Nursing.

The Associate in Applied Science (AAS) Nursing Program is approved by the Arizona State Board of Nursing and accredited by the Accreditation Commission for Education in Nursing (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326; (404-975-5000); email: info@acennursing.org

Program Offerings

This program is offered at the following sites:

- Chandler-Gilbert Community College
- Estrella Mountain Community College
- Gateway Community College
- Glendale Community College
- Mesa Community College
- Paradise Valley Community College
- Phoenix College
- Scottsdale Community College

Waiver of Licensure/Certification Guarantee

Admission or graduation from the Nursing Program does not guarantee obtaining a license to practice nursing. Licensure requirements and the subsequent procedures are the exclusive right and responsibility of the Arizona State Board of Nursing. Students must satisfy the requirements of the Nurse Practice Act: Statutes, Rules and Regulations, independently of any college or school requirements for graduation.

Pursuant to A.R.S. 32-1606(B)(17), an applicant for professional or practical nurse license by examination is not eligible for licensure if the applicant has any felony convictions and has not received an absolute discharge from the sentences for all felony convictions. The absolute discharge must be received five or more years before submitting this application. If you cannot prove that the absolute discharge date is five or more years, the Board cannot process your application.

Level One Fingerprint Clearance is required for admission into the program. Applicants must present a Level One Fingerprint Clearance Card to be copied by the advisor or designee. For a Department of Public Safety Fingerprint Clearance Card application, contact MCCCDC Healthcare/Nursing Advisor. If there is any question about eligibility for licensure or certification, contact the nursing education consultant at the Arizona State Board of Nursing (602.771.7800).

Health Declaration

It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At a minimum, students will be required to lift patients, stand for several hours at a time and perform bending activities. Students who have a chronic illness or condition must be maintained on current treatment and be able to implement direct patient care. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting patients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration

to the mental and physical demands of the program prior to making application. All must provide documentation of compliance with all health and safety requirements required to protect patient safety. Only students in compliance are permitted to enroll in nursing courses. Students will meet these requirements by providing the required documentation for the Health/Safety Requirements Documentation Checklist and the signed Health Declaration Form.

Health & Safety Requirements for the Maricopa Nursing Program

- a. Students must submit a Health and Safety Documentation Checklist verifying completion of all requirements and maintain current status throughout the program.
- b. Students must submit the Health Declaration Form signed by a licensed health care provider.
- c. Students must test negative on a timed urine drug screen.
- d. Admission to an Allied Health program requires that students be in compliance with the Maricopa County Community College District Supplemental Background Check policy. Program applications will not be accepted without a copy of an Arizona Department of Public Safety Level One Fingerprint Clearance Card. Upon conditional program admission, the student must comply with all requirements of the current MCCCDC background check policy.

University Transfer Students

Students who are planning to earn the Bachelor of Science in Nursing may obtain their prerequisite courses at the Maricopa Community Colleges. For information on courses that meet requirements for admission into a baccalaureate program, please contact a program advisor.

Registered Nurse Pathway Associate in Applied Science Degree in Nursing Program

The Associate in Applied Science (AAS) degree in Nursing graduate is eligible to apply for licensure as a Registered Nurse (RN). The RN is educated as a generalist who delivers health care to clients and family groups and has competencies related to the art and science of nursing. The RN may be employed in a variety of acute, long term, and community-based healthcare settings. The AAS degree in Nursing provides the graduate with an educational foundation for articulation into the university setting.

Program Notes

Students must earn a grade of "C" or better in all courses required within the program. Overall program minimum GPA = 2.00.

++ indicates any suffixed course may be selected.

Course Fee Information

Please see class schedule for information regarding course fees.

Maricopa Nursing is aligned with Nurse of the Future Competencies: Patient-Centered Care, Professionalism, Leadership, Systems-Based Practice, Informatics and Technology, Communication, Teamwork and Collaboration, Safety, Quality Improvement, and Evidence-Based Practice. These competencies focus on key stakeholders of healthcare clients, colleagues and communities. Demonstration of the competencies will signify preparation for successful transition into nursing practice and further professional development.

Admission Criteria

High school diploma or GED is required for the Associate in Applied Science degree in Nursing. Applicants must signify that they meet this requirement by providing high school diploma/transcripts or GED completion OR by signing the nursing application page containing the 'Declaration of High School Graduation or GED completion.' In some instances, high school diploma/transcripts or proof of GED completion may be required.

Formal application and admission to the program is required. There are limited spaces available in the Nursing program. Only students who have completed all of the general education and introductory courses noted above may have their name added to the queue of those waiting for an available space in a cohort.

A passing score on a nursing program admission test is required to complete an application. Successful completion of a nurse assistant course (NCE150 or NUR158 or equivalent as determined by the Nursing Director or designee) or current active AZ certification or licensure as a Nurse Assistant in good standing is required to complete an application.

Applicants for Advanced Placement must receive a passing score on a practical nursing content exam for placement into Block 3. The final placement decision rests with the Nursing Program Chair at the college to which the student is accepted.

The Nursing Program Chair reserves the right to deny acceptance of an admission application if the applicant was previously dismissed for issues relating to academic integrity, unsafe patient care, and/or two (2) or more failures from any nursing program.

All applicants holding or receiving a certificate or license as a Nursing Assistant and/or license as a Practical Nurse must remain in good standing with the Regulatory Board. Once enrolled, students receiving any disciplinary actions against their certificate or license must notify the Nursing Program Chair within five (5) school days. The Nursing Program Chair reserves the right to restrict the student's participation in clinical experiences and involvement in patient care until the certificate and/or license is valid and unrestricted.

Program Requirements

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		0-4	
BIO156	Introductory Biology for Allied Health		
BIO181	General Biology (Majors) I		
One year of high school biology			
BIO201	Human Anatomy and Physiology I	4	
Select one of the following:		0-4	
CHM130 & 130LL	Fundamental Chemistry and Fundamental Chemistry Laboratory		

CHM130AA	Fundamental Chemistry with Lab		
One year of high school chemistry			
NUR152	Nursing Theory and Science I	9	
NUR172	Nursing Theory and Science II	9	
NUR252	Nursing Theory and Science III	9	
NUR283	Nursing Theory and Science IV	9	
General Education			
Core			
<i>First-Year Composition</i> ¹			
ENG101	First-Year Composition	3	
or ENG107	First-Year Composition for ESL		
ENG102	First-Year Composition	3	
or ENG108	First-Year Composition for ESL		
<i>Oral Communication</i>			
Waived		0	
<i>Critical Reading</i>			
Select one of the following:		0-3	
CRE101	College Critical Reading and Critical Thinking		
OR Equivalent as indicated by assessment			
<i>Mathematics</i>			
Select one of the following:		3-5	
MAT140	College Mathematics		
MAT141	College Mathematics		
MAT142	College Mathematics		
Satisfactory completion of higher level math course			
Distribution			
<i>Humanities, Arts and Design</i>			
Any approved general education course(s) from the Humanities, Arts and Design area		2	
<i>Social and Behavioral Sciences</i>			
PSY101	Introduction to Psychology	3	
<i>Natural Sciences</i>			
BIO202 & BIO205	Human Anatomy and Physiology II and Microbiology	8	
Total Credits		62-75	

¹ Three credits of First Year Composition are met by ENG101 First-Year Composition or ENG107 First-Year Composition for ESL in Program Prerequisites area

Physical Sciences & Engineering

- Artificial Intelligence and Machine Learning, Associate in Applied Science (p. 195)
- Artificial Intelligence and Machine Learning, Certificate of Completion (p. 196)

Artificial Intelligence and Machine Learning, Associate in Applied Science



Associate in Applied Science : AAS 3891

61-76 Credits

Program Contact

Habib Matar | habib.matar@cg.edu

Program Description

The Associate in Applied Science (AAS) in Artificial Intelligence and Machine Learning focuses on building machine learning models that can be used for predicting, making decisions and enhancing human capabilities. The program prepares students for entry level positions in a variety of fields using artificial intelligence, including the information technology, automotive, healthcare, aerospace, industrial, and manufacturing industries. Program content includes an introduction to artificial intelligence and machine learning, natural language processing, computer vision, and artificial intelligence for business solutions and other applications. The curriculum also includes coursework in computer programming, math, engineering, and statistics.

Program Notes

Students must earn a grade of C or better for all courses required within the program. Overall program minimum GPA = 3.00.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AIM100	Introduction to Artificial Intelligence	3	_____
AIM110	Introduction to Machine Learning	3	_____

AIM210	Natural Language Processing	3	_____
AIM220	Artificial Intelligence for Computer Vision	3	_____
AIM230	Artificial Intelligence for Business Solutions	3	_____
AIM240	Artificial Intelligence Capstone Project	3	_____
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
May be waived by permission of the Program Director			_____
Select one of the following:		3	_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database		_____
CIS156	Python Programming: Level I	3	_____
ECE102	Engineering Analysis Tools and Techniques	2	_____
ECE103	Engineering Problem Solving and Design	2	_____
FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____
MAT206	Elements of Statistics	3	_____
MAT225	Elementary Linear Algebra	3	_____
Restricted Electives			_____
Select a programming language from below that best aligns with academic and professional goals (to complete the minimum total program credits required for this degree) in one of the following areas:		0-3	_____
CIS150	Programming Fundamentals		_____
CIS150AB	Object-Oriented Programming Fundamentals		_____

CIS159	Visual Basic Programming I	_____
CIS162++	Any C Programming: Level I course	_____
CIS163AA	Java Programming: Level I	_____
CIS165++	Any Mobile Application Development course	_____
CSC100++	Introduction to Computer Science (C++)	_____
CSC110++	Introduction to Computer Science (Java)	_____

General Education**Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

Oral Communication

Select one of the following:		3	_____
COM100	Introduction to Human Communication		_____
COM110	Interpersonal Communication		_____
COM225	Public Speaking		_____
COM230	Small Group Communication		_____

Any approved General Education course from the Oral Communication area

Critical Reading

Complete one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____

Or equivalent as indicated by assessment

Mathematics

Any approved general education course in the Mathematical Applications (MA) area (that serves as a prerequisite for) MAT22+ 0-9		4-14	_____
MAT220	Calculus with Analytic Geometry I		_____
or MAT221	Calculus with Analytic Geometry I		_____

Distribution*Humanities, Arts and Design*

Any approved general education course(s) from the Humanities, Arts and Design area	3	_____
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Social and Behavioral Sciences

Any approved general education course(s) in the Social and Behavioral Sciences area ¹	3	_____
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Natural Sciences

Any approved general education course(s) in the Natural Sciences area	4	_____
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Total Credits	61-76	_____
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¹ Recommend PSY101 Introduction to Psychology or SOC101 Introduction to Sociology

Artificial Intelligence and Machine Learning, Certificate of Completion



Certificate of Completion: 5897N

21-36 Credits

Program Contact

Habib Matar | habib.matar@cgc.edu

Program Description

The Certificate of Completion (CCL) in Artificial Intelligence and Machine Learning focuses on building machine learning models that can be used for predicting, making decisions and enhancing human capabilities. The program provides the industry professional with the knowledge and skills used in a variety of fields using artificial intelligence, including the information technology, automotive, healthcare, aerospace, industrial, and manufacturing industries. Program content includes an introduction to artificial intelligence and machine learning, natural language processing, computer vision, and artificial intelligence for business solutions and other applications. The curriculum also includes coursework in computer programming, math, and statistics.

Program Notes

This program is not eligible for Title IV Federal Financial Aid.

This Certificate of Completion (CCL) is a closed program that is available to industry professionals with the requisite industry experience or those with an associate or bachelor's degree in a related field. Speak to a Program Director for additional information.

Students must earn a grade of C or better for all courses required within the program.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
AIM100	Introduction to Artificial Intelligence	3	_____
AIM110	Introduction to Machine Learning	3	_____
AIM210	Natural Language Processing	3	_____
AIM220	Artificial Intelligence for Computer Vision	3	_____
AIM230	Artificial Intelligence for Business Solutions	3	_____
AIM240	Artificial Intelligence Capstone Project	3	_____
Select one of the following:		0-3	_____
CIS105	Survey of Computer Information Systems		_____
May be waived by permission of the Program Director			
Select one of the following:		0-3	_____
CIS119DO	Introduction to Oracle: SQL		_____
CIS276DA	MySQL Database		_____
CIS276DB	SQL Server Database (May be waived by permission of the Program Director)		_____
Select one of the following:		0-3	_____
CIS156	Python Programming: Level I		_____
May be waived by permission of the Program Director			
Select one of the following:		0-6	_____
MAT14+	Any College Mathematics course		_____
MAT15+	Any College Algebra/ Functions course		_____
MAT187	Precalculus		_____
Appropriate District placement			
Permission of Department/ Division Chair			

MAT206	Elements of Statistics	3	_____
Total Credits		21-36	_____

Social & Behavioral Sciences

- Early Childhood Education, Associate in Applied Science (p. 197)
- Early Childhood Education, Certificate of Completion (p. 199)
- Foundations of Early Childhood Education, Certificate of Completion (p. 201)

Early Childhood Education, Associate in Applied Science



EDUCATION

Associate in Applied Science: AAS 3186

60-74 Credits

Program Contact

Joni Burris | 480-857-5526 | j

(jennifer.peterson@cgcc.edu)oni.burris@cgcc.edu (joni.burris@cgcc.edu)

Program Description

The Associate in Applied Science (AAS) in Early Childhood Education (ECE) program is designed to prepare individuals for employment as early childhood professionals in a variety of educational settings. The AAS program includes courses based on current ECE theory and practice as well as general education classes to broaden a student's base of knowledge. Certificates of Completion are also available.

Program Notes

Students must earn a grade of "C" or better for all courses within the program. Overall program minimum GPA = 2.00.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following options:		2-3	_____
Option 1			
CFS101AH & ECH281	Art Activities for the Young Child and Movement/ Music for the Young Child		_____
Option 2			
ECH128	Early Learning: Play And The Arts		_____

Option 3 _____

EED210	Creative and Cognitive Play	_____
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Select one of the following options: 3 _____

Option 1 _____

CFS123 & CFS125 & ECH280	Health and Nutrition in Early Childhood Settings and Safety In Early Childhood Settings and Food Experiences With Young Children	_____
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Option 2 _____

EED215	Early Learning: Health, Safety, Nutrition and Fitness	_____
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Select one of the following options: 2-3 _____

Option 1 _____

CFS/ ECHINSTRUCT TIME269	Child Care (Seminar)	_____
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CFS/ ECHINSTRUCT TIME287	Professional Development in Early Childhood Education	_____
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Option 2 _____

EED255	Portfolio Development and Writing for the Profession	_____
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Select one of the following options: 3 _____

Option 1 _____

CFS/ ECHINSTRUCT TIME271	Arranging the Environment	_____
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CFS282	Mainstreaming The Young Child With a Disability	_____
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ECH282	Discipline/ Guidance Of Child Groups	_____
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Option 2 _____

EED212	Guidance, Management and the Environment	_____
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Select one of the following options: 2-3 _____

Option 1 _____

CFS/ ECHINSTRUCT TIME284AB	Early Childhood Teaching Internship	_____
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Option 2 _____

Select one of the following: _____

EED260 & EED261	Early Childhood Infant/Toddler Internship and Early Childhood Preschool Internship	_____
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CFS/ ECHINSTRUCT TIME284AA	Early Childhood Teaching Internship	_____
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Select one of the following options: 2-3 _____

Option 1 _____

ECH140 & ECH270	Learning Made Visible Through Documentation and Observing Young Children	_____
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Option 2 _____

EED280	Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth to Age 8	_____
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Select one of the following options: 3-4 _____

Option 1 _____

CFS/ ECHINSTRUCT TIME273	Math for the Young Child	_____
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CFS/ ECHINSTRUCT TIME275	Literacy (Development and the Young Child)	_____
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ECH272	Science For The Young Child	_____
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ECH279	Early Childhood Curriculum Development	_____
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Option 2 _____

EED278	Early Learning: Curriculum And Instruction - Birth/Preschool	_____
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EED200	Foundations of Early Childhood Education	3	_____
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EED222	Introduction to the Exceptional Young Child: Birth to Age Eight	3	_____
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EED225	Language and Literacy in the Context of Culture and Relationships	3	_____
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FYE101	Introduction to College, Career and Personal Success	1-3	_____
or FYE103	Exploration of College, Career and Personal Success		_____

Restricted Electives

Students must select nine (9) to twelve (12) credits from the following to complete the minimum total program credits required for this degree. Students are encouraged to consult with a faculty advisor or student services analyst to identify the requirements for their desired academic and professional goals:

CFS+++	Any CFS Child/Family Studies course(s)		_____
ECH+++	Any ECH Early Childhood Education course(s)		_____
EDU+++	Any EDU Education course(s)		_____
EED+++	Any EED Early Education course(s)		_____
FCS+++	Any FCS Family and Consumer Science course(s)		_____
ITD+++	Any ITD Infant/Toddler Development course(s)		_____

General Education**Core***First-Year Composition*

ENG101	First-Year Composition	3	_____
or ENG107	First-Year Composition for ESL		_____
ENG102	First-Year Composition	3	_____
or ENG108	First-Year Composition for ESL		_____

Oral Communication

Any approved General Education course from the Oral Communication area ¹

Critical Reading

Select one of the following:		0-3	_____
CRE101	College Critical Reading and Critical Thinking		_____
or equivalent by assessment			_____

Mathematics²

Select one of the following:		3-6	_____
MAT112	Mathematical Concepts and Applications		_____
OR satisfactory completion of a higher-level mathematics course			_____

Distribution*Humanities, Arts and Design*

Any approved general education course(s) from the Humanities, Arts and Design area ³

Social and Behavioral Sciences

Fulfilled by Required Courses ⁴

Natural Sciences

Any approved general education course(s) in the Natural Sciences area

Total Credits 60-74 _____

¹ Note: COM225 Public Speaking is recommended for students who wish to transfer to the BAE at ASU.

² Note: MAT14+ College Mathematics or any approved general education course in the Mathematical Application [MA] area may be required for students intending to transfer to a bachelor's degree program.

³ Recommend: EDU291 Children's Literature/ENH291 Children's Literature or EDU292 The Art of Storytelling/HUM292 The Art of Storytelling/STO292 The Art of Storytelling.

⁴ Fulfilled by EDU222 Introduction to the Exceptional Learner or EED222 Introduction to the Exceptional Young Child: Birth to Age Eight in Required Courses area.

Early Childhood Education, Certificate of Completion



EDUCATION

Certificate of Completion: CCL 5056

36 Credits

Program Contact

Joni Burris | 480-857-5526 | joni.burris@cg.edu (joni.burris@cg.edu)

Program Description

The Certificate of Completion (CCL) in Early Childhood Education program is designed to prepare students for employment as early childhood teachers in a variety of educational programs. Students learn effective teaching skills as they apply developmentally appropriate early childhood educational theory in the classroom setting. Courses have been selected with a focus on developing an educational career ladder. An Associate in Applied Science (AAS) in Early Childhood Education is also available and includes additional early childhood electives and general education classes to broaden the student's base of knowledge.

Program Notes

Students must earn a grade of “C” or better for all courses within the program. Overall program minimum GPA = 2.00.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination.

++ indicates any suffixed course may be selected.

Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		3	_____
CFS/ ECHINSTRUCTION TIME176	Child Development		_____
CFS235	Developing Child: Theory into Practice, Prenatal to Age Eight		_____
EED205	The Developing Child: Prenatal to Age Eight		_____
EED200	Foundations of Early Childhood Education	3	_____
Select one of the following options:		3	_____
Option One			
EED212	Guidance, Management and the Environment		_____
Option Two			
CFS/ ECHINSTRUCTION TIME271	Arranging the Environment		_____
CFS282	Mainstreaming The Young Child With a Disability		_____
ECH282	Discipline/ Guidance Of Child Groups		_____
Select one of the following options:		3	_____
Option One			
CFS123	Health and Nutrition in Early Childhood Settings		_____
CFS125	Safety In Early Childhood Settings		_____
ECH280	Food Experiences With Young Children		_____
Option Two			

EED215	Early Learning: Health, Safety, Nutrition and Fitness		_____
Select one of the following options:		2-3	_____
Option One			
CFS101AH	Art Activities for the Young Child		_____
ECH281	Movement/Music for the Young Child		_____
Option Two			
ECH128	Early Learning: Play And The Arts		_____
Option Three			
EED210	Creative and Cognitive Play		_____
EED222	Introduction to the Exceptional Young Child: Birth to Age Eight	3	_____
or EDU222	Introduction to the Exceptional Learner		_____
Select one of the following options:		3-4	_____
Option One			
EED278	Early Learning: Curriculum And Instruction - Birth/Preschool		_____
Option Two			
ECH272	Science For The Young Child		_____
CFS/ ECHINSTRUCTION TIME273	Math for the Young Child		_____
CFS/ ECHINSTRUCTION TIME275	Literacy (Development and the Young Child		_____
ECH279	Early Childhood Curriculum Development		_____
EED225	Language and Literacy in the Context of Culture and Relationships	3	_____
Select one of the following options:		2-3	_____
Option One			
ECH140	Learning Made Visible Through Documentation		_____
ECH270	Observing Young Children		_____
Option Two			

EED280	Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth to Age 8	_____
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Select one of the following options: 2-3 _____

Option One _____

EED255	Portfolio Development and Writing for the Profession	_____
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Option Two _____

CFS/ ECHINSTRUCTO TIME269	Child Care Seminar	_____
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CFS/ ECHINSTRUCTO TIME287	Professional Development in Early Childhood Education	_____
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Select one of the following options: 2-3 _____

Option One _____

CFS/ ECHINSTRUCTO TIME284AB	Early Childhood Teaching Internship	_____
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Option Two _____

EED260	Early Childhood Infant/Toddler Internship	_____
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EED261	Early Childhood Preschool Internship	_____
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CFS/ ECHINSTRUCTO TIME284AA	Early Childhood Teaching Internship	_____
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Restricted Electives _____

Students must select two to seven credits from the following courses to meet a minimum of 36 credits for the certificate. Cannot be shared with Required Courses area. 2-7 _____

Students must select two to seven credits from the following courses to meet a minimum of 36 credits for the certificate. Cannot be shared with Required Courses area.

CFS+++	Any CFS Child/Family Studies course(s)	_____
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ECH+++	Any ECH Early Childhood Education course(s)	_____
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EDU+++	Any EDU Education course(s)	_____
--------	-----------------------------	-------

EED+++	Any EED Early Education course(s)	_____
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FCS+++	Any FCS Family and Consumer Science course(s)	_____
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ITD+++	Any ITD Infant/Toddler Development course(s)	_____
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Total Credits 36 _____

Foundations of Early Childhood Education, Certificate of Completion



Certificate of Completion: CCL 5054

18-19 Credits

Program Contact

Joni Burris | 480-857-5526 | joni.burris@cgc.edu (joni.burris@cgc.edu)

Program Description

The Certificate of Completion (CCL) in Foundations of Early Childhood Education is designed to prepare students with foundational knowledge regarding the growth and development of the young child. Topics include cognitive and physical development of the young child, language acquisition, curriculum development, health and safety guidelines, business procedures, and family/community relationship building. This CCL is embedded (can be used to fulfill part of the requirements) in a second available CCL, Early Childhood Education. Both CCLs are embedded (can be used to fulfill requirements) in the Associate in Applied Science (AAS) in Early Childhood Education.

Program Notes

Students must earn a grade of "C" or better for all courses within the program. Overall program minimum GPA = 2.00.

For some employment and field experiences (including internship courses), students will be required to have a current Identity Verified Print (IVP) Fingerprint Clearance Card and a current TB vaccination.

++ indicates any suffixed course may be selected.

Program Requirements

Code	Title	Credits	Semester
Required Courses			
Select one of the following:		3	_____
CFS/ ECHINSTRUCTO TIME176	Child Development	_____	_____
CFS235	Developing Child: Theory into Practice, Prenatal to Age Eight	_____	_____

EED205	The Developing Child: Prenatal to Age Eight		_____
EED200	Foundations of Early Childhood Education	3	_____
Select one of the following options:		3	_____
Option One			
EED212	Guidance, Management and the Environment		_____
Option Two			
CFS/ ECHINSTRUCTO TIME271	Arranging the Environment		_____
CFS282	Mainstreaming The Young Child With a Disability		_____
ECH282	Discipline/ Guidance Of Child Groups		_____
Select one of the following options:		3	_____
Option One			
CFS123	Health and Nutrition in Early Childhood Settings		_____
CFS125	Safety In Early Childhood Settings		_____
ECH280	Food Experiences With Young Children		_____
Option Two			
EED215	Early Learning: Health, Safety, Nutrition and Fitness		_____
Select one of the following options:		2-3	_____
Option One			
CFS101AH	Art Activities for the Young Child		_____
ECH281	Movement/Music for the Young Child		_____
Option Two			
ECH128	Early Learning: Play And The Arts		_____
Option Three			
EED210	Creative and Cognitive Play		_____
EDU222	Introduction to the Exceptional Learner	3	_____
or EED222	Introduction to the Exceptional Young Child: Birth to Age Eight		_____
Select one of the following:		1	_____

CFS/ ECHINSTRUCTO TIME284AA	Early Childhood Teaching Internship		_____
EED260	Early Childhood Infant/Toddler Internship		_____
EED261	Early Childhood Preschool Internship		_____
Total Credits		18-19	_____

Special Programs

Continuing Education and Workforce Development

Chandler-Gilbert Community College offers life-long learning opportunities through non-credit courses. The Continuing Education Department offers courses designed to enhance personal and professional development through classroom instruction as well as online learning.

Workforce development at CGCC brings together employers, employees and education. Instruction is either at the company, at the college, or online. Students can enroll in CTE programs or take courses to learn skills needed by current or future employers.

To continue learning with flexible courses year-round, call 480#857-5500.

Fitness, Wellness and Recreation

CGCC offers a variety of fitness, wellness, and recreation opportunities on the Pecos and Williams Campus.

Fitness Center

The Pecos Fitness Center features state-of-the-art cardiovascular training equipment, Life Fitness and Cybex weight training machines, and a complete free-weight area with Olympic style platforms and bumper plates. The Fitness Center is equipped with TRX trainers, plyometric boxes, medicine balls, stability balls, bands and hurdles for complete performance training. Whether you are an elite athlete or a week-end warrior we have all of the equipment that you need.

All members of the Pecos Fitness Center are offered personalized instruction, a complete fitness assessment, and body composition analysis from our degreed and certified instructors. Fitness Center members also have access to amenities such as locker rooms and shower facilities.

To use the Fitness Center, all students must be enrolled in a credit (PED115) or non-credit (Fitness 600-100) Lifetime Fitness course. PED115 students also have access to Group Fitness Courses. Additional information is available by calling the Pecos Campus Fitness Center at 480#732#7200.

Group Fitness Classes

Chandler-Gilbert also has a wide variety of group fitness classes open to students. All Group Fitness classes are 1-credit classes and have the PED101 prefix. Students may choose from Boot Camp Fitness, Zumba, Pilates, Yoga, Restorative Yoga, Stretch and Relaxation, Tai Chi, Karate and other classes.

To see a complete list of group fitness classes being offered this semester, please see the current schedule of classes.

Students, faculty, staff, and community members interested in using the Fitness Center or taking a group fitness class can contact the Pecos Campus Fitness Center at 480#732#7200 for more information.

Honors Program

The CGCC Honors Program provides the opportunity for academically advanced students to participate in challenging and rewarding educational experiences. The purpose of the Honors Program is to foster greater depth of thought in reading, writing, and discussion with faculty and guest lecturers, which will better prepare Honors students to complete baccalaureate degrees or to begin their careers. A variety of academic scholarships are available to eligible Honors Program students.

Honors students enjoy:

- Scholarships
- Special recognition on transcripts and diplomas
- Cultural and social activities, such as the Honors
- Forum Lecture Series and other experiential learning activities
- Enhanced intellectual growth through Honors courses and projects

Students with a cumulative grade point average of 3.25 or higher and have earned at least 12 credit hours of Maricopa Community College coursework are invited to apply as an Honors Achievement Scholar. Recent high school graduates with a 3.0 GPA from attending an accredited Maricopa County high school are invited to apply to the Honors Program as a Presidents' Scholar. Other requirements may apply at the time of application.

For full details and specific requirements about the Honors Program or Honors scholarships, visit www.cgc.edu/honors (<http://www.cgc.edu/honors/>) or contact the Honors Office at 480#732#7252.

Performing Arts

The Performing Arts Program at CGCC offers an integrated approach to dance, theatre, and music. The classes, while separate, are coordinated within the area to provide students a broader base and more versatility in their performing arts education.

Students can explore all aspects of the performing arts at CGCC. The department offers a transfer program to four-year institutions in music performance, music education, music theory, dance education, dance performance, theater education, theater performance, technical theater and musical theater. Two-year degrees are offered in dance and theatre and music business as well as a certificate of completion in music business. Preparing for life after CGCC is the focus of the program and student success is the goal of the dedicated faculty. There are many opportunities for students to develop skills leading to work in the performing arts, and related areas.

The Arnette Scott Ward Performing Arts Center (the PAC) is home to the CGCC's music, theatre, and dance faculty and staff. It houses a costume shop, scene shop, and its heart, a 299-seat performance venue. In addition, the program has ample teaching facilities including two dance studios, a revitalized black box theater, an instrumental music room, choir room, music library, rehearsal rooms and studio recording space.

For more information on performing arts at CGCC, visit www.cgc.edu/arts (<https://catalog.cgc.eduhttp://www.cgc.edu/arts/>) or call:

Contact	Phone Number
Dance and Musical Theatre	480-732-7136
Instrumental Music	480-732-7290
Music Business	480-857-5182
Theatre	480-732-7040
Vocal Music and Musical Theatre	480-732-7144

COURSE DESCRIPTIONS

All courses offered by the Maricopa Community Colleges appear in a standardized format using six common course elements. Students are encouraged to become familiar with the course elements included in a course description. Please see “How to Read Course Descriptions”.

The courses that follow are offered at Chandler-Gilbert Community College (CGCC). Not all courses in this section will necessarily be offered during any given school year. Not all courses listed in the required courses and/or restricted elective areas of shared occupational programs are offered at CGCC. Please check the current class schedule for course availability. The intent of the Course Description section is to enable students to review courses that are available at CGCC.

How to Read Course Descriptions

All courses offered at the Maricopa Community Colleges are identified by a three-letter abbreviation of the academic subject plus a three-digit number (e.g., ENG101 First-Year Composition identifies an English course). Course descriptions are listed alphabetically and in ascending numerical order. Each course listing has six common elements:

- a. Course Prefix: Three-letter subject code abbreviation indicating discipline or area of study (e.g., ENG for English).
- b. Course Number: Three-digit number assigned to indicate sequence and academic level. Numbers range from 001-299. Courses numbered below 100 are offered for the purpose of strengthening skills and knowledge and cannot be applied toward degrees awarded by Maricopa Community Colleges. These courses cannot be transferred to four-year institutions. First-year courses are generally identified with 100-level numbers. Second-year courses are generally identified with 200-level numbers.
- c. Course Title: Identifying name of the course. May also indicate course level (e.g., College Mathematics or Beginning Spanish Conversation I).
- d. Course Description: Brief statement describing the content of the course. Each instructor’s course syllabus gives additional information, including objectives and grading criteria.
- e. Course Credit Hours: College credit hours awarded for satisfactory completion of the course.
- f. Course Prerequisites and/or Corequisites: Requirements that must be met before or, in the case of corequisites, at the same time as enrollment in a course. Not all courses have prerequisites or corequisites.
- g. Shared Unique Number (SUN) System: The Shared Unique Number (SUN) System is a college course numbering system designed to help students locate and enroll in courses that have direct equivalents for transfer among Arizona’s public community colleges and three state universities.

Example:

- (1) = Course Prefix
- (2) = Course Number
- (3) = Course Title
- (4) = Course Description
- (5) = Course Credits
- (6) = Course Prerequisites and/or Corequisites
- (7) = Shared Unique Number (SUN) System

* = Periods: Weekly time in class during a typical 16-week semester; 50 minutes = 1 period.

(1) **ENG** (2) **101** / (5) **3 credits** / * **3 periods**
(7) **ENG 1101**

(3) **First-Year Composition**

(4) **Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total.**

(6) **Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 Preparatory Academic Writing III or ESL097 Preparatory Academic Writing III for ESL.**

Information Regarding Special Courses Not Listed in the College Catalog

Cooperative Education (Courses Numbered 296)

Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Permission of Program Director or instructor. Corequisites: Must be concurrently enrolled in at least one class related to job/co-op subject area; must maintain an enrollment ratio of two (2) hours of credit in other courses for every one (1) hour of Cooperative Education credit (excluding radio and television); a maximum of sixteen (16) hours of Cooperative Education credit is allowable in a college program.

Special Projects (Courses Numbered 298)

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment are made available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or instructor.

Shared Unique Number (SUN) System

The Shared Unique Number (SUN) System helps students identify courses that will directly transfer among Arizona’s community colleges and three public universities. Using the SUN System, students can easily search for and enroll in courses that offer direct equivalency at other Arizona colleges and universities. SUN courses have their own unique course number and prefix listed alongside each college’s course number. Additional information about SUN System can be found at <https://www.manula.com/manuals/aztransfer/handbook-policy-manual/1/en/topic/shared-unique-number-sun-system> (<https://www.manula.com/manuals/aztransfer/handbook-policy-manual/1/en/topic/shared-unique-number-sun-system/>)

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- Administration of Justice Studies (AJS) (p. 208)
- Aeronautics (AET) (p. 211)
- African American Studies (AFR) (p. 215)
- Aircraft/Maintenance Technology (AMT) (p. 215)
- American Indian Studies (AIS) (p. 216)

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- Astronomy (AST) (p. 227)
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I

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Accounting (ACC)**ACC105 / Payroll, Sales and Property Taxes****3 Credits / 3.0 Periods for Lecture**

Tax reporting for payroll, sales, and personal property. Prerequisites: None.

Division: Business and Computing Studies

ACC107 / Bookkeeping Theory And Practice**4 Credits / 5.0 Periods for Lecture & Lab**

Fundamental accounting practices; application to retail stores, professional firms, and personal service operations. Prerequisites: None.

Division: Business and Computing Studies

ACC110 / Understanding And Using Accounting Systems**3 Credits / 3.0 Periods for Lecture & Lab**

Develops basic comprehension of the balance sheet, income statement, and equity and cash flow statements. Explores usage of specialized journals and subsidiary ledgers in a computerized system. Studies the impact of various transactions on an enterprise, including payroll, receivables, payables, inventory, cash and credit card receipts.

Prerequisites: None.

Division: Business and Computing Studies

ACC111 / Accounting Principles I**3 Credits / 3.0 Periods for Lecture**

Fundamental theory of accounting principles and procedures.

Prerequisites: None.

Division: Business and Computing Studies

ACC112 / Accounting Principles II**3 Credits / 3.0 Periods for Lecture**

Continuation of the fundamental theory of accounting principles and procedures, including interpretation of general purpose financial statements. Prerequisites: ACC111 with a grade of "C" or better, or permission of Department or Division.

Division: Business and Computing Studies

ACC115 / Computerized Accounting**3 Credits / 3.0 Periods for Lecture & Lab**

Understanding of fundamental accounting principles and mastery of an accounting information systems including the general ledger, accounts receivable, accounts payable and payroll. Prerequisites: None.

Division: Business and Computing Studies

ACC121 / Individual Tax Preparation**3 Credits / 3.0 Periods for Lecture & Lab**

Theory and practice of accounting for individual taxation. Prerequisites: None.

Division: Business and Computing Studies

ACC211 / Financial Accounting**3 Credits / 3.0 Periods for Lecture**

Introduction to theory and practice in the preparation and interpretation of general purpose financial statements. Prerequisites: None.



SUN# ACC 2201

Division: Business and Computing Studies



ACC212 / Managerial Accounting**3 Credits / 3.0 Periods for Lecture**

Development and analysis of accounting information for managerial planning and control. Prerequisites: A grade of "C" or better in (ACC111 and ACC112), or ACC211, and (CIS105 or permission of Department or Division).



SUN# ACC 2202

Division: Business and Computing Studies

ACC216 / Fraud Examination**3 Credits / 3.0 Periods for Lecture**

Fundamental theory of fraud examination methodology to detect and prevent accounting fraud. Prerequisites: A grade of "C" or better in (ACC230 or ACC112 or ACC211) or permission of Department or Division. Course Notes: ACC216 can be used for continuing education credits for accountants.

Division: Business and Computing Studies

ACC219 / Intermediate Accounting I**3 Credits / 3.0 Periods for Lecture**

Continuation of the theory and practice of financial accounting, applicable to assets, liabilities, equity related problems of income determination and financial reporting. Prerequisites: A grade of C or better in ACC212 or ACC240 or permission of Department or Division.

Division: Business and Computing Studies

ACC221 / Tax Accounting**3 Credits / 3.0 Periods for Lecture**

Theory and practice of accounting for personal, corporate, and non-corporate taxation. Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division.

Division: Business and Computing Studies

ACC222 / Payroll Accounting**3 Credits / 3.0 Periods for Lecture**

Payroll records for businesses required by federal and state laws.

Prerequisites: A grade of C or better in ACC111 or ACC211 or permission of Department or Division.

Division: Business and Computing Studies

ACC224 / Tax Practice Administration and Business Entity Analysis**3 Credits / 3.0 Periods for Lecture**

Federal income tax representation, practices, and procedures, including trust and estate income tax, exempt organizations, and retirement plans.

Prerequisites: A grade of C or better in ACC121 or ACC221.

Division: Business and Computing Studies

ACC230 / Uses of Accounting Information I**3 Credits / 3.0 Periods for Lecture**

Introduction to the uses of accounting information for internal and external purposes with emphasis on financial statement analysis.

Prerequisites: A grade of C or better in (ACC111 or ACC211) or [(ENG101 or ENG107) and MAT151 and CRE101] or (appropriate District English, Reading, and Math placement).

Division: Business and Computing Studies

ACC240 / Uses of Accounting Information II**3 Credits / 3.0 Periods for Lecture**

Introduction to the uses of accounting information for internal and external purposes with emphasis on analysis for use by management.

Prerequisites: A grade of C or better in ACC230.

Division: Business and Computing Studies

ACC270AB / Accounting Internship**2 Credits / 2.0 Periods for Laboratory**

Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 160 hours per semester.

Prerequisites: Permission of Department or Division.

Division: Business and Computing Studies

ACC270AC / Accounting Internship**3 Credits / 3.0 Periods for Laboratory**

Accounting work experience in a business or industry. Eighty hours of designated work per credit totaling 240 hours per semester.

Prerequisites: Permission of Department or Division.

Division: Business and Computing Studies

Administration of Justice Studies (AJS)

AJS101 / Introduction to Criminal Justice

3 Credits / 3.0 Periods for Lecture

An introduction to crime and society's responses to it. Examines the nature and causes of crime, the criminal law, constitutional safeguards, and the organization and operation of the criminal justice system including the police, courts, jails, prisons, probation and parole departments, and community corrections agencies. Covers the history of the criminal justice system, terminology and career opportunities.

Prerequisites: None.



SUN# AJS 1101

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Health Science and Public Service

AJS102 / Peace Officer Certification I

17 Credits / 30.0 Periods for Lecture & Lab

Training program for limited authority peace officers, leading to certification by the Arizona Peace Officer Standards and Training Board (AzPOST - The statutory agency for certifying peace officers - all person with arrest powers - in Arizona.) Includes introduction to Law Enforcement, Law and legal matters, patrol procedures, traffic control, and police proficiency skills. Prerequisites: Student must comply with AzPOST employment standards for peace officers.

Division: Aviation and Applied Technology

AJS109 / Substantive Criminal Law

3 Credits / 3.0 Periods for Lecture

Covers philosophy of legal sanctions and historical development from the common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definition of crimes, common defenses utilized. Includes specific offenses and the essential elements of each offense. Prerequisites: None.

Division: Health Science and Public Service

AJS113 / Criminal Justice Crime Control Policies and Practices

3 Credits / 3.0 Periods for Lecture

Focus on changing the distribution of crime opportunities rather than offender motivation. Topics include application of situational crime prevention strategies, problem-oriented crime control approaches, hot spots policing, defensible space, and crime prevention through defensible space. Prerequisites: None.

Division: Health Science and Public Service

AJS119 / Computer Applications in Justice Studies

3 Credits / 4.0 Periods for Lecture & Lab

Provides literacy in microcomputer applications in major areas of the criminal justice system. Examines availability and uses of current software packages in criminal justice work. Provides hands-on experience with appropriate integrated software packages pertaining to justice studies. Prerequisites: None.

Division: Health Science and Public Service

AJS123 / Ethics and the Administration of Justice

3 Credits / 3.0 Periods for Lecture

Introduces and explores ethical issues and the justice system. Focuses on ethics and the law, the police, courts and corrections. Reviews ethical theory, concepts and practices as they relate to administration of justice. Explores issues of how media/social media shape ethics. Encourages critical thinking and value decision making in criminal justice system situations. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Health Science and Public Service

AJS124 / Correctional Institutions

3 Credits / 3.0 Periods for Lecture

An examination of correctional institutions with an emphasis on personnel and security measures, care and treatment programs and institutional planning. The criminal justice system and matters of custody and treatment. Inmate subcultures, and organized crime in correctional institutions and jails. Prerequisites: None.

Division: Health Science and Public Service

AJS139 / Emergency Response to Terrorism

3 Credits / 3.0 Periods for Lecture

Fundamentals of emergency response to suspected terrorist events. Historical perspective of terrorist activities and methods by which responders can identify and protect themselves and the public from these threats. Coordination of responding agencies. Prerequisites: None.

Division: Health Science and Public Service

AJS147 / Emergency Preparedness

3 Credits / 3.0 Periods for Lecture

Emergency preparedness related to natural and man-made disasters. Planning concepts and the planning process; awareness and education programs and strategies for the general community as well as business and industries. Prerequisites: None.

Division: Health Science and Public Service

AJS148 / Fundamentals of Emergency Management**3 Credits / 3.0 Periods for Lecture**

Emergency management systems including career opportunities, function, tasks and responsibilities of the emergency management program manager, role of the emergency manager in mitigation, preparedness, response, and recovery. Past civil defense and current emergency management systems since evolution from World War II. Prerequisites: None.

Division: Health Science and Public Service

AJS149 / Hazard Mitigation**3 Credits / 3.0 Periods for Lecture**

Knowledge and skills required to develop programs to reduce losses from future disasters, emergencies, and other extreme events caused by natural and man-made hazards. Prerequisites: None.

Division: Health Science and Public Service

AJS151 / Firearms I**1 Credit / 1.0 Periods for Lecture & Lab**

Moral aspects, legal provisions, safety precautions and restrictions covering the use of firearms, and the firing of sidearms. Prerequisites: None.

Division: Health Science and Public Service

AJS153 / Firearms II/Handguns**1 Credit / 1.0 Periods for Lecture & Lab**

Advanced familiarization with handguns. Variations of basic shooting stance. Legal and moral repercussions of self-defense. Includes range practice. Prerequisites: A grade of C or better in AJS151 or equivalent certified firearms training as reviewed by the Department.

Division: Health Science and Public Service

AJS154 / Firearms III/Long Weapons**1 Credit / 1.0 Periods for Lecture & Lab**

Familiarization with different types of long weapons and associated ammunition. Emphasis on safety techniques for use and storage of weapons. Limited use of range for practice. Prerequisites: None.

Division: Health Science and Public Service

AJS162 / Domestic Violence**3 Credits / 3.0 Periods for Lecture**

Explores domestic violence as a social problem within the United States from historical, cultural, political, legal, and law enforcement perspectives. Provides an overview of theories, definitions and causes of, and interventions for domestic violence involving spousal, elder and child abuse along with teen dating violence. Examines the dynamics and effects of domestic violence. Addresses research issues and contemporary domestic violence policy. Prerequisites: None.

Division: Health Science and Public Service

AJS195 / International And Domestic Terrorism**3 Credits / 3.0 Periods for Lecture**

An overview of the history, structure, goals, and activities of domestic and international terrorist groups. Explores theories explaining terrorism and reviews methods used to combat it. Prerequisites: None.

Division: Health Science and Public Service

AJS200 / Current Issues In Criminal Justice**3 Credits / 3.0 Periods for Lecture**

Examines current issues, techniques and trends in the Criminal Justice System. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB] in combo

Division: Health Science and Public Service

AJS201 / Rules of Evidence**3 Credits / 3.0 Periods for Lecture**

A practical insight into the rules of evidence to include how to recognize evidence: the general rules governing admissibility of evidence; the hearsay rule and its exceptions; the use of documentary evidence, written memoranda, photographs, recordings and electronic surveillance; corpus delicti; opinion evidence, circumstantial evidence, evidential privileges.

Prerequisites: None.

Division: Health Science and Public Service

AJS202 / Peace Officer Certification II**13 Credits / 22.5 Periods for Lecture & Lab**

A continuation of the basic, entry-level training program leading to full authority peace officer certification as required by the Arizona Peace Officer Standards and Training Board I (AzPOST). Subjects to include: Patrol Procedure, Accident Investigation, Records and Report Writing, Community Relations, Criminal Investigations, and Officer Survival.

Prerequisites: Grade of "C" or better in AJS/LEO102 or AzPost Limited Authority Peace Officer certification.

Division: Aviation and Applied Technology

AJS205 / Effective Communication and Report Writing in Criminal Justice**3 Credits / 3.0 Periods for Lecture**

Overview of effective communication for criminal justice agencies. Covers the communication process and flow. Written communication emphasized with report writing, including characteristics of reports and field notes, and the importance and uses of each. Form, style, and procedures for writing various reports, including elements of composition, required substance, proper and improper conclusions, and descriptions of persons and property. Prerequisites: None.

Division: Health Science and Public Service

AJS210 / Constitutional Law**3 Credits / 3.0 Periods for Lecture**

An examination of the U.S. Constitution as it relates to the law enforcement function. Includes statutory law and judicial decisions governing the areas of arrest, search and seizure, interrogations and confessions, self-incrimination and other constitutional guarantees. Required in AJS curriculum. Prerequisites: None.

Division: Health Science and Public Service

AJS212 / Juvenile Justice Procedures**3 Credits / 3.0 Periods for Lecture**

Examines the nature and extent of juvenile delinquency to the present. Including but not limited to the history, jurisdictions, terminology, procedures, and institutions of the juvenile justice system. Prerequisites: None.

Division: Health Science and Public Service

AJS213 / Evidence Technology/Fingerprints**3 Credits / 3.0 Periods for Lecture**

Fundamental principles and processes of fingerprints to include identification, interpretation, and classification. In addition, students will apply fingerprinting latent fingerprint developing, preservation of evidence and the chain of custody. Prerequisites: None.

Division: Health Science and Public Service

AJS214 / Evidence Technology/Photography**3 Credits / 3.0 Periods for Lecture**

The use of photography and other aids in identification and preservation of evidence such as fingerprints, footprints and impressions. Techniques in crime scene and traffic accident photography. Prerequisites: None.

Division: Health Science and Public Service

AJS215 / Criminalistics: Physical Evidence**3 Credits / 3.0 Periods for Lecture**

The scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Topics include fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson. Prerequisites: None.

Division: Health Science and Public Service

AJS216 / Criminalistics: Biological Evidence**3 Credits / 3.0 Periods for Lecture**

The scientific analysis and examination of biological evidence with emphasis on collection and preservation of evidence. Topics discussed include blood, drugs, blood alcohol, hairs and fibers, and topics of special interest in criminalistics. Prerequisites: None.

Division: Health Science and Public Service

AJS219 / Crime Scene Technology: Physical Evidence**3 Credits / 3.0 Periods for Lecture & Lab**

Scientific analysis and examination of physical evidence with emphasis on scientific investigation, recognition, collection, and preservation of evidence. Fingerprints, shoe prints, tool marks, firearms identification, paint chips and arson. Prerequisites: None.

Division: Health Science and Public Service

AJS225 / Criminology**3 Credits / 3.0 Periods for Lecture**

Study of deviance, society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime; relationships between statistics and crime trends. Examines crime victimization and the various types of crime and categories of offenders. Required in the AJS curriculum. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Health Science and Public Service

AJS230 / The Police Function**3 Credits / 3.0 Periods for Lecture**

Theories of procedures and methods of operations of public police with emphasis on discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement presented. Prerequisites: None.

Division: Health Science and Public Service

AJS240 / The Correction Function**3 Credits / 3.0 Periods for Lecture**

Examines the history and development of correctional theories and institutions. Prerequisites: None.

Division: Health Science and Public Service

AJS241 / Police Photography**3 Credits / 3.0 Periods for Lecture**

Emphasis on proper procedure for photographing crime scenes, accident scenes, and laboratory specimens. Discussion of photographic techniques, equipment, lighting techniques, aerial photography, video and motion pictures, macro and micro photography, filters, and preparation for court presentation using selected simulations. Prerequisites: None.

Division: Health Science and Public Service

AJS243 / Crime Scene Reconstruction**3 Credits / 3.0 Periods for Lecture**

Examines techniques used to reconstruct the physical actions that occurred at a crime or accident scene. Involves the use of physical, testimonial, and documentary evidence, knowledge of criminal modus operandi and the scientific method, including deductive and inductive logic. Includes analysis of case studies. Prerequisites: A grade of C or better in AJS215 or AJS216 or AJS219 or AJS275 or FOR105 or permission of Instructor.

Division: Health Science and Public Service

AJS255 / The Criminal Justice System Handling of the Mentally Ill**3 Credits / 3.0 Periods for Lecture**

An introduction to methods police, court and correctional personnel employ specific to the mentally ill. Covers various types of mental illnesses, police emergency responses, how criminal and civil courts deal with the mentally ill, diversion programs and the correctional response both within the community and under confinement. Prerequisites: None.

Division: Health Science and Public Service

AJS258 / Victimology and Crisis Management**3 Credits / 3.0 Periods for Lecture**

Victimology, the criminal justice system, techniques of crisis intervention, and the importance of a multicultural and global perspective. Includes sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, effective coping skills, appropriate community resources and the responsiveness of the justice system. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Health Science and Public Service

AJS260 / Procedural Criminal Law**3 Credits / 3.0 Periods for Lecture**

Concerned with the understanding of procedural criminal law. Examines the processes and procedures followed by law enforcement, attorneys, and the courts in the apprehension and prosecution of criminal offenders. Examines the rationale underlying major court holdings impacting the criminal justice process, the procedural requirements that stem from these holdings and their effect on the daily operations of the criminal justice system. Prerequisites: None.

Division: Health Science and Public Service

AJS270 / Community Relations**3 Credits / 3.0 Periods for Lecture**

Examination, recognition and understanding of community problems; community action programs; methods of coping with human behavior, victimology, conflict and communication; ethnic and minority cultures and environments; the community and relationships with the criminal justice system. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Health Science and Public Service

AJS275 / Criminal Investigation I**3 Credits / 3.0 Periods for Lecture**

Introduction to the theory of criminal investigation. Examines crime scene procedures, case preparation, interviewing, and basic investigative techniques. Prerequisites: None.

Division: Health Science and Public Service

AJS280AA / Peace Officer Certification I**20 Credits / 28.0 Periods for Lecture & Lab**

Phase I of the training program for peace officers, leading to certification by the Arizona Peace Officer Standards and Training Board (AzPOST), the statutory agency for certifying peace officers in Arizona. Covers current industry-specific training including expectations of recruits in the areas of academics, physical fitness, mental, and emotional preparation. Emphasis on professional and ethical behavior. Prerequisites: Students must comply with AzPOST standards for peace officers. Course Notes: Successful completion of this course and appointment by an agency qualifies students for limited authority certification by the Arizona Peace Officer Standards and Training Board (AzPOST), the statutory agency for certifying peace officers in Arizona.

Division: Aviation and Applied Technology

AJS280AB / Peace Officer Certification II**20 Credits / 28.0 Periods for Lecture & Lab**

Phase II of the training program for peace officers, leading to certification by the Arizona Peace Officer Standards and Training Board (AzPOST), the statutory agency for certifying peace officers in Arizona. Covers current industry-specific training including expectations of recruits in the areas of academics, physical fitness, mental, and emotional preparation. Emphasis on professional and ethical behavior. Prerequisites: A grade of C or better in AJS/LET280AA or permission of Program Director. Course Notes: Successful completion of this course and appointment by an agency qualifies students for full authority certification by the Arizona Peace Officer Standards and Training Board (AzPOST), the statutory agency for certifying peace officers in Arizona.

Division: Aviation and Applied Technology

AJS290AH / Use Of Force**0.5 Credits / 0.5 Periods for Lecture & Lab**

Examines issues related to the use of force by and against police officers. Explores police use of force decision-making options. Reviews recent changes in Arizona law relative to police officers. Prerequisites: Permission of Department or Division.

Division: Health Science and Public Service

AJS290BN / Courtroom Testimony Seminar**1 Credit / 1.0 Periods for Lecture**

Courtroom demeanor and protocol. Role and primary functions of witness and legal counsels. Prerequisites: None.

Division: Health Science and Public Service

Aeronautics (AET)

AET107 / Private Pilot Ground School**5 Credits / 5.0 Periods for Lecture**

Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, airplane systems, airports, airspace, communications, Federal Air Regulations, navigation, airplane performance, flight planning, and flight physiology. Requires passing a written exam similar to the FAA Private Pilot written exam. Prerequisites: None. Corequisites: AET110 or AET112.

Division: Aviation and Applied Technology

AET107HH / Private Pilot Ground School: Helicopter**5 Credits / 5.0 Periods for Lecture**

Ground school in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate written examination. Includes aerodynamics, helicopter systems, airports, airspace, communications, Federal Air Regulations, navigation, helicopter performance, flight planning, and flight physiology. Requires passing a written exam similar to the FAA Private Pilot written exam. Prerequisites: None. Corequisites: AET110HH.

Division: Aviation and Applied Technology

AET110 / Private Pilot Flight**1 Credit / 5.0 Periods for Laboratory**

Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, night flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Approximately 50 hours airplane flight experience at student's expense required. Requires passing check ride similar to the FAA Private Pilot check ride. Prerequisites: None. Corequisites: AET107.

Division: Aviation and Applied Technology

AET110HH / Private Pilot Flight: Helicopter**2 Credits / 5.0 Periods for Laboratory**

Flight course in preparation for the Federal Aviation Administration (FAA) Private Pilot Certificate practical examination. Includes preflight preparation, preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs, landings, and go-rounds, performance maneuvers, navigation, emergency operations, night operations, and post-flight procedures. Approximately 75-85 hours helicopter flight experience at student's expense required. Requires passing check ride similar to the FAA Private Pilot check ride. Prerequisites: None. Corequisites: AET107HH.

Division: Aviation and Applied Technology

AET112 / Private Pilot Flight-Test Course**1 Credit / 5.0 Periods for Laboratory**

Flight course in preparation for transition into continued AET course work. Includes preflight preparation and planning, ground operations, airport operations, departures, navigation, basic instrument flight, slow flight, ground reference maneuvers, emergency operations, and arrivals. Requires passing check ride similar to the Federal Aviation Administration Private Pilot check ride. Prerequisites: FAA Private Pilot Airplane Single-Engine Land or advanced certification. Corequisites: AET107. Course Notes: Flight and ground briefing time at student's expense required.

Division: Aviation and Applied Technology

AET115 / Aviation Meteorology**3 Credits / 3.0 Periods for Lecture**

Meteorology for professional pilots. Includes atmosphere, air mass circulation, cloud type identification, weather hazards, and high altitude, Arctic, and tropical weather systems. Basic forecasting, use of Direct User Access Terminal (DUAT) systems and reading and interpreting weather charts. Prerequisites: None.

Division: Aviation and Applied Technology

AET203 / Basic Airplane Systems**3 Credits / 3.0 Periods for Lecture**

Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination. Discussions will include, but not be limited to reciprocating engines, engine systems, airplane systems, altitude systems, and commercial regulations. Prerequisites: A grade of C or better in (AET207, AET217, and AET210) or permission of Instructor. Corequisites: AET222.

Division: Aviation and Applied Technology

AET203HH / Basic Helicopter Systems**2 Credits / 2.0 Periods for Lecture**

Beginning commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examination. Discussions will include, but not be limited to reciprocating engines, engine systems, helicopter systems, altitude systems, and commercial regulations. Prerequisites: A grade of C or better in AET207HH, AET217HH, and AET210HH. Corequisites: AET220HH and AET203HH.

Division: Aviation and Applied Technology

AET205 / Aircraft Structures, Systems, and Maintenance**4 Credits / 4.0 Periods for Lecture**

Survey of air frame structures, systems, and maintenance regulations for pilots. Includes aircraft and airfoil design and construction, and electrical, instrumentation, and automatic flight control systems. Maintenance privileges and limitations, and forms and records. Prerequisites: Private Pilot Certificate or permission of Instructor.

Division: Aviation and Applied Technology

AET207 / Attitude Instruments and Navigation**3 Credits / 3.0 Periods for Lecture**

Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument Rating written examinations. Includes preflight preparation, flight instruments, basic attitude instrument flying, radio navigation systems, and technically advanced aircraft systems. Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET210, AET217, and AET220.

Division: Aviation and Applied Technology

AET207HH / Attitude Instruments and Navigation: Helicopter**2 Credits / 2.0 Periods for Lecture**

Beginning instrument pilot ground course in preparation for the Federal Aviation Administration (FAA) Instrument Pilot Rating and Instrument rating written examinations. Includes preflight preparation, flight instruments, basic attitude instrument flying, radio navigation systems, and technically advanced helicopter systems. Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET210HH and AET217HH.

Division: Aviation and Applied Technology

AET208 / Aviation Safety**3 Credits / 3.0 Periods for Lecture**

Introduction to aviation safety, including aviation safety programs, risk management, pilot psychology, physiology, human factors, and accident review and investigation. Prerequisites: A grade of C or better in AET107, or permission of Instructor.

Division: Aviation and Applied Technology

AET210 / Commercial Flight Lab I**1 Credit / 5.0 Periods for Laboratory**

Initial flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on instrument and technically advanced aircraft operations. Student must fly approximately 10 hours at own expense. Requires passing operational stage checks similar to the FAA check rides. Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET217, and AET220.

Division: Aviation and Applied Technology

AET210HH / Instrument Flight: Helicopter**2 Credits / 5.0 Periods for Laboratory**

Initial helicopter flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on helicopter instrument operations. Student must fly approximately 75 hours at own expense. Requires passing operational phase checks. Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET207HH and AET217HH.

Division: Aviation and Applied Technology

AET213 / Aerodynamics and Performance**3 Credits / 3.0 Periods for Lecture**

Advanced commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited to aerodynamics, performance, safe and efficient airplane operations, airplane stability and control, stalls, and spins. Prerequisites: A grade of C or better in AET207, AET217, and AET210. Corequisites: AET221.

Division: Aviation and Applied Technology

AET213HH / Aerodynamics and Performance: Helicopter**2 Credits / 2.0 Periods for Lecture**

Advance commercial pilot ground course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot Certificate and Commercial written examinations. Includes discussion of aerodynamic factors including lift, weight, drag, and thrust. Discussions will include, but are not limited to aerodynamics, performance, and safe and efficient helicopter operations. Prerequisites: A grade of C or better in AET207HH, AET217HH, and AET210HH. Corequisites: AET220HH and AET203HH.

Division: Aviation and Applied Technology

AET215 / Aircraft Powerplants**4 Credits / 4.0 Periods for Lecture**

Survey of engines and engine systems for pilots. Includes theory and analysis of reciprocating and turbine aircraft engines. Lubrication, ignition, fuel control, cooling, exhaust, and propellers. Prerequisites: A grade of C or better in AET205 or permission of Instructor.

Division: Aviation and Applied Technology

AET217 / Instrument Procedures**3 Credits / 3.0 Periods for Lecture**

Advanced instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument en route considerations. Requires passing written exam similar to the Instrument pilot rating and Instrument rating written exams. Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210, and AET220.

Division: Aviation and Applied Technology

AET217HH / Instrument Procedures: Helicopter**2 Credits / 2.0 Periods for Lecture**

Advance helicopter instrument pilot ground school course in preparation for the Federal Aviation Administration (FAA) Instrument pilot rating and Instrument rating written examinations. Includes Federal Aviation Regulations, instrument approach procedures, and instrument en route considerations. Requires passing written exams similar to the Instrument pilot rating and Instrument rating written exams. Prerequisites: A grade of C or better in AET110HH or permission of Instructor. Corequisites: AET210HH and AET217HH.

Division: Aviation and Applied Technology

AET220 / Instrument Flight Lab**1 Credit / 5.0 Periods for Laboratory**

Flight course in preparation for the Federal Aviation Administration (FAA) Instrument rating practical examination. Emphasis on instrument operations. Student must fly approximately 40 hours at own expense. Requires passing of stage checks similar to the FAA check ride. Prerequisites: A grade of C or better in AET110 or permission of Instructor. Corequisites: AET207, AET210, and AET217.

Division: Aviation and Applied Technology

AET220HH / Commercial Flight: Helicopter**2 Credits / 5.0 Periods for Laboratory**

Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial and high performance helicopter operations. Student must fly approximately 60 hours at own expense. Requires passing instrument rating and commercial pilot stage checks similar to the FAA check rides. Prerequisites: A grade of C or better in AET210HH, AET207HH and AET217HH. Corequisites: AET203HH and AET213HH.

Division: Aviation and Applied Technology

AET221 / Commercial Flight Lab II**1 Credit / 5.0 Periods for Laboratory**

Intermediate flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial and solo cross-country flight operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures during dual instruction are designed to be performed with flight instructor guidance. Requires passing commercial pilot stage checks similar to the FAA check ride. Prerequisites: A grade of C or better in AET207 and AET210 or permission of Instructor. Corequisites: AET213.

Division: Aviation and Applied Technology

AET222 / Commercial Flight Lab III**1 Credit / 5.0 Periods for Laboratory**

Advanced flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 45 hours at their own expense. Maneuvers and procedures are designed to be performed with little flight instructor guidance. Requires commercial pilot stage checks similar to the FAA check ride. Prerequisites: A grade of C or better in AET221 and AET213. Corequisites: AET203.

Division: Aviation and Applied Technology

AET225 / Advanced Aircraft Systems**4 Credits / 4.0 Periods for Lecture**

Survey of advanced aircraft systems to include electrical, automatic flight control, pressurization, cabin atmosphere, ice control, rain control, fire detection and extinguishing. Includes theory and analysis of turbine aircraft engines. Introduction to turbine engine systems to include lubrication, ignition, fuel control, cooling, exhaust, and propellers. Includes overview of maintenance publications, forms and records. Prerequisites: Private Pilot Certificate or permission of Instructor.

Division: Aviation and Applied Technology

AET227 / Certified Flight Instructor: Airplane, Single Engine Land Ground School**5 Credits / 5.0 Periods for Lecture**

Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, airplane performance, systems, operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Airplane, and Fundamentals of Instruction written exams. Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET230.

Division: Aviation and Applied Technology

AET227HH / Certified Flight Instructor: Helicopter Ground School**4 Credits / 4.0 Periods for Lecture**

Ground school in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor and Fundamentals of Instruction written examinations. Includes fundamentals of instruction, aerodynamics, helicopter performance, systems, operations, weight and balance, weather, federal regulations, navigation, maneuvers, pilot physiology, ethics, and aeronautical decision making. Requires passing written exams similar to the FAA Certified Flight Instructor: Helicopter, and Fundamentals of Instruction written exams. Prerequisites: FAA Commercial Pilot Certificate. Corequisites: AET230HH.

Division: Aviation and Applied Technology

AET229 / Crew Resource Management**3 Credits / 3.0 Periods for Lecture**

Crew communications, teamwork, leadership, "followership," decision-making, and situational awareness; also the benefits of diversity, and the role diversity plays in the modern aerospace industry. Emphasis on utilization of all available resources in order to conduct a safe and efficient flight. Prerequisites: A grade of C or better in AET217, or permission of instructor.

Division: Aviation and Applied Technology

AET230 / Certified Flight Instructor: Airplane, Single Engine Land Flight Lab**1 Credit / 3.0 Periods for Laboratory**

Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Airplane practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight, ground operations, airport operations, takeoffs, climbs, flight fundamentals, stalls, spins, slow flight, basic instrument operations, performance maneuvers, ground reference maneuvers, emergency operations, approaches, landings, and postflight procedures. Requires approximately 25 hours of flight that includes high performance operations at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride. Prerequisites: A grade of C or better in AET240 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET227.

Division: Aviation and Applied Technology

AET230HH / Certified Flight Instructor: Helicopter**1 Credit / 3.0 Periods for Laboratory**

Flight course in preparation for the Federal Aviation Administration (FAA) Certified Flight Instructor: Helicopter practical examination. Emphasis on demonstration and analysis of flight maneuvers. Includes preflight procedures, airport and heliport operations, hovering maneuvers, takeoffs, landings, and go-arounds, fundamentals of flight, performance maneuvers, emergency operations, special operations, and postflight procedures. Requires approximately 60 hours of flight at student's expense. Also requires passing check ride similar to the FAA Certified Flight Instructor check ride. Prerequisites: FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET227HH.

Division: Aviation and Applied Technology

AET237 / Multiengine Airplane Pilot Ground School**2 Credits / 2.0 Periods for Lecture**

Aeronautical knowledge necessary to meet requirements for a multi-engine airplane rating including orientation, aerodynamics, airplane systems, airplane performance, flight planning, and emergency procedures. Prerequisites: A grade of C or better in AET220 or FAA Commercial Pilot Certificate with instrument rating. Corequisites: AET240.

Division: Aviation and Applied Technology

AET239 / Commercial Flight Lab IV**1 Credit / 5.0 Periods for Laboratory**

Final flight course in preparation for the Federal Aviation Administration (FAA) Commercial Pilot practical examination. Emphasis on commercial operations. Student must fly approximately 20 hours at their own expense. Maneuvers and procedures are designed to be performed without flight instructor guidance. Requires passing commercial pilot stage check similar to the FAA check ride. Prerequisites: A grade of C or better in (AET203 and AET222), or permission of Instructor.

Division: Aviation and Applied Technology

AET240 / Multiengine Airplane Pilot Flight Lab**1 Credit / 1.5 Periods for Laboratory**

Flight course in preparation for the Federal Aviation Administration (FAA) Multi-engine Airplane practical examination. Approximately 18 hours of flight experience at the student's expense and passing check ride similar to the FAA Multi-engine check ride are required. Prerequisites: A grade of C or better in AET239 or FAA Commercial Pilot Certificate with Single Engine Land and Instrument rating. Corequisites: AET237.

Division: Aviation and Applied Technology

AET257 / Readings In Aviation**3 Credits / 4.0 Periods for Lecture & Lab**

Critical inquiry of a particular aviation theme from a wide variety of sources. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. International data communication facilities and equipment made available for student use. Prerequisites: A grade of C or better in ENG102 or ENG111 and permission of Instructor.

Division: Aviation and Applied Technology

AET258 / Certified Flight Instructor: Instrument Airplane Ground School**3 Credits / 3.0 Periods for Lecture**

Aeronautical knowledge and practical teaching ability necessary to obtain an Instrument Flight Instructor Certificate with an Airplane-Single-Engine rating and necessary to satisfactorily pass the Flight Instructor Instrument knowledge test. Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the appropriate category and class of airplane used in the course, instrument rating, and Flight Instructor Certificate-Airplane. Corequisites: AET270.

Division: Aviation and Applied Technology

AET258HH / Certified Flight Instructor: Instrument Helicopter, Ground School**3 Credits / 3.0 Periods for Lecture**

Aeronautical knowledge and practical teaching ability necessary to obtain an Instrument Flight Instructor Certificate with a Helicopter rating and necessary to satisfactorily pass the Helicopter Flight Instructor Instrument knowledge test. Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with instrument rating and the appropriate category and class of helicopter used and Flight Instructor Certificate-Helicopter. Corequisites: AET270HH.

Division: Aviation and Applied Technology

AET270 / Certified Flight Instructor: Instrument Airplane Flight Lab**1 Credit / 3.0 Periods for Laboratory**

Flight experience in an airplane to meet flight proficiency and aeronautical experience requirements necessary to add an Instrument Airplane Rating to an existing Flight Instructor-Airplane certificate. Prerequisites: Valid FAA Commercial Pilot Certificate or Airline Transport Pilot Certificate with the appropriate category and class of airplane used in the course, instrument rating, and Flight Instructor Certificate-Airplane. Corequisites: AET258.

Division: Aviation and Applied Technology

AET270HH / Certified Flight Instructor: Instrument Helicopter Lab**1 Credit / 3.0 Periods for Laboratory**

Flight experience in a helicopter designed to provide flight proficiency and aeronautical experience requirements necessary to pursue adding an Instrument Helicopter Rating to an existing Flight Instructor-Helicopter certificate. Prerequisites: Valid FAA Commercial Pilot Certificate, or Airline Transport Pilot Certificate with instrument rating and the appropriate category and class of helicopter used; and Flight Instructor Certificate-Helicopter. Corequisites: AET258HH.

Division: Aviation and Applied Technology

AET290 / Flight Physiology**3 Credits / 3.0 Periods for Lecture**

In-depth study of aeromedical factors for pilots. The causes, symptoms, prevention, and treatment of flight environment disorders, altitude effects, spatial disorientation, visual illusions, body heat imbalance, and psychological factors are included as they relate to pilot performance and survival. Two altitude chamber flights at the student's expense are required. Prerequisites: Current FAA (Federal Aviation Administration) medical certificate.

Division: Aviation and Applied Technology

African American Studies (AFR)**AFR110 / Introduction to African-American Studies****3 Credits / 3.0 Periods for Lecture**

Introduction to the study of the African-American experience. Interdisciplinary approach includes historical underpinnings; population and cultural characteristics; social, economic, and political issues; and implications for the future. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Language, Humanits, Learnng Centr&Informtn Studies

AFR202 / Ethnic Relations in the United States**3 Credits / 3.0 Periods for Lecture**

Basic concepts and processes, including historic overview, of inter-ethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to inter-ethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

AFR203 / African-American History: The Slavery Experience**3 Credits / 3.0 Periods for Lecture**

History and cultural heritage of African-Americans, including arrival in the Americas, chattel slavery experience, emancipation, and participation in the American Civil War. Presented from an Afro-centric perspective. Prerequisites: A grade of C or better in AFR110 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

AFR204 / African-American History: Reconstruction to the Present**3 Credits / 3.0 Periods for Lecture**

History and cultural heritage of African-Americans from the Reconstruction period to the present, including the Depression, the Harlem Renaissance, the Civil Rights Movement, and affirmative action. Presented from an Afro-centric perspective. Prerequisites: A grade of C or better in AFR203 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

Aircraft/Maintenance Technology (AMT)**AMT124 / Aircraft Forms and Regulations, Weight and Balance, Drawings, and Ground Operations****5 Credits / 9.0 Periods for Lecture & Lab**

Federal Aviation maintenance publications, forms and records. Overview of technician's privileges and limitations. Perform aircraft weight and balance, aircraft ground operations and fuel servicing techniques. Drawings, symbols and schematic diagrams. Prerequisites: Admission to the Aircraft Maintenance Technology program.

Division: Aviation and Applied Technology

AMT126 / Fundamentals of Mathematics and Electricity**9 Credits / 12.0 Periods for Lecture & Lab**

Mathematical computation of fundamental electrical circuit parameters. Basic definitions, laws, and concepts. Schematic, wiring, and parts placement diagrams. Test and troubleshoot electrical and electronic components and circuits. Prerequisites: Admission to the Aircraft Maintenance Technology program.

Division: Aviation and Applied Technology

AMT128 / Fundamentals of Aviation Physics, Corrosion Control, Materials and Processes, Fluid Lines and Fittings**5 Credits / 9.0 Periods for Lecture & Lab**

Basic concepts of motion, fluid dynamics, heat and sound, aerodynamics, aircraft structure and theory of flight. Fluid lines and fittings, component identification, function, inspection, and installation. Cleaning and corrosion control, materials and processes, non-destructive testing, and precision measurement techniques. Prerequisites: Admission to the Aircraft Maintenance Technology program.

Division: Aviation and Applied Technology

AMT220 / Fundamentals Of Aircraft Wood Structures, Covering And Finishing, And Bonded Structures**3 Credits / 6.0 Periods for Lecture & Lab**

Theories and techniques of aircraft wood structures. Inspection, test and repair of aircraft fabric and wood structures. Aircraft structural design and methods of working with selected materials. Characteristics of composites, inspections and repairs. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT222 / Atmosphere Control, Fire Detection, Ice and Rain Protection Systems**4 Credits / 6.0 Periods for Lecture & Lab**

Operation and maintenance of aircraft auxiliary systems. Inspection, servicing, troubleshooting and repair of environmental control, ice and rain control, fire protection and warning systems. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT224 / Aircraft Sheet Metal**5 Credits / 11.0 Periods for Lecture & Lab**

Inspection, fabrication, and repair techniques of aircraft structural and nonstructural components. Sheet metal heat-treating techniques. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT226 / Aircraft Landing Gear, Hydraulic, Pneumatic, Fuel, Position And Warning Systems**7 Credits / 12.0 Periods for Lecture & Lab**

Identification, inspection, repair, and troubleshooting techniques of aircraft landing gear, hydraulic, fuel, pneumatic, and position and warning system components. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT228 / Aircraft Electrical Systems, Instruments, Fuel Indicating, Communication And Navigation Systems**7 Credits / 12.0 Periods for Lecture & Lab**

Proper operation, inspection, servicing and troubleshooting of DC(Direct Current) and AC(Alternating Current) sources, systems, and components. Mechanical and electrical sensing and information display systems. Fuel indicator system inspections, repairs, and troubleshooting. Transmitter and receiver fundamentals. Avionics installation, inspection and testing. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT230 / Airframe Assembly, Inspection And Welding**6 Credits / 11.0 Periods for Lecture & Lab**

Aircraft assembly and rigging. Flight control balancing and rigging. Airframe inspection techniques, reporting procedures, and aircraft jacking. Welding techniques, theory, and materials identification. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT263 / Aircraft Turbine Engines**5 Credits / 9.0 Periods for Lecture & Lab**

Historical development and application of turbine engines. Theory of thrust and the design and environmental factors which influence thrust. Turbine engine troubleshooting, inspection, service, repair and overhaul. Operational characteristics and engine test techniques on the aircraft and in test cells. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT264 / Aircraft Reciprocating Engines**7 Credits / 11.0 Periods for Lecture & Lab**

Historical development and application of reciprocating engines, theory, design, and operations. Techniques used in troubleshooting, overhaul, inspection, and repair of opposed and radial engines. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT266 / Engine Fuel Systems, Fuel Metering and Induction System**6 Credits / 9.0 Periods for Lecture & Lab**

Inspection, servicing, troubleshooting, overhaul, and repair of aircraft fuel systems and components, fuel metering devices, injection systems, turbochargers, and superchargers. Induction system principles of operation and design. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT268 / Engine Electrical, Ignition and Starter Systems**6 Credits / 12.0 Periods for Lecture & Lab**

Inspect, service, troubleshoot, overhaul, and repair of engine electrical, ignition, starter systems, and components. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT270 / Engine Instruments, Fire Protection And Lubrication, Cooling And Exhaust Systems**5 Credits / 8.0 Periods for Lecture & Lab**

Operation, maintenance, servicing, inspection, repair, and troubleshooting of engine instruments, fire detection and extinguishing, engine lubrication, cooling, and exhaust systems. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

AMT272 / Propeller Systems and Engine Inspections**4 Credits / 8.0 Periods for Lecture & Lab**

Historical development, operation, disassembly, inspection, repair, and maintenance of propellers. Reciprocating and turbine engine inspection and documentation. Prerequisites: Admission to the program.

Division: Aviation and Applied Technology

American Indian Studies (AIS)

AIS101 / Survey of American Indian Issues**3 Credits / 3.0 Periods for Lecture**

Introduction to critical issues related to American Indian peoples. Examines cultural, political, economic, educational, social, and environmental issues. Focuses on contemporary issues and factors influencing American Indian communities. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

AIS140 / American Indian History**3 Credits / 3.0 Periods for Lecture**

Survey of American Indian history with emphasis on the last 200 years including developments in the 20th century. Focuses on selected groups such as the Cherokee, Iroquois Confederation, Navajo, Sioux and Indians of the Southwest in relation to cultural, economic, political and social continuity and changes. Topics include development and influence of federal policies, past and present issues confronting Native Americans and how Native American individuals and communities maintain their identities as they confront social changes. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

AIS141 / Sovereign Indian Nations**3 Credits / 3.0 Periods for Lecture**

Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

AIS160 / American Indian Law**3 Credits / 3.0 Periods for Lecture**

Analyzes the legal system of the United States Government as it applies to American Indian Nations. Examines how United States legal institutions have impacted Indian sovereignty. Units of analysis include the development of Indian law, United States Supreme Court decisions, Congressional Acts, treaty rights and the development of tribal governments. Focuses on legal institutions that have abridged the property rights of Indian Nations. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanities, Learning Center & Informtn Studies

AIS203 / Fundamentals of Economic Development for Indigenous Nations**3 Credits / 3.0 Periods for Lecture**

Provides a practical understanding of the economic development process. Examines ways in which development can be initiated and financed. Focuses on how budget systems can be used as management tools. Reviews fundamentals of proposal writing and budget management for grants. Prerequisites: None.

Division: Language, Humanities, Learning Center & Informtn Studies

AIS213 / American Indian Religions**3 Credits / 3.0 Periods for Lecture**

An examination of the historical and cultural background of diverse life ways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Language, Humanities, Learning Center & Informtn Studies

American Sign Language (ASL)

ASL101 / American Sign Language I**4 Credits / 4.0 Periods for Lecture**

Introduction of principles, methods, and techniques for communicating with deaf people who sign. Development of expressive and receptive sign skills, manual alphabet, numbers, and sign vocabulary. Overview of syntax, grammar, and culture related to American Sign Language (A.S.L.). Prerequisites: None. ASL103 suggested as a corequisite but not required.

Division: Language, Humanities, Learning Center & Informtn Studies

ASL102 / American Sign Language II**4 Credits / 4.0 Periods for Lecture**

Continued development of knowledge and language skills for communicating with deaf people who sign. Includes numbers, fingerspelling, and culture. Emphasis on enhancement of receptive sign skills and continued development of expressive sign skills. Application of rudimentary, syntactical, and grammatical structure stressed with continued development of sign vocabulary. Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required.

Division: Language, Humanities, Learning Center & Informtn Studies

ASL103 / Introduction to the Deaf Community**1 Credit / 1.0 Periods for Lecture**

History and development of American Sign Language (ASL) and English codes. Overview of education for Deaf and Hard of Hearing children. Legal rights and common adaptive devices used by Deaf and Hard of Hearing individuals. Prerequisites: None.

Division: Language, Humanities, Learning Center & Informtn Studies

ASL110 / Fingerspelling**3 Credits / 3.0 Periods for Lecture**

Introduction to fingerspelling techniques. Focus on methods, theory, and applications on receptive and expressive skills including manual alphabet production and numbers. In addition, skill development in speed, dexterity, clarity, and lexicalized fingerspelling, numeric incorporation, prefixes, suffixes, and polysyllabic words. Prerequisites: A grade of C or better in ASL101 or permission of Department or Division. Completion of prerequisites within the last three years is required.

Division: Language, Humanities, Learning Center & Informtn Studies

ASL201 / American Sign Language III**4 Credits / 4.0 Periods for Lecture**

Linguistics of American Sign Language (A.S.L.) including non-manual behaviors and signing English idioms with conceptual accuracy. Emphasis on practical application of A.S.L. skills, expanded vocabulary, and cross-cultural communication.

Division: Language, Humanities, Learning Center & Informtn Studies

ASL202 / American Sign Language IV**4 Credits / 4.0 Periods for Lecture**

Advanced American Sign Language skills including continued vocabulary. Emphasis on conversational techniques in a cross-cultural framework. Continued work on conceptual accurate signing of English idioms and words with multiple meanings. Prerequisites: A grade of C or better in ASL201 or permission of Department or Division. (ENG101 or ENG107), ASL200, and (CRE101 or equivalent as indicated by assessment) suggested but not required. Completion of prerequisites within the last three years is required.

Division: Language, Humanities, Learning Center & Informtn Studies

Anthropology (Science/Math) (ASM)

ASM104 / Bones, Stones, and Human Evolution**4 Credits / 5.0 Periods for Lecture & Lab**

Study of human evolution and variation; including fossil hominids and their tools, primate anatomy and behavior, human genetics, and the environment and human biology. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Social & Behavioral Sciences

ASM265 / Laboratory Methods in Archaeology**4 Credits / 4.0 Periods for Lecture & Lab**

Techniques of artifact. Basic archaeological research techniques; methods of report writing. Prerequisites: None. Course Notes: ASM265 may be repeated for a total of eight (8) credits hours.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Social & Behavioral Sciences

ASM275 / Forensic Anthropology**4 Credits / 5.0 Periods for Lecture & Lab**

Survey of the role of forensic anthropologists, from the crime scene to the courtroom. Course focuses on how skeletal analysis can aid in medicolegal investigations, especially by identifying aspects of the life history of unknown individuals and by reconstructing events that took place at crime scenes. Covers both the legal aspects of forensic practice and the underlying biological basis for evidence obtained from skeletal remains. Examines applications of forensic anthropology in mass disasters, human rights investigations, and the deciphering of historic cases. Lab activities designed to illustrate techniques and principles central to the discipline. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Social & Behavioral Sciences

Anthropology (Soc/Behv. Science) (ASB)

ASB100 / Introduction to Global Health**3 Credits / 3.0 Periods for Lecture**

The study of human health patterns at an international and local scale. Focus on pressing global health challenges that the world faces today are examined from a broad social, ecological, and cultural context. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Social & Behavioral Sciences

ASB102 / Introduction to Cultural Anthropology**3 Credits / 3.0 Periods for Lecture**

Principles of cultural anthropology, with illustrative materials from a variety of cultures. The nature of culture; social, political, and economic systems; religion, aesthetics and language. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ASB202 / Ethnic Relations in the United States**3 Credits / 3.0 Periods for Lecture**

Basic concepts and processes, including historic overview, of inter-ethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to inter-ethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ASB211 / Women in Other Cultures**3 Credits / 3.0 Periods for Lecture**

Cross-cultural analysis of the economic, social, political, and religious factors that affect women's status in traditional and modern societies. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ASB214 / Magic, Witchcraft and Healing: An Introduction to Comparative Religion**3 Credits / 3.0 Periods for Lecture**

Origins, elements, and forms of religion; a comparative survey of religious beliefs, myths, rituals and symbolism including magic, witchcraft and healing as practiced in selected regions of the world; the place of religion in the total culture. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Social & Behavioral Sciences

ASB220 / Anthropology Goes to the Movies**3 Credits / 3.0 Periods for Lecture**

Archaeology and anthropology through the lens of popular films of the 20th and 21st Century. Explores the popularity of ancient humans as a topic for film ventures and how accurately they are portrayed. Provides the student with a basic knowledge of anthropology and offers film images of anthropologists and archaeologists and the practice of archaeology and anthropology. Analyzes accuracy of films depicting culture and our human past. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Social & Behavioral Sciences

ASB222 / Buried Cities and Lost Tribes: Old World**3 Credits / 3.0 Periods for Lecture**

Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled life ways, the rise of cities and complex societies, political strife across different cultures and the forces which tend to fragment societies. Examples drawn from Africa, Asia, Europe, the Pacific Islands, and Australia. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Social & Behavioral Sciences

ASB223 / Buried Cities and Lost Tribes: New World**3 Credits / 3.0 Periods for Lecture**

Introduction to archaeology through discoveries and the researchers who made them. Emphasis on methods of archaeological fieldwork and what these discoveries reveal about humanity, including the nature of archaeological inquiry, the development of human social groups, the changing role of religion in evolving societies, the origins of agriculture, the origins of settled life ways, the rise of cities and complex societies, political strife across different cultures and the forces which fragment societies. Examples drawn from North America, Central America, and South America. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ASB226 / Human Impacts on Ancient Environments**3 Credits / 3.0 Periods for Lecture**

Interrelationship between humans and their environments, using archaeological data and case studies beginning with early hominids. Uses of research to identify environmental change and distinguish between climatic and human-induced global change. Explores ways in which prehistoric people caused and responded to environmental changes. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Social & Behavioral Sciences

ASB230 / Principles of Archaeology**3 Credits / 3.0 Periods for Lecture**

Introduction to archaeological methods and theory. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ASB231 / Archaeological Field Methods**4 Credits / 6.0 Periods for Lecture & Lab**

Excavation of an archaeological site; recording and interpreting data collected during the field experience. Overview of the cultures concerned; contemporary issues in archaeology. Prerequisites: None.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Social & Behavioral Sciences

ASB235 / Southwest Archaeology**3 Credits / 3.0 Periods for Lecture**

Anthropological perspective and comparative study of the cultures of prehistoric native peoples of the North American southwest. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Social & Behavioral Sciences

ASB252 / Sports and Culture**3 Credits / 3.0 Periods for Lecture**

Cross-cultural examination of symbolic and social dimensions of sports, past and present. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ASB253 / Death and Dying Across Cultures**3 Credits / 3.0 Periods for Lecture**

Responses to death and dying in cultures around the world. Explanations for particular cultural responses to death and dying. Examples drawn from ancient and contemporary cultures. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Social & Behavioral Sciences

Art (ART)

ART100 / Introduction to Digital Arts**1 Credit / 2.0 Periods for Lecture & Lab**

Foundation course in digital arts and design, with emphasis in the production of art using the computer. Prerequisites: None.

Division: Communication & Fine Arts

ART111 / Drawing I**3 Credits / 6.0 Periods for Lecture & Lab**

Fundamental principles of drawing. Emphasis on composition and facility in objective and expressive representation, using variety of drawing media. Prerequisites: None.



SUN# ART 1111

Division: Communication & Fine Arts



ART112 / Two-Dimensional Design**3 Credits / 6.0 Periods for Lecture & Lab**

Study of fundamental elements and principles of two-dimensional design.

Prerequisites: None.



SUN# ART 1112

Division: Communication & Fine Arts

ART113 / Color**3 Credits / 6.0 Periods for Lecture & Lab**

Investigation seeking visual solutions to a variety of problems concerning color in two and three dimensions and modes of color appearances, including light and effects in design and theory of design. Prerequisites: None.

Division: Communication & Fine Arts

ART114 / Digital Color**3 Credits / 6.0 Periods for Lecture & Lab**

Overview of how color is perceived and utilized in a digital environment and how to ensure consistent color from capture to final output in print or online. Investigate visual solutions utilizing electronic devices for color correction, manipulation and integrity. Prerequisites: None.

Division: Communication & Fine Arts

ART115 / Three-Dimensional Design**3 Credits / 6.0 Periods for Lecture & Lab**

Fundamental principles of three-dimensional design. Prerequisites: None.



SUN# ART 1115

Division: Communication & Fine Arts

ART116 / Life Drawing I**3 Credits / 6.0 Periods for Lecture & Lab**

Use of form, structure and anatomy of draped and undraped human figure to develop basic principles of sound draftsmanship. Prerequisites: None.

Division: Communication & Fine Arts

ART117 / Life Drawing II**3 Credits / 6.0 Periods for Lecture & Lab**

Further study of form, structure, and anatomy of the draped and undraped human figure with emphasis on composition. Prerequisites: ART116.

Division: Communication & Fine Arts

ART118 / Art Anatomy**3 Credits / 6.0 Periods for Lecture & Lab**

Artistic study of the concept of anatomical unity. Principle skeletal and muscular structures affecting surface form of the human figure. Includes drawing project, portfolio, and tests. Prerequisites: A grade of C or better in ART116 or permission of Instructor.

Division: Communication & Fine Arts

ART119 / Penciling for Sequential Art**3 Credits / 6.0 Periods for Lecture & Lab**

Development of observational skills as they apply to sequential art. Emphasis on techniques that showcase how characters interact with their environment and manipulate props and cartooning anatomy. Includes techniques on composing page layouts, adapting scripts and reference gathering. Prerequisites: A grade of C or better in ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART120 / Inking for Sequential Art**3 Credits / 6.0 Periods for Lecture & Lab**

Development of inking materials and techniques used in sequential art. Emphasis on the types of tools used in the industry and the various means of employing them. Understanding the duties of the inker and the process of computer finishing. Prerequisites: None.

Division: Communication & Fine Arts

ART122 / Drawing and Composition II**3 Credits / 6.0 Periods for Lecture & Lab**

Emphasis on composition and exploration of drawing media. Prerequisites: A grade of C or better in ART111.

Division: Communication & Fine Arts

ART131 / Photography I**3 Credits / 6.0 Periods for Lecture & Lab**

Basic photographic principles and techniques. Basic camera functions and controls. Experience in the image-making process by creating and editing photographs for various display environments. Introduction to the photographic aesthetic and photography's role in society. Prerequisites: None. Course Notes: Camera required.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ART132 / Photography II**3 Credits / 6.0 Periods for Lecture & Lab**

Advanced camera and darkroom techniques. Aesthetic awareness with personal expression. Prerequisites: A grade of C or better in ART131 or permission of Instructor.

Division: Communication & Fine Arts

ART133 / Photography III**3 Credits / 6.0 Periods for Lecture & Lab**

Refinement of aesthetic and technical aspects producing convincing images of highest quality. Prerequisites: A grade of C or better in ART132 or permission of Instructor.

Division: Communication & Fine Arts

ART134 / Photography IV**3 Credits / 6.0 Periods for Lecture & Lab**

Emphasis on personal statement and style. Related graphic art forms explored. Development of portfolio. Prerequisites: A grade of C or better in ART133 or permission of Instructor.

Division: Communication & Fine Arts

ART137 / Alternative Photographic Processes**3 Credits / 6.0 Periods for Lecture & Lab**

Emphasis on development of alternative photographic processes including technique, aesthetics, and creative imagery. Exploration of various types of non-silver photographic processes including cyanotype, Van Dyke, Polaroid imaging, and others. Prerequisites: None.

Division: Communication & Fine Arts

ART138 / Commercial Photography I**3 Credits / 6.0 Periods for Lecture & Lab**

Basic techniques of lighting, camera work, and reproduction of commercial photography. Cooperation with commercial art community. Prerequisites: A grade of C or better in ART131, or ART142, or permission of Instructor.

Division: Communication & Fine Arts

ART139 / Commercial Photography II**3 Credits / 6.0 Periods for Lecture & Lab**

Advanced techniques with portfolio organization and presentation. Prerequisites: A grade of C or better in ART138.

Division: Communication & Fine Arts

ART140 / Portrait Photography**3 Credits / 6.0 Periods for Lecture & Lab**

Fundamentals of portrait photography. Basic techniques of lighting, posing, design, and digital workflows applicable to the industry. Theory and practices of a portrait photography business. Prerequisites: A grade of C or better in ART131, or ART142, or permission of Instructor. Course Notes: Digital camera with manual settings required.

Division: Communication & Fine Arts

ART142 / Introduction to Digital Photography**3 Credits / 6.0 Periods for Lecture & Lab**

Fundamentals of digital photography. Includes camera operations, exposure techniques, introduction to digital output, and theory of digital photography. Prerequisites: None. Course Notes: Digital camera required.

Division: Communication & Fine Arts

ART143 / Intermediate Digital Photography**3 Credits / 6.0 Periods for Lecture & Lab**

Intermediate theory and techniques of digital photography. Aesthetic awareness and personal expression from image capture through intermediate techniques in the digital darkroom. Introduction to high-resolution digital output. Prerequisites: A grade of C or better in ART142 or permission of Instructor. Course Notes: Semi-adjustable, high-resolution digital camera is required.

Division: Communication & Fine Arts

ART151 / Sculpture I**3 Credits / 6.0 Periods for Lecture & Lab**

Exploration of sculptural form and expression in clay, plaster, stone, wood and metal. Prerequisites: None.

Division: Communication & Fine Arts

ART161 / Ceramics I**3 Credits / 6.0 Periods for Lecture & Lab**

Introduction to ceramic materials and techniques of hand construction, decorating, glazing and throwing on potters' wheel. Prerequisites: None.

Division: Communication & Fine Arts

ART162 / Ceramics II**3 Credits / 6.0 Periods for Lecture & Lab**

Major emphasis on wheel throwing, glaze making and decorating techniques. Prerequisites: A grade of C or better in ART161.

Division: Communication & Fine Arts

ART165 / Watercolor Painting I**3 Credits / 6.0 Periods for Lecture & Lab**

Transparent and Gouache watercolor painting. Prerequisites: A grade of C or better in (ART111 and ART112), or permission of Instructor.

Division: Communication & Fine Arts

ART166 / Watercolor Painting II**3 Credits / 6.0 Periods for Lecture & Lab**

Painting in water soluble media. Emphasis on individual techniques and design. Prerequisites: A grade of C or better in ART165.

Division: Communication & Fine Arts

ART167 / Painting I**3 Credits / 6.0 Periods for Lecture & Lab**

Exploration of technical and expressive possibilities of various painting media in easel painting. Prerequisites: A grade of C or better in (ART111 and ART112), or permission of Instructor.

Division: Communication & Fine Arts

ART168 / Painting II**3 Credits / 6.0 Periods for Lecture & Lab**

Continued refinement of painting skills and investigation of new possibilities in painting. Prerequisites: A grade of C or better in ART167 or permission of Instructor.

Division: Communication & Fine Arts

ART169 / 2D Media Design**3 Credits / 6.0 Periods for Lecture & Lab**

Generation of two-dimensional (2D) images, designs, and media using digital and traditional methods of visual problem solving. Understanding digital and design-based techniques and workflows. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART170 / 3D Computer Design**3 Credits / 6.0 Periods for Lecture & Lab**

Artistic manipulation of computer images. Emphasis on color and three-dimensional (3D) design in production of these images. Existing software used to generate three-dimensional art. Prerequisites: A grade of C or better in ART100 or ADA/ART169 or permission of Instructor.

Division: Communication & Fine Arts

ART173 / Computer Art**3 Credits / 6.0 Periods for Lecture & Lab**

Introduction to the multiple elements of paint software programs using the microcomputer. Basic foundation in the use of computer techniques including color paint programs for the production of computer images. Use of electronic input and output devices. Prerequisites: A grade of C or better in ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART175 / Electronic Publishing Design I**3 Credits / 6.0 Periods for Lecture & Lab**

Introduction to the multiple elements of commercial publishing using the microcomputer. Basic foundation in the use of electronic page layout techniques. Emphasis on publication design layout and concepts. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART177 / Digital Photographic Imaging I**3 Credits / 6.0 Periods for Lecture & Lab**

Introduction to multiple elements of digital imaging. Basic foundation in photographic manipulation of images, with special attention to aesthetic foundations underlying photographic composition. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART178 / Digital Arts Studies**3 Credits / 6.0 Periods for Lecture & Lab**

Designed for broad overview of the digital arts. Experience in digital based media, creative problem solving, design and aesthetics. Prerequisites: A grade of C or better in ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART179 / Electronic Presentation Design**3 Credits / 6.0 Periods for Lecture & Lab**

Introduction to the multiple elements of commercial-graphic presentation materials using the microcomputer and other advanced technologies. Basic foundation in the use of computer presentation software programs using presentation techniques. Special attention to aesthetic foundations underlying all presentation materials. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART181 / Graphic Design I**3 Credits / 6.0 Periods for Lecture & Lab**

Basic understanding of design principles and the stages of graphic design, with an emphasis on final product and presentation. Prerequisites: A grade of C or better in ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART183 / Digital Graphic Arts I**3 Credits / 6.0 Periods for Lecture & Lab**

Graphic design use in microcomputer; black and white graphics, standard and color brushes, lines, shapes, area fills and fonts. Application to illustration, advertising graphics, typography, and video interaction. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART184 / Digital Animation I**3 Credits / 6.0 Periods for Lecture & Lab**

The art of animation (animated sequences, special effects, titles, etc.) using the computer. Construction characters, background graphics, color, scaling, storyboard, cells, timing, editing, and surface rendering. Screening and discussion of selected animated short films and videos. Prerequisites: A grade of C or better in (ART111 or ART116) or permission of Instructor. Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART185 / 3D Modeling and Animation I**3 Credits / 6.0 Periods for Lecture & Lab**

Basic concepts of 3D modeling. Anatomy of computer geometry; basic elements that make computer models—curves, surfaces, non-uniform rational basis spline (NURBS), and polygons. 3D translation, shading, materials, and rendering. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART219 / Coloring, Toning and Lettering for Sequential Art**3 Credits / 6.0 Periods for Lecture & Lab**

Understanding of the digital rules and programs used in coloring, toning and lettering comics, and the problems presented therein within the sequential narrative. Emphasis on rules and guidelines within the industry, and digital coloring and lettering. Prerequisites: A grade of C or better in (ART100, ART119, and ART120) or permission of Instructor.

Division: Communication & Fine Arts

ART220 / Publishing for the Comic Industry**3 Credits / 6.0 Periods for Lecture & Lab**

Understanding of the comics industry. Includes researching, marketing, packaging, and distributing comics. Emphasis on selling and submitting to comic publishers, how to develop comics for self-publishing, promotional materials, and understanding contracts and copyrights involved in the process of publishing comics. Prerequisites: A grade of C or better in ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART221 / Comics Creation**3 Credits / 3.0 Periods for Lecture & Lab**

Development of a complete sequential comic, using all comics skills from beginning to end. Process includes scripting, penciling, inking, coloring or toning, lettering, and printing for publication. Prerequisites: A grade of C or better in (ART100 and ART219) or permission of Instructor.

Division: Communication & Fine Arts

ART234 / Color Photography I**3 Credits / 6.0 Periods for Lecture & Lab**

Basic principles of color theory, camera and input and output techniques using slide film or digital photography. Prerequisites: A grade of C or better in ART131, or ART142, or permission of Instructor. Course Notes: Film or digital camera is required.

Division: Communication & Fine Arts

ART237 / Fashion Photography**3 Credits / 6.0 Periods for Lecture & Lab**

Practical application of photographic techniques within the fashion industry. Includes the photographing of models, garments, and accessories. Prerequisites: A grade of C or better in ART131, or ART142, or permission of Instructor. Course Notes: Digital Single Lens Reflex (DSLR) camera is required. ART237 may be repeated for credit.

Division: Communication & Fine Arts

ART248 / Design Self Promotion**3 Credits / 6.0 Periods for Lecture & Lab**

Defining career goals, and developing a self-promotional marketing plan to enter the workplace, including a resume, business card, leave behind, social media presence, interactive portfolio and printed portfolio. Understand business ethics and etiquette, artist's rights, copyright laws and contractual agreements, and develop networking, interview and communication skills. Prerequisites: None.

Division: Communication & Fine Arts

ART250 / Introduction to Printmaking**3 Credits / 6.0 Periods for Lecture & Lab**

Introduction to concepts and techniques involved in Fine Art field of Printmaking. Deals with three most basic Printmaking modes of Serigraphy, Woodcut, and Monoprinting in first part of course. Overview of Etching, Lithography and Papermaking in second part of course. Prerequisites: A grade of C or better in ART111 and ART113.

Division: Communication & Fine Arts

ART255 / Art Marketing**3 Credits / 3.0 Periods for Lecture**

Career goals, presentation of artist and art work (portfolio, resume, business cards, catalog), pricing and selling works, networking, establishing a studio, promotion and publicity, writing press releases, proposal writing, business ethics, artist rights, copyright law, contracts and agreements, royalties, record keeping, and communication skills. Prerequisites: None.

Division: Communication & Fine Arts

ART255AB / The Portfolio**1 Credit / 1.0 Periods for Lecture**

Choosing the right pieces to include, presenting art work, developing the portfolio. Prerequisites: None.

Division: Communication & Fine Arts

ART263 / Figure Painting**3 Credits / 6.0 Periods for Lecture & Lab**

Study of the nude and clothed figure in painting with special attention upon relevant color palettes, direct and indirect figurative painting techniques, and development of anatomical knowledge and compositional structure. Students will draw upon both historical and contemporary modes of depicting the figure to develop a personalized approach to figure painting. Live models, photographs, drawings, "Planes of the Head" models, and the studio skeleton will be used as the basis of projects. Prerequisites: A grade of C or better in ART167 or permission of Instructor. Course Notes: Previous experience drawing from the live model recommended. Oil paint is the preferred medium but students may work in other painting media if they have previous experience. ART263 may be repeated for credit.

Division: Communication & Fine Arts

ART270 / Digital Photographic Imaging II**3 Credits / 6.0 Periods for Lecture & Lab**

Intermediate digital photographic imaging techniques. Refinement of aesthetic awareness and personal expression. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ADA/ART177.

Division: Communication & Fine Arts

ART274 / Digital Photographic Imaging III**3 Credits / 6.0 Periods for Lecture & Lab**

Advanced digital photographic imaging techniques. Advanced manipulation techniques of photographic images and time-based media. Continued development of aesthetic awareness and personal expression. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART270.

Division: Communication & Fine Arts

ART280AA / Digital Media Arts and Design Capstone**1 Credit / 2.0 Periods for Lecture & Lab**

Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design. Prerequisites: Permission of Program Director or Instructor. Course Notes: ART280AA requires 80 clock hours of designated work per credit hour.

Division: Communication & Fine Arts

ART280AB / Digital Media Arts and Design Capstone**2 Credits / 4.0 Periods for Lecture & Lab**

Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design. Prerequisites: Permission of Program Director or Instructor. Course Notes: ART280AB requires 80 clock hours of designated work per credit hour.

Division: Communication & Fine Arts

ART280AC / Digital Media Arts and Design Capstone**3 Credits / 6.0 Periods for Lecture & Lab**

Focus on design, art, and development skills for a problem taken from business or industry. Includes practice-based capstone project focusing on a specific issue or need in digital media arts and design. Prerequisites: Permission of Program Director or Instructor. Course Notes: ART280AC requires 80 clock hours of designated work per credit hour.

Division: Communication & Fine Arts

ART283 / Digital Graphic Arts II**3 Credits / 6.0 Periods for Lecture & Lab**

Advanced skill development of graphic design through use of microcomputer. Emphasis on computer design and techniques for producing all types of camera-ready advertising art for printed matter and package design. Includes illustration, typography, photo imaging, and color separation. Prerequisites: A grade of C or better in ADA/ART183 or permission of Instructor.

Division: Communication & Fine Arts

ART289 / Computer Illustration**3 Credits / 6.0 Periods for Lecture & Lab**

Introduction to the multiple elements of commercial illustration using the microcomputer. Basic foundation in the use of computer techniques including color paint and draw programs for the production of commercial illustrations for publications and printed matter. Use of and output devices. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: ART100 or permission of Instructor.

Division: Communication & Fine Arts

ART290AC / Studio Art**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: Permission of Instructor. Course Notes: ART290AC students must have completed advanced courses in the subject field. ART290AC may be repeated for credit.

Division: Communication & Fine Arts

ART290BC / Studio Art: Drawing**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: A grade of C or better in ART111 or permission of Instructor. Course Notes: ART290BC may be repeated for credit.

Division: Communication & Fine Arts

ART290DC / Studio Art: Life Drawing**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: A grade of C or better in ART117 or permission of Instructor. Course Notes: ART290DC may be repeated for credit.

Division: Communication & Fine Arts

ART290EC / Studio Art: Photography**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: A grade of C or better in ART132 or permission of Instructor. Course Notes: ART290EC may be repeated for credit.

Division: Communication & Fine Arts

ART290GC / Studio Art: Ceramics**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: A grade of C or better in ART162 or permission of Instructor. Course Notes: ART290GC may be repeated for credit.

Division: Communication & Fine Arts

ART290JC / Studio Art: Color**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: A grade of C or better in ART113 or permission of Instructor. Course Notes: ART290JC may be repeated for credit.

Division: Communication & Fine Arts

ART290MC / Studio Art: Digital Photography**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: A grade of C or better in ART143 or permission of Instructor. Course Notes: ART290MC may be repeated for credit.

Division: Communication & Fine Arts

ART290PC / Studio Art: Painting**3 Credits / 6.0 Periods for Lecture & Lab**

Studio course for art majors allowing continuation in a subject field. Prerequisites: A grade of C or better in ART168 or permission of Instructor. Course Notes: ART290PC may be repeated for credit.

Division: Communication & Fine Arts

ART295DA / Art Workshop/Seminar: Photography**1 Credit / 2.0 Periods for Lecture & Lab**

Advanced level workshop seminar in art disciplines. Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.

Division: Communication & Fine Arts

ART295DB / Art Workshop/Seminar: Photography**2 Credits / 4.0 Periods for Lecture & Lab**

Advanced level workshop seminar in art disciplines. Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.

Division: Communication & Fine Arts

ART295DC / Art Workshop/Seminar: Photography**3 Credits / 6.0 Periods for Lecture & Lab**

Advanced-level workshop seminar in art disciplines. Prerequisites: Minimum of three (3) credits introductory and three (3) credits intermediate level courses in specific field or permission of Department or Division Chair.

Division: Communication & Fine Arts

ART295LB / Art Workshop/Seminar: Glazing Techniques**2 Credits / 4.0 Periods for Lecture & Lab**

Advanced level workshop seminar in art disciplines. Prerequisites: Permission of Instructor.

Division: Communication & Fine Arts

ART297AA / Commercial Art Internship**1 Credit / 1.0 Periods for Lecture & Lab**

Digital design, development, and photographic imaging work experience in a business or industry. 80 hours of designated work. Prerequisites: Permission of Department or Division. Course Notes: ART297AA may be repeated for a total of three (3) credit hours.

Division: Communication & Fine Arts

ART297AB / Commercial Art Internship**2 Credits / 2.0 Periods for Lecture & Lab**

Digital design, development, and photographic imaging work experience in a business or industry. 160 hours of designated work. Prerequisites: Permission of Department or Division.

Division: Communication & Fine Arts

Art Humanities (ARH)

ARH100 / Introduction to Art

3 Credits / 3.0 Periods for Lecture

Understanding and enjoyment of art and visual culture through study of two-dimensional and three-dimensional works of art, design elements, media and processes, and cultural contexts. Emphasis on contemporary topics and cultural diversity in the arts. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH101 / Prehistoric Through Gothic Art

3 Credits / 3.0 Periods for Lecture

History of art from prehistoric through medieval period. Prerequisites: None.



SUN# ART 1101

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts



ARH102 / Renaissance Through Contemporary Art

3 Credits / 3.0 Periods for Lecture

History of art from around the world from the Renaissance through contemporary period. Prerequisites: None.



SUN# ART 1102

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH109 / History of American Art

3 Credits / 3.0 Periods for Lecture

Development and variety of American Art. Presentation of architecture, sculpture, painting and decorative objects. Prerequisites: None.

Division: Communication & Fine Arts

ARH110 / History of Graphic Design

3 Credits / 3.0 Periods for Lecture

Survey of the history of graphic design from its origins to the present. Traces the characteristics, aesthetics and the reciprocal influence of design and society. Includes movements and individual designers.

Emphasizes the function of design as a distinct but equal branch of human visual communication and the role of design as the dominant visual exercise of the contemporary world. Prerequisites: None.

Division: Communication & Fine Arts

ARH112 / History of Modern Art

3 Credits / 3.0 Periods for Lecture

Development of and significant aspects of modern art since the mid-nineteenth century. Emphasis on modern art's relationship to socio-political and aesthetic developments, new media and the rise of mass culture. Prerequisites: None.

Division: Communication & Fine Arts

ARH115 / History of Photography**3 Credits / 3.0 Periods for Lecture**

Survey of history of photography from beginning to present. Emphasizes medium's impact upon society and other visual arts. Technical developments, aesthetic concerns, and individual photographers studied. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH118 / Introduction to Chinese Art**3 Credits / 3.0 Periods for Lecture & Lab**

Explores Chinese philosophy, symbolism, history and religions that underlie the choice of subject matter and life forms in Chinese art. Uses Chinese bamboo brush, ink and rice paper to study Chinese calligraphy and traditional subjects for painting. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH145 / History of American Indian Art**3 Credits / 3.0 Periods for Lecture**

Survey of American Indian Art from precontact to present. Reviews the impact of these art forms on contemporary American society, other world societies and on the visual arts. Explores characteristics, cultural influences and concerns represented in various art forms past and present. Features field trips to galleries and collections. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH201 / Art of Asia**3 Credits / 3.0 Periods for Lecture**

Introduction to the origins and historic development of art in Asia, with emphasis on China, Japan, and India. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH203 / Art of Ancient Egypt**3 Credits / 3.0 Periods for Lecture**

The art and culture of ancient Egypt from prehistoric through the Greco-Roman period. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH204 / Roman Art and Architecture**3 Credits / 3.0 Periods for Lecture**

Detailed examination of the art and architecture of ancient Rome from the monarchical period to the late empire, with emphasis on the visual culture and artifacts of the civilization. Prerequisites: None

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Communication & Fine Arts

ARH216 / Pre-Columbian Art History**3 Credits / 3.0 Periods for Lecture**

Art of the Americas prior to European contact, focusing on Mesoamerica and the Central Andean region and their respective adjoining areas, with some attention to the U.S. Southwest and Eastern Woodlands Mound Building cultures. Prerequisites: None.

Division: Communication & Fine Arts

ARH217 / Mexican Art History**3 Credits / 3.0 Periods for Lecture**

Art of Mexico and related cultures, from the prehistoric to the contemporary period. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

ARH240 / Art and Architecture of the Islamic World to 1800**3 Credits / 3.0 Periods for Lecture**

Introduction to the principal achievements in art and architecture of the Islamic world circa 650-1800 CE and placing them in social and cultural contexts and consideration of the historical evolution of Western knowledge and understanding of these works. Prerequisites: None.

Division: Communication & Fine Arts

ARH250 / Visual Language and Interpretation**1 Credit / 1.0 Periods for Lecture**

Examines the communication of concepts through visual interpretation and expression. Prerequisites: A grade of C or better in (ART111, ART112, ART131, ART167, and ARH100) or permission of instructor.

Division: Communication & Fine Arts

Artificial Intelligence and Machine Learning (AIM)

AIM100 / Introduction to Artificial Intelligence**3 Credits / 3.0 Periods for Lecture**

Basic concepts and applications of artificial intelligence (AI), including AI project cycles. Focus on issues surrounding AI including ethics, bias, culture, regulations, and professional expectations. Prerequisites: None.

Division: Physical Sciences and Engineering

AIM110 / Introduction to Machine Learning**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to machine learning concepts and Python applications, including data acquisition, supervised and unsupervised learning, and data modeling. Prerequisites: A grade of C or better in AIM100, CIS156, and MAT206.

Division: Physical Sciences and Engineering

AIM210 / Natural Language Processing**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamental concepts in Natural Language Processing (NLP) and text processing. Focus on knowledge and skills necessary to create a language recognition application. Prerequisites: A grade of C or better in AIM110.

Division: Physical Sciences and Engineering

AIM220 / Artificial Intelligence for Computer Vision**3 Credits / 4.0 Periods for Lecture & Lab**

Understand and apply the basic techniques to process images using OpenCV and Python libraries. Prerequisites: A grade of C or better in AIM110.

Division: Physical Sciences and Engineering

AIM230 / Artificial Intelligence for Business Solutions**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamentals of artificial intelligence (AI) and machine learning to support business solutions. Prerequisites: A grade of C or better in AIM210 and AIM220.

Division: Physical Sciences and Engineering

AIM240 / Artificial Intelligence Capstone Project**3 Credits / 4.0 Periods for Lecture & Lab**

Focus on how a social issue is explored, brought through the Artificial Intelligence (AI) Project cycle, and delivered as a solution using the different domains of AI, including computer vision and natural language processing. Prerequisites: A grade of C or better in AIM210 and AIM220.

Division: Physical Sciences and Engineering

Astronomy (AST)

AST101 / Survey of Astronomy**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Survey of astronomy for the nontechnical student. The history, content, and evolution of the solar system and the universe in general. Astronomical principles and instrumentation. The planets, moons, sun, comets, stars and star formation, galaxies, and cosmology. Prerequisites: None.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Physical Sciences and Engineering

AST102 / Survey of Astronomy Laboratory**1 Credit / 3.0 Periods for Laboratory**

Astronomical observations and exercises designed to familiarize students with the sky, telescopes, and methods used in astronomy. Prerequisites: A grade of C or better in AST101 and permission of Instructor or Department or Division. Course Notes: AST102 is a legacy course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST101 only.

Division: Physical Sciences and Engineering

AST106 / Life in the Universe**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Introduction to the search for life in the universe for the non-science major. Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and the possibility of life on other planets. Prerequisites: A grade of C or better in MAT090 or MAT091 or MAT092 or completion of higher level mathematics course, or satisfactory placement.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

AST111 / Introduction to Solar System Astronomy**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Introduction to astronomy for the non-science major. The scientific method, properties of light, astronomical instruments, our Solar System and solar systems around other stars. Includes hands-on astronomical observations and laboratory exercises. Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory district placement.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

AST112 / Introduction to Stars, Galaxies, and Cosmology**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Introduction to astronomy for the non-science major. Structure and evolution of stars; supernovae, black holes, and quasars; nebulae; star clusters; galaxies; cosmology, including the birth and death of the universe. Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory district placement. Course Notes: Note that AST111 is not a prerequisite for this course.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

AST113 / Introduction to Solar System Astronomy Laboratory**1 Credit / 3.0 Periods for Laboratory**

Hands-on astronomical observations and exercises to supplement AST111. Prerequisites: A grade of C or better in AST111 and permission of Instructor or Department or Division. Course Notes: AST113 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST111 only.

Division: Physical Sciences and Engineering

AST114 / Introduction to Stars, Galaxies, and Cosmology Laboratory**1 Credit / 3.0 Periods for Laboratory**

Hands-on astronomical observations and exercises to supplement AST112. Prerequisites: A grade of C or better in AST112 and permission of Instructor or Department or Division. Course Notes: AST114 is a course intended for those students who have previously completed the corresponding lecture course. Current MCCC students should enroll in AST112 only.

Division: Physical Sciences and Engineering

AST294AB / Special Topics in Astronomy**1 Credit / 1.0 Periods for Lecture**

Conceptual, experimental, and computational aspects of a special topic in astronomy. Prerequisites: Permission of Department or Division.

Course Notes: AST294AB may be repeated for credit.

Division: Physical Sciences and Engineering

Automated Industrial Technology (AIT)

AIT124 / Composites**3 Credits / 4.0 Periods for Lecture & Lab**

Basic composite materials, construction, and repair. Manufacturing methods and equipment. Assessment and repair of composite structures using vacuum bagging and other approved procedures. Corrosion control, electrical bonding, materials substitutions, machining of composite components, mold fabrication. Hot bond repair of composite components including complex shapes and varied materials. Prerequisites: None.

Division: Aviation and Applied Technology

AIT132 / Industrial Technology for the Semiconductor Industry**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to semiconductor manufacturing concepts, processes, and hands-on application. Includes electrical theory, circuits, schematics, hand tools, safety, clean room protocols, model based problem solving, lean manufacturing, vacuum technology, and troubleshooting. Prerequisites: None.

Division: Aviation and Applied Technology

Biology (BIO)

BIO100 / Biology Concepts

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Introductory course covering basic principles and concepts of biology. Methods of scientific inquiry and behavior of matter and energy in biological systems are explored. Prerequisites: None. Course Notes: Field trips may be required at students' expense.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BIO101 / Introduction to Human Genetics for Non-Majors

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Study of inheritance in humans, at the organismal, cellular and molecular levels. Includes exploration of gene expression, isolation and manipulation of DNA, Mendelian genetics, pedigree analysis, as well as chromosomal abnormalities and genetic diseases. Prerequisites: None.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BIO102 / Cells to Systems: An Introduction to Biology for Non-Majors

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Study of living things. Builds from basic molecular components to structure and physiology of cells and organ systems of animals and plants. Prerequisites: None.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BIO105 / Environmental Biology

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Fundamentals of ecology and their relevance to human impact on natural ecosystems. Field trips may be required at students' expense. Prerequisites: None.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BIO107 / Introduction to Biotechnology

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Introduction to biotechnology and its global impact on society. Covers applications, laboratory techniques, limitations and the international economic benefits, risks, and legal and moral issues associated with biotechnology. Prerequisites: None.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BIO108 / Plants and Society

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

A global study of plants in relation to humans; as a source of food, fiber, drugs, and other products; for aesthetic value, survival, and energy. Prerequisites: None.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BIO109 / Natural History of the Southwest

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Study of the common plants and animals of the Southwest including their distribution, adaptation, behavior, and ecology. Introduction to basic field and laboratory techniques used in the study of natural history. Specific field problems presented dealing with plant and animal analysis and ecological interrelationships. Prerequisites: None. Course Notes: Field trips may be required.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO111 / Microbes and Society

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Examination of the science of microbes and the impact of microbes on human affairs. Topics include principles of microbial diversity, cell structure, growth and reproduction, global processes, disease, and prevention of disease. Prerequisites: None.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO145 / Marine Biology

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

A survey of marine environments and their biotic communities with emphasis on the natural history of marine organisms. Prerequisites: None.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO149AF / Field Biology: Natural History of the Grand Canyon

1 Credit / 7.0 Periods for Laboratory

Survey of plants and animals of the Grand Canyon emphasizing ecological relationships and adaptation biology. Human activities in and impact upon the Canyon's ecosystems from prehistoric times to present considered. Course consists of on-campus lectures and 7-day raft trip through inner gorge of the Grand Canyon. Prerequisites: None.

Division: Biological Sciences

BIO149AH / Field Biology: Marine Biology in Mexico

1 Credit / 1.34 Periods for Lecture & Lab

Introduction to marine experiments, marine biology, and ecology. On-site field experience in Mexico. Emphasis on observation and study of marine organisms along the shore. Prerequisites: Permission of Instructor.

Course Notes: BIO149AH may be repeated for a total of three (3) credit hours.

Division: Biological Sciences

BIO149AK / Field Biology: Ecological and Environmental Field Experience

1 Credit / 7.0 Periods for Laboratory

Field expeditions in which ecological and environmental principles and concepts are observed and studied. Prerequisites: None. Course Notes: BIO149AK may be repeated for a total of four (4) credit hours.

Division: Biological Sciences

BIO149AL / Field Biology: Ecological and Environmental Field Experience

2 Credits / 14.0 Periods for Laboratory

Field expeditions in which ecological and environmental principles and concepts are observed and studied. Prerequisites: None. Course Notes: BIO149AL may be repeated for a total of four (4) credit hours.

Division: Biological Sciences

BI0149AM / Field Biology: Ecological and Environmental Field Experience
3 Credits / 21.0 Periods for Laboratory

Field expeditions in which ecological and environmental principles and concepts are observed and studied. Prerequisites: None.

Division: Biological Sciences

BI0149AN / Field Biology: Ecological and Environmental Field Experience
4 Credits / 28.0 Periods for Laboratory

Field expeditions in which ecological and environmental principles and concepts are observed and studied. Prerequisites: None.

Division: Biological Sciences

BI0156 / Introductory Biology for Allied Health**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics. Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one-semester of college level chemistry is strongly recommended.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BI0156XT / Introductory Biology for Allied Health**4 Credits / 4.0 Periods for Laboratory, 3.0 Periods for Lecture**

An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, microbiology, and genetics. Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one-semester of college level chemistry is strongly recommended.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BI0160 / Introduction to Human Anatomy and Physiology**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Principles of scientific method. Structural organization, homeostasis and control mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body. Prerequisites: None.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences

BI0174 / Biosafety**1 Credit / 1.0 Periods for Lecture**

General laboratory safety, hazardous chemical use and disposal, biohazardous material use and disposal, biosafety procedures, and radiation safety. Prerequisites: None.

Division: Biological Sciences

BI0181 / General Biology (Majors) I**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics. Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level biology and chemistry is strongly recommended.



SUN# BIO 1181

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

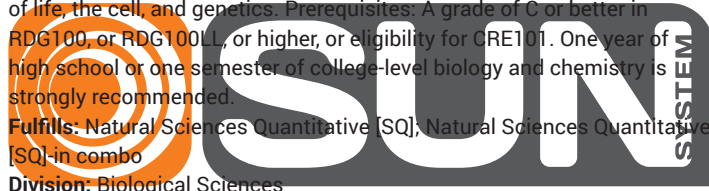
Division: Biological Sciences

BI0181XT / General Biology (Majors) I**4 Credits / 4.0 Periods for Laboratory, 3.0 Periods for Lecture**

The study and principles of structure and function of organisms at the molecular and cellular levels. A detailed exploration of the chemistry of life, the cell, and genetics. Prerequisites: A grade of C or better in RDG100, or RDG100LL, or higher, or eligibility for CRE101. One year of high school or one semester of college-level biology and chemistry is strongly recommended.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences



BIO182 / General Biology (Majors) II**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology. Prerequisites: A grade of C or better in BIO181 or BIO181XT. Course Notes: BIO182 may require field trips.



SUN# BIO 1182

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO182XT / General Biology (Majors) II**4 Credits / 4.0 Periods for Laboratory, 3.0 Periods for Lecture**

The study and principles of structure and function of living things at cellular, organismic, and higher levels of organization. A detailed exploration of the mechanisms of evolution, biological diversity, biology of organisms, and ecology. Prerequisites: A grade of C or better in BIO181 or BIO181XT. Course Notes: BIO182XT may require field trips.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO201 / Human Anatomy and Physiology I**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.



SUN# BIO 2201

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO201XT / Human Anatomy and Physiology I**4 Credits / 4.0 Periods for Laboratory, 3.0 Periods for Lecture**

Study of structure and function of the human body. Topics include cells, tissues, integumentary system, skeletal system, muscular system, and nervous system. Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO202 / Human Anatomy and Physiology II**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Continuation of structure and function of the human body. Topics include endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems; and fluid and electrolyte balance. Prerequisites: A grade of C or better in BIO201 or BIO201XT.



SUN# BIO 2202

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

**BIO205 / Microbiology****4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Study of microorganisms and their relationship to health, ecology, and related fields. Prerequisites: A grade of C or better in (BIO156, or BIO156XT, or BIO181, or BIO181XT, or one year of high school biology) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101). CHM130 or higher or one year of high school chemistry suggested but not required.



SUN# BIO 2205

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Biological Sciences

BIO220 / Biology of Microorganisms**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Detailed study of microbial cells, their structure, genetics, physiology and taxonomy. Prerequisites: A grade of C or better in BIO181. Corequisites: (CHM152 and CHM152LL) or (CHM154 and CHM154LL).

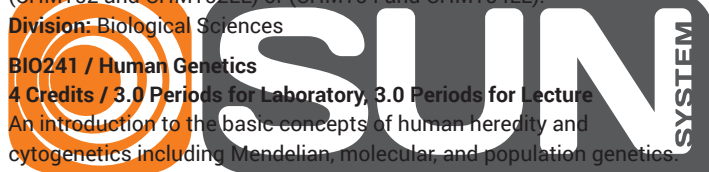
Division: Biological Sciences

BIO241 / Human Genetics**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

An introduction to the basic concepts of human heredity and cytogenetics including Mendelian, molecular, and population genetics. Prerequisites: A grade of C or better in BIO100, or BIO181, or equivalent, or permission of instructor.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Biological Sciences



BIO283 / Bioinformatics and Scientific Computing**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text editors, Unix, Internet web site searching and construction, and ethics. Prerequisites: A grade of C or better in [(BIO156 or BIO181) and (MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ or higher)], or permission of Instructor or Department/Division Chair. Concurrent enrollment in, or previous completion of, BIO208 or BIO212AA is strongly suggested but not required.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Biological Sciences

Business-Personal Computers (BPC)

BPC101AA / Introduction to Computers I**1 Credit / 2.0 Periods for Lecture & Lab**

Computer software applications for the personal computer, including electronic spreadsheet and word processing, keyboarding review, and a desktop environment. Prerequisites: None.

Division: Business and Computing Studies

BPC110 / Computer Usage and Applications**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to business and personal computer operations and usage. Software applications for analyzing and solving business problems including word processing, spreadsheet, database, and presentation graphics. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

BPC111AA / Computer Keyboarding I**1 Credit / 1.7 Periods for Lecture & Lab**

Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. Prerequisites: None.

Division: Business and Computing Studies

BPC111AB / Computer Keyboarding II**1 Credit / 1.7 Periods for Lecture & Lab**

Further development of microcomputer keyboard speed and accuracy. Emphasis on touch typing with speed and accuracy development of numerals as related to preparation and handling of documents. Prerequisites: A grade of C or better in BPC/OAS111AA, or permission of Instructor.

Division: Business and Computing Studies

BPC170 / A+ Exam Prep: Computer Hardware Configuration and Support**3 Credits / 4.0 Periods for Lecture & Lab**

Explore technical aspects of personal computers, including system components, installation, system configuration, peripheral devices, and notebooks. Emphasis placed on hardware installation, maintenance, mobile devices, and hardware troubleshooting. Helps prepare students for the CompTIA A+ examinations. Prerequisites: None.

Division: Business and Computing Studies

BPC171 / Recycling Used Computer Technology**1 Credit / 2.0 Periods for Lecture & Lab**

Use of hardware maintenance knowledge and skills to refurbish used computers. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: BPC170 or permission of instructor. Course Notes: BPC171 may be repeated for a total of three (3) credit hours.

Division: Business and Computing Studies

BPC270 / A+ Exam Prep: Operating System Configuration and Support**3 Credits / 4.0 Periods for Lecture & Lab**

Explore advanced technical aspects of maintaining and servicing computers. Emphasis placed on OS installation, maintenance, mobile devices, security, software troubleshooting, and on proper usage of tools, safety procedures, and professionalism. Helps prepare students for the CompTIA A+ examinations. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Division: Business and Computing Studies

BPC274 / Advanced Server Computer Maintenance: Server+ Prep**3 Credits / 4.0 Periods for Lecture & Lab**

Explores the technical aspects of computer servers, including hardware installation and management; operating system configuration, access control and virtualization; and overall diagnostic and resolution of system hardware, software, connectivity, storage and security issues. Includes an emphasis on physical and network data security techniques and implementation of backup techniques to remediate disaster recoveries. Helps prepare students for the CompTIA Server+ examination. Prerequisites: A grade of C or better in (CIS126++ and MST150++), or BPC270, or permission of Instructor.

Division: Business and Computing Studies

Chemistry (CHM)

CHM107 / Chemistry and Society**3 Credits / 3.0 Periods for Lecture**

A survey of chemistry and its impact on the environment. Completion of CHM107LL required to meet the Natural Science requirement.

Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM107LL

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM107LL / Chemistry and Society Laboratory**1 Credit / 3.0 Periods for Laboratory**

Laboratory experience in support of CHM107. Prerequisites or Corequisites: CHM107. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM107

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM130 / Fundamental Chemistry**3 Credits / 3.0 Periods for Lecture**

A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry. Designed to meet needs of students in such diverse areas as agriculture, nursing, home economics, physical education and water technology. Prerequisites: A grade of C or better in [(CHM100, or MAT090, or MAT091, or MAT092, or higher level mathematics course, or satisfactory math placement) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or Department or Division Chair. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM130LL



SUN# CHM 1130

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

**CHM130AA / Fundamental Chemistry with Lab****4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

A survey of the fundamentals of general chemistry. Emphasis on essential concepts and problem solving techniques. Basic principles of measurement, chemical bonding, structure and reactions, nomenclature, and the chemistry of acids and bases. Preparation for students taking more advanced courses in chemistry. Designed to meet needs of students in such diverse areas as agriculture, nursing, home economics, physical education and water technology. Prerequisites: A grade of C or better in [(CHM100, or MAT090, or MAT091, or MAT092, or higher level mathematics course, or satisfactory math placement) and (RDG100, or RDG100LL, or higher, or eligibility for CRE101 as indicated by appropriate reading placement)], or permission of the Instructor, or Department or Division Chair. Course Notes: Student may receive credit for only one of the following: CHM130 and CHM130LL, or CHM130AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM130LL / Fundamental Chemistry Laboratory**1 Credit / 3.0 Periods for Laboratory**

Laboratory experience in support of CHM130. Prerequisites or Corequisites: A grade of "C" or better in CHM130. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM130



SUN# CHM 1130

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering



CHM138 / Chemistry for Allied Health**3 Credits / 3.0 Periods for Lecture**

Elements of fundamental and organic chemistry. Includes the general chemical behavior of inorganic matter and the structure of organic and biochemical systems. Course designed for specific allied health programs at MCCD. May not be applicable to other allied health programs or transferable. Prerequisites: A grade of C or better in (CHM100 or MAT090 or MAT091 or MAT092 or higher or satisfactory math placement), or one year of high school chemistry taken within the last five years with a grade of C or better, or permission of the Instructor, or Department or Division Chair.

Division: Physical Sciences and Engineering

CHM138LL / Chemistry for Allied Health Laboratory**1 Credit / 3.0 Periods for Laboratory**

Laboratory experience in support of CHM138, Chemistry for Allied Health. Prerequisites: None. Corequisites: CHM138.

Division: Physical Sciences and Engineering

CHM150 / General Chemistry I**4 Credits / 4.0 Periods for Lecture**

Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL. Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM150AA / General Chemistry I**5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture**

Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. Course Notes: Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM151 / General Chemistry I**3 Credits / 3.0 Periods for Lecture**

Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM151LL. Arizona Shared Unique Number SUN#: CHM 1151. Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA.



SUN# CHM 1151

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM151AA / General Chemistry I**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Detailed study of principles of chemistry for science majors and students in pre-professional curricula. Prerequisites: A grade of C or better in [(CHM130 and CHM130LL), or CHM130AA, or one year of high school chemistry taken within the last five years] and (a grade of C or better in MAT151 or higher level mathematics course, or satisfactory placement), or permission of the Instructor, or Department or Division Chair. Course Notes: Completion of all prerequisites within the last two years is recommended. Student may receive credit for only one of the following: CHM150 and CHM151LL, or CHM151 and CHM151LL, or CHM150AA, or CHM151AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM151LL / General Chemistry I Laboratory**1 Credit / 3.0 Periods for Laboratory**

Laboratory experience in support of CHM150 or CHM151. Prerequisites:

A grade of C or better in CHM150 or CHM151 or Corequisites: CHM150

or CHM151 Course Notes: Student may receive credit for only one of

the following: CHM150 and CHM151LL, or CHM151 and CHM151LL,

or CHM150AA, or CHM151AA. General Education Designation: Natural

Sciences (Quantitative) - [SQ] in combination with: CHM150 or CHM151



SUN# CHM 1151

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative

[SQ]-in combo

Division: Physical Sciences and Engineering

**CHM152 / General Chemistry II****3 Credits / 3.0 Periods for Lecture**

A study of the chemical properties of the major groups of elements,

equilibrium theory, thermodynamics, electrochemistry, and other

selected topics. Prerequisites: A grade of C or better in [(CHM150 or

CHM151) and CHM151LL], or CHM150AA, or CHM151AA, or permission

of the Instructor, or Department or Division Chair. Course Notes:

General Education Designation: Natural Sciences (Quantitative) - [SQ]

in combination with: CHM152LL. Arizona Shared Unique Number

SUN# CHM1152. Completion of prerequisites within the last two years

recommended. Completion of CHM152LL required to meet the Natural

Science requirement. Student may receive credit for only one of the

following: CHM152 and CHM152LL, or CHM152AA.



SUN# CHM 1152

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative

[SQ]-in combo

Division: Physical Sciences and Engineering

CHM152AA / General Chemistry II**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

A study of the chemical properties of the major groups of elements,

equilibrium theory, thermodynamics, electrochemistry, and other selected

topics. Prerequisites: A grade of C or better in [(CHM150 or CHM151)

and CHM151LL], or CHM150AA, or CHM151AA, or permission of the

Instructor, or Department or Division Chair. Course Notes: Completion

of prerequisites within the last two years recommended. Student may

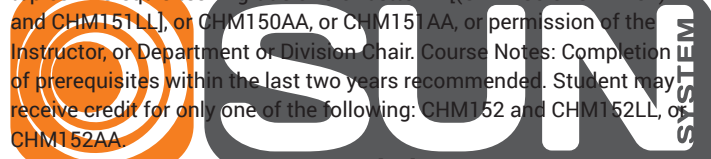
receive credit for only one of the following: CHM152 and CHM152LL, or

CHM152AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative

[SQ]-in combo

Division: Physical Sciences and Engineering



CHM152LL / General Chemistry II Laboratory**1 Credit / 3.0 Periods for Laboratory**

Laboratory experience in support of CHM152. Prerequisites: A grade of C or better in CHM152 or Corequisites: CHM152. Course Notes: Student may receive credit for only one of the following: CHM152 and CHM152LL, or CHM152AA. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM152



SUN# CHM 1152

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM154 / General Chemistry II with Qualitative Analysis**3 Credits / 3.0 Periods for Lecture**

A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, kinetics, electrochemistry, and other selected topics. Includes qualitative analysis. Prepares students for all sophomore chemistry courses. Prerequisites: A grade of C or better in [(CHM150 or CHM151) and CHM151LL] or CHM150AA, or permission of the Instructor, or Department or Division Chair. Course Notes: General Education Designation: Natural Sciences (Quantitative) [SQ] in combination with: CHM154LL. Completion of prerequisites within the last two years recommended. Completion of CHM154LL required to meet the Natural Science requirement.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM154LL / General Chemistry II with Qualitative Laboratory**2 Credits / 6.0 Periods for Laboratory**

Laboratory experience in support of CHM154. Includes qualitative analysis. Prerequisites: A grade of C or better in CHM154 or Corequisites: CHM154. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM154

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM230 / Fundamental Organic Chemistry**3 Credits / 3.0 Periods for Lecture**

Chemistry of representative groups of organic compounds, emphasizing biological applications. Prerequisites: A grade of C or better in (CHM130 and CHM130LL) or (CHM150 or CHM151 and CHM151LL), or permission of the Instructor, or Department or Division Chair. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230LL. Arizona Shared Unique Number SUN#: CHM 2230. Completion of prerequisites within the last two years recommended. CHM230 course content is designed to meet the needs of students in such areas as agriculture, home economics, nursing, pre-physician assistant, and physical education among others.



SUN# CHM 2230

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering



CHM230LL / Fundamental Organic Chemistry Laboratory**1 Credit / 3.0 Periods for Laboratory**

Laboratory experience in support of CHM230. Prerequisites: A grade of C or better in CHM130LL or CHM151LL, or equivalent. Prerequisites or Corequisites: CHM230. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: CHM230



SUN# CHM 2230

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

CHM235 / General Organic Chemistry I**3 Credits / 3.0 Periods for Lecture**

Rigorous introduction to chemistry of carbon-containing compounds. Reaction mechanisms and recent methods of synthesis emphasized. Prerequisites: A grade of C or better in (CHM152 and CHM152LL), or CHM152AA, or (CHM154 and CHM154LL), or permission of the Instructor, or Department or Division Chair. Course Notes: Completion of prerequisites within the last two years recommended.



SUN# CHM 2235

Division: Physical Sciences and Engineering



CHM235LL / General Organic Chemistry I Laboratory

1 Credit / 4.0 Periods for Laboratory

Laboratory experience in support of CHM235. Prerequisites: A grade of C or better in CHM235 or Corequisites: CHM235. Completion of prerequisites within the last two years recommended.



SUN# CHM 2235

Division: Physical Sciences and Engineering

CHM236 / General Organic Chemistry IIA

3 Credits / 3.0 Periods for Lecture

Study of chemistry of carbon-containing compounds continued. Structural determination and additional reaction mechanisms and modern methods of synthesis emphasized. Prerequisites: A grade of C or better in CHM235 and CHM235LL, or permission of the Instructor, or Department or Division Chair. Course Notes: Completion of prerequisites within the last two years recommended.



SUN# CHM 2236

Division: Physical Sciences and Engineering



CHM236LL / General Organic Chemistry IIA Laboratory**1 Credit / 4.0 Periods for Laboratory**

Laboratory experience in support of CHM236. Prerequisites: A grade of C or better in CHM236 or Corequisites: CHM236. Completion of prerequisites within the last two years recommended.



SUN# CHM 2236

Division: Physical Sciences and Engineering

CHM260 / Fundamental Biochemistry**3 Credits / 3.0 Periods for Lecture**

Structures, properties, and functions of proteins, enzymes, nucleic acids, carbohydrates and lipids; the utilization and synthesis of these materials by living systems and the relationship of the processes to energy production and utilization. Prerequisites: A grade of C or better in (CHM230 and CHM230LL) or (CHM235 and CHM235LL), or permission of the Instructor, or Department or Division Chair. Course Notes: Completion of prerequisites within the last two years recommended. Designed for students in agriculture, dental hygiene, home economics, nursing, and physical therapy.

Division: Physical Sciences and Engineering

Chicana and Chicano Studies (CCS)**CCS101 / Chicana and Chicano Studies****3 Credits / 3.0 Periods for Lecture**

Introduction to the wealth and diversity of Chicana and Chicano Studies research from a variety of disciplinary perspectives through the use of a series of historical and social scientific studies, novels, testimonies, and films. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

CCS202 / Ethnic Relations in the United States**3 Credits / 3.0 Periods for Lecture**

Basic concepts and processes, including historic overview, of inter-ethnic relations in the United States: culture, race, ethnicity, ethnocentrism, prejudice, discrimination, racism, assimilation, acculturation, and individual and group responses to inter-ethnic contact. Cultural knowledge and intercultural communication skills and perspectives as fundamental tools for successful management of social relations in a multicultural world. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

Child/Family Studies (CFS)**CFS101AH / Art Activities for the Young Child****1 Credit / 1.0 Periods for Lecture**

The creative use of art media and techniques at appropriate developmental levels. Prerequisites: None.

Division: Social & Behavioral Sciences

CFS112 / Personal Growth and Family Relations**3 Credits / 3.0 Periods for Lecture**

Personal development as related to the individual, the family, and their relations. Emphasis on interpersonal family relationships. Skills and techniques to facilitate and strengthen the individual and family relationships. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

CFS123 / Health and Nutrition in Early Childhood Settings**1 Credit / 1.0 Periods for Lecture**

Creating and maintaining healthy environments and practices in programs serving young children. Emphasis on assessing the child's health status, nutrition and food service, communicable disease recognition, transmission, and prevention, infection control, regulations and regulatory agencies, current topics, resources, and innovative practices. Prerequisites: None.

Division: Social & Behavioral Sciences

CFS125 / Safety In Early Childhood Settings**1 Credit / 1.0 Periods for Lecture**

Fundamental concepts of promoting a safe, but challenging learning environments. Establishing and maintaining safety procedures in the early childhood setting. Emphasis on indoor and outdoor equipment and activities, risk analysis, accident, evacuation, and emergency plans, regulations, regulatory agencies and resources, current topics, and innovative practices. Prerequisites: None.

Division: Social & Behavioral Sciences

CFS157 / Marriage and Family Life**3 Credits / 3.0 Periods for Lecture**

Study of marriage and the family as a social system, including models of family analysis, intrapersonal and interpersonal relations, and cross-cultural and historical patterns. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

CFS159 / The Modern Family**3 Credits / 3.0 Periods for Lecture**

An examination of the modern American family. Special emphasis on the changing functions and roles of individuals within today's society and an analysis of the basic problems confronting the family, including alternative family styles. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

CFS176 / Child Development**3 Credits / 3.0 Periods for Lecture**

Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

CFS205 / Human Development**3 Credits / 3.0 Periods for Lecture**

Explores the growth and development process over the human life span. Research and theoretical approaches; physical, cognitive, social, and personality development from birth through adulthood and death. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

CFS235 / Developing Child: Theory into Practice, Prenatal to Age Eight**3 Credits / 3.0 Periods for Lecture**

Understanding and working with young children, birth through age eight. Analysis of young children's physical, social, emotional, cognitive and linguistic development within their home, school, and cultural contexts. Typical and atypical development. Implications for teachers and parents. Emphasis on observations and planning curriculum based on theories, research, and child-specific data. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

CFS259 / Sexuality over the Life Span**3 Credits / 3.0 Periods for Lecture**

Examination of the physical, psychological, social, and cultural contributions to human sexuality. Emphasis on family life and cultural variation. Examination of facts and myths, current literature, and changing mores regarding human sexuality. Sexuality of males and females in contemporary society; impact of sexual trends on society; home/school issues in sexuality education. Prerequisites: Permission of Department or Division. Student must be 18 years or older.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

CFS269 / Child Care Seminar**1 Credit / 1.0 Periods for Lecture**

Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues. Prerequisites: Permission of Department or Division. Course Notes: CFS/ECH269 may be repeated for a total of three (3) credit hours.

Division: Social & Behavioral Sciences

CFS271 / Arranging the Environment**1 Credit / 1.0 Periods for Lecture**

Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. Prerequisites: None.

Division: Social & Behavioral Sciences

CFS273 / Math for the Young Child**1 Credit / 1.0 Periods for Lecture**

Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget. Prerequisites: None.

Division: Social & Behavioral Sciences

CFS275 / Literacy Development and the Young Child**1 Credit / 1.0 Periods for Lecture**

Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom. Prerequisites: None.

Division: Social & Behavioral Sciences

CFS282 / Mainstreaming The Young Child With a Disability**1 Credit / 1.0 Periods for Lecture**

An exploration of the educational, social, and behavioral issues and concerns involved in the successful integration of children with disabilities into typical preschool classes. Includes discussion of practical concerns such as adaptation of environment and accessing existing resources in the community. Prerequisites: None.

Division: Social & Behavioral Sciences

CFS284AA / Early Childhood Teaching Internship**1 Credit / 1.0 Periods for Lecture & Lab**

Work experience in child care centers. 80 hours of designated work per credit. Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. Course Notes: CFS/ECH284AA may be repeated for a total of six (6) credit hours.

Division: Social & Behavioral Sciences

CFS284AB / Early Childhood Teaching Internship**3 Credits / 3.0 Periods for Lecture & Lab**

Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed. Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. Corequisites: CFS/ECH269.

Division: Social & Behavioral Sciences

CFS287 / Professional Development in Early Childhood Education**1 Credit / 1.0 Periods for Lecture**

Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning. Prerequisites: None.

Division: Social & Behavioral Sciences

Cisco Network Technology (CNT)

CNT140AA / Introduction to Networks

4 Credits / 6.0 Periods for Lecture & Lab

Introduces the architecture, structure, functions, components, and models of the Internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. Prerequisites: None.

Division: Business and Computing Studies

CNT140AB / Introduction to Networks

4 Credits / 6.0 Periods for Lecture & Lab

Focus on the architecture, structure, functions, components, and models of the Internet and other computer networks. Principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced. Students will build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Preparation for Cisco certification examination. Prerequisites: None.

Division: Business and Computing Studies

CNT150AA / Cisco - Routing and Switching Essentials

4 Credits / 6.0 Periods for Lecture & Lab

Architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. Configuration and troubleshooting routers and switches and resolving common issues with RIPv1, RIPng, single-area and multi-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT140AA or permission of Instructor.

Division: Business and Computing Studies

CNT150AB / Switching, Routing, and Wireless Essentials

4 Credits / 6.0 Periods for Lecture & Lab

Focus on configuring switches and routers for use in small and medium size networks. Including Virtual Local Area Networks (VLANs), VLAN trunking, Inter-VLAN routing, Spanning Tree Protocol (STP), EtherChannel, Dynamic Host Configuration Protocol (DHCP), First Hop Redundancy, Local area Network (LAN) and Switch security, and Static routing. Knowledge and skills needed to implement a Wireless Local Area Network (WLAN) is also covered. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT140AB or permission of Instructor.

Division: Business and Computing Studies

CNT160AA / Scaling Networks

4 Credits / 6.0 Periods for Lecture & Lab

Architecture, components, and operations of routers and switches in large and complex networks. Configuring routers and switches for advanced functionality. Configuring and troubleshooting routers and switches and resolving common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Developing the knowledge and skills needed to implement a WLAN in a small-to-medium network. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT150AA, or permission of Instructor.

Division: Business and Computing Studies

CNT160AB / Enterprise Networking, Security, and Automation

4 Credits / 6.0 Periods for Lecture & Lab

Focus on the configuration of routers and switches within small and medium size networks for advanced functionality including Open Shortest Path First (OSPF), Network security, Access Control Lists (ACLs), Network Address Translation (NAT), Wide Area Network (WAN) concepts, Virtual Private Networks (VPNs), Quality of Service (QoS), network management, design, troubleshooting, virtualization, and automation. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT150AB or permission of Instructor.

Division: Business and Computing Studies

CNT170AA / Cisco - Connecting Networks

4 Credits / 6.0 Periods for Lecture & Lab

Wide Area Network (WAN) technologies and network services required by converged applications in a complex network. Criteria selection of network devices and WAN technologies to meet network requirements. Configuring and troubleshooting network devices, and resolving common issues with data link protocols issues, and developing the knowledge and skills needed to implement Internet Protocol Security (IPSec) and Virtual Private Network (VPN) operations. Preparation for Cisco certification examination. Prerequisites: A grade of C or better in CNT160AA, or permission of Instructor.

Division: Business and Computing Studies

CNT171 / CCNA Exam Prep

1 Credit / 2.0 Periods for Lecture & Lab

Preparation for renewal of CCNA certification by reviewing the Open Systems Interconnection (OSI) model and industry standards including network topologies, IP addressing, subnet masks, access control list, basic network design and cable installation. Practice the skills to configure, customize, maintain and troubleshoot Cisco routers and switches for Local Areas Networks (LANs) and Wide Area Networks (WANs) using Cisco IOS command set. Review any new material introduced since the last CCNA exam version. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor. Course Notes: CNT171 can be offered on credit (P) No credit (Z) basis. Standard grading available according to procedures outlined in college catalog.

Division: Business and Computing Studies

CNT200 / CCNP ROUTE: Implementing Cisco IP Routing

4 Credits / 6.0 Periods for Lecture & Lab

Development of knowledge and skills needed to manage Internet Protocol (IP) traffic and access, understand scalable internetworks and Quality of Service (QoS), configure advanced routing protocols Border Gateway Protocol [BGP], Intermediate System to Intermediate System [IS-IS], Enhanced Interior Gateway Routing Protocol [EIGRP], Open Shortest Path First [OSPF], as well as multicast routing, Internet Protocol (IPv6), and perform advanced IP addressing configuration, Dynamic Host Configuration Protocol (DHCP). Preparation for Cisco Certified Network Professional (CCNP) exam. Prerequisites: A grade of C or better in CNT160AB, or CCNA industry certification, or permission of Instructor. Corequisites: CNT220. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.

Division: Business and Computing Studies

CNT202 / Cisco Secure Firewall Appliance Configuration**4 Credits / 5.0 Periods for Lecture & Lab**

Applications of Cisco Networking technologies in designing and implementing security solutions to reduce risk of revenue loss and vulnerability. Hands-on experience and skills in security policy design and management, security technologies, products and solutions, secure firewall design, installation, configuration and maintenance, Authentication, Authorization, and Accounting (AAA), Failover, and Virtual Private Network (VPN) implementation using firewalls. Prerequisites: A grade of C or better in CNT160AB or permission of Instructor.

Division: Business and Computing Studies

CNT205 / Cisco Certified Network Associate Security**4 Credits / 6.0 Periods for Lecture & Lab**

Associate-level knowledge and skills required to secure Cisco networks. Development of a security infrastructure, identification of threats and vulnerabilities to networks. Mitigation of security threats. Core security technologies. Installation, troubleshooting and monitoring of network devices to maintain integrity, confidentiality and availability of data and devices. Competency in the technologies that Cisco uses in its security structure. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) certification, or permission of Instructor.

Division: Business and Computing Studies

CNT206 / Cisco Certified Network Associate Wireless**4 Credits / 6.0 Periods for Lecture & Lab**

Associate-level knowledge and skills required in Cisco wireless networks. Includes comprehensive hands-on labs to design, plan, implement, operate, secure, and troubleshoot wireless networks. Prerequisites: A grade of C or better in CNT160AB or permission of Instructor. Course Notes: Prepares students to earn Cisco Certified Network Associate Wireless (CCNA Wireless) designation by taking the Implementing Cisco Unified Wireless Networks Essentials (IUWNE) exam.

Division: Business and Computing Studies

CNT220 / CCNP SWITCH: Implementing Cisco IP Switching**4 Credits / 6.0 Periods for Lecture & Lab**

Development of knowledge and skills in building, monitoring, and maintaining switching in converged enterprise networks using advanced and multi-layer switching technologies. Planning, configuring, securing and verifying the implementation of complex enterprise switching solutions. Hands-on learning and practice to reinforce configuration skills. Prerequisites: A grade of C or better in CNT160AB, or CCNA industry certification, or permission of Instructor. Corequisites: CNT200. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.

Division: Business and Computing Studies

CNT231 / CCNP TSHOOT: Maintaining and Troubleshooting Cisco IP Networks**4 Credits / 6.0 Periods for Lecture & Lab**

Development of knowledge and skills in monitoring and maintaining complex enterprise routed and switched Internet Protocol (IP) networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices, in a systematic approach. Extensive labs emphasize hands-on learning and practice to reinforce configuration skills. Prerequisites: A grade of C or better in CNT200 and CNT220, or permission of Instructor. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) exam.

Division: Business and Computing Studies

CNT240 / Cisco Certified Network Professional: Enterprise Core**8 Credits / 12.0 Periods for Lecture & Lab**

Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.

Division: Business and Computing Studies

CNT240AA / Cisco Certified Network Professional: Enterprise Core I**4 Credits / 6.0 Periods for Lecture & Lab**

Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.

Division: Business and Computing Studies

CNT240AB / Cisco Certified Network Professional: Enterprise Core II**4 Credits / 6.0 Periods for Lecture & Lab**

Provides Cisco Certified Network Professional (CCNP) Enterprise knowledge and skills needed for professional-level networking technologies and architecture. Topics include virtualization, network assurance, security, and automation. Helps to prepare students to take the Cisco Enterprise Network Core Technologies (ENCOR) certification exam aligned with the CCNP Enterprise, CCIE Enterprise Infrastructure, CCIE Enterprise Wireless, and Cisco Certified Specialist - Enterprise core certifications. Prerequisites: A grade of C or better in CNT240AA. Course Notes: Preparation for Cisco Certified Network Professional (CCNP) ENCOR exam.

Division: Business and Computing Studies

CNT250 / Cisco Certified Network Professional: Enterprise Advanced Routing and Services**8 Credits / 12.0 Periods for Lecture & Lab**

Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARS) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.

Division: Business and Computing Studies

CNT250AA / Cisco Certified Network Professional: Enterprise Advanced Routing and Services I**4 Credits / 6.0 Periods for Lecture & Lab**

Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Prerequisites: A grade of C or better in CNT160AB, or Cisco Certified Network Associate (CCNA) industry certification, or permission of Instructor.

Division: Business and Computing Studies

CNT250AB / Cisco Certified Network Professional: Enterprise Advanced Routing and Services II**4 Credits / 6.0 Periods for Lecture & Lab**

Provides Cisco Certified Network Professional (CCNP) Enterprise advanced knowledge and skills needed for professional-level networking technologies and architecture. Covers the implementation and troubleshooting of advanced routing technologies and services including Layer 3 VPN services, infrastructure security, and infrastructure services. Helps to prepare students to take the Implementing Cisco Enterprise Network Advanced Routing and Services (ENARSI) certification exam aligned with the CCNP Enterprise, Cisco Certified Specialist - Advanced Infrastructure Implementation certifications. Prerequisites: A grade of C or better in CNT250AA.

Division: Business and Computing Studies

Cloud Computing (CLD)

CLD110 / Amazon Web Services Cloud Foundations**3 Credits / 4.0 Periods for Lecture & Lab**

Provides a detailed overview of cloud concepts, Amazon Web Services (AWS) core services, security, architecture, pricing, and support. Intended for students who seek an overall understanding of cloud computing concepts, independent of specific technical roles. Helps to prepare students for the AWS Certified Cloud Practitioner exam. Prerequisites: None. CIS105 suggested but not required.

Division: Business and Computing Studies

CLD120 / Amazon Web Services Cloud Architect Associate**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamentals of building IT infrastructure on Amazon Web Services (AWS). Focus on how to optimize use of the AWS Cloud by understanding AWS services and best practices for the AWS Cloud and how they fit into cloud-based solutions. Covers design patterns for architecting optimal IT solutions on AWS, as well as strategies and services implemented on AWS. Prerequisites: A grade of C or better in CLD110 or permission of Instructor.

Division: Business and Computing Studies

Communication (COM)

COM095 / Basic Oral Communication Skills**3 Credits / 3.0 Periods for Lecture**

Listening, speaking, and related academic performance skills, including note taking. Emphasis on activities designed to improve and synthesize these skills. Prerequisites: None.

Division: Communication & Fine Arts

COM100 / Introduction to Human Communication**3 Credits / 3.0 Periods for Lecture**

Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. Prerequisites: None.



SUN# COM 1100

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM100AA / Introduction to Human Communication Part I**1 Credit / 1.0 Periods for Lecture**

Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. Prerequisites: None. Course Notes: General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AB and COM100AC.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM100AB / Introduction to Human Communication Part II**1 Credit / 1.0 Periods for Lecture**

Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. Prerequisites: None. Course Notes: General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AA and COM100AC.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM100AC / Introduction to Human Communication Part III**1 Credit / 1.0 Periods for Lecture**

Introduces the theory and practice of human communication. Surveys communication topics related to interpersonal, small group, and public communication. Prerequisites: None. Course Notes: General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM100AA and COM100AB.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM110 / Interpersonal Communication**3 Credits / 3.0 Periods for Lecture**

Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships.

Prerequisites: None.



SUN# COM 1110

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM110AA / Interpersonal Communication Part I**1 Credit / 1.0 Periods for Lecture**

Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships.

Prerequisites: None. Course Notes: General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM110AB and COM110AC.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM110AB / Interpersonal Communication Part II**1 Credit / 1.0 Periods for Lecture**

Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships.

Prerequisites: None. Course Notes: General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM110AA and COM110AC

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM110AC / Interpersonal Communication Part III**1 Credit / 1.0 Periods for Lecture**

Theory and practice of communication skills which affect day-to-day interactions with other persons. Topics may include using verbal and nonverbal symbols, interactive listening, resolving interpersonal conflict, developing and maintaining personal and professional relationships.

Prerequisites: None. Course Notes: General Education Designation: Social-Behavioral Sciences - [SB] in combination with: COM110AA and COM110AB

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM163 / Intercultural Communication in Everyday Life**3 Credits / 3.0 Periods for Lecture**

Provides knowledge to promote greater understanding and application of intercultural communication in social and organizational interactions. For advanced non-native English speakers. Prerequisites: Appropriate English placement test score at the ENG101 or ENG107 level, or a grade of "C" or better in ENG091 or ESL097, or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Global Awareness [G]; Global Awareness [G]-in combo

Division: Communication & Fine Arts

COM207 / Introduction to Communication Inquiry**3 Credits / 3.0 Periods for Lecture**

Overview of theory and methodological practice in communication with particular attention to scholarly writing skills. Emphasis on development of critical thinking skills through active participation in the research process. Prerequisites: A grade of C or better in ENG101 or ENG107 or equivalent, and COM100 or equivalent, or permission of Instructor. Course Notes: Recommended for the communication major.

Division: Communication & Fine Arts

COM222 / Argumentation**3 Credits / 3.0 Periods for Lecture**

Discussion and practice of the use of evidence, applied reasoning, recognition of fallacies, selection of arguments, and methods of analyzing issues. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Communication & Fine Arts

COM225 / Public Speaking**3 Credits / 3.0 Periods for Lecture**

Designed to enhance the student's ability to present public speeches confidently and competently. Also designed to improve information literacy and critical thinking skills. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Communication & Fine Arts

COM230 / Small Group Communication**3 Credits / 3.0 Periods for Lecture**

Principles and processes of small groups and development of skills for participation and leadership in small group settings. Practice in problem solving, decision making, and information sharing. Prerequisites: None.



SUN# COM 2271

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM241 / Oral Interpretation of Literature**3 Credits / 3.0 Periods for Lecture**

The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences.

Prerequisites: A grade of C or better in ENG101 or ENG107.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Communication & Fine Arts

**COM250 / Introduction to Organizational Communication****3 Credits / 3.0 Periods for Lecture**

Introduction to the study of communication in organizations including identification of variables, roles and patterns influencing communication in organizations. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

COM259 / Communication in Business and Professions**3 Credits / 3.0 Periods for Lecture**

Interpersonal, organizational, intercultural, group, and public communication in business and professional organizations. Emphasis on oral communication and the effective use of technology and new media. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Division: Communication & Fine Arts

COM263 / Elements of Intercultural Communication**3 Credits / 3.0 Periods for Lecture**

Diverse cultural contexts are explored through basic concepts, principles, and theories of intercultural communication. Discovering effective interaction and appropriate communication in a global community is emphasized. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Communication & Fine Arts

Computer Information Systems (CIS)

CIS102DA / Customer User Support**3 Credits / 4.0 Periods for Lecture & Lab**

Examines skills, tools and strategies necessary for becoming a computer help-desk or end-user support professional. Prerequisites: None.

Division: Business and Computing Studies

CIS103 / Introduction to Social Media**3 Credits / 4.0 Periods for Lecture & Lab**

Identify and explain social media and Web 2.0 technologies for personal, academic, professional, and business applications. Create and maintain accounts on various sites to socialize, write, and share multimedia, while understanding the related ethics, privacy and security issues.

Prerequisites: None. Course Notes: Students must be 13 years or older to enroll in CIS103 as students are required to create social media accounts for course participation.

Division: Business and Computing Studies

CIS105 / Survey of Computer Information Systems**3 Credits / 4.0 Periods for Lecture & Lab**

Overview of computer technology, concepts, terminology, and the role of computers in business and society. Discussion of social and ethical issues related to computers. Use of word processing, spreadsheet, database, and presentation software. Includes uses of application software and the Internet for efficient and effective problem solving. Exploration of relevant emerging technologies. Prerequisites: None.



SUN# CIS 1120

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CIS111 / Ethics in Information Technology**3 Credits / 3.0 Periods for Lecture**

Ethical issues that arise as a result of increasing use of computers, and the responsibilities of those who work with computers, either as computer science professionals or end users. Critical inquiry and review of ethical challenges in information technology business, including professional and corporate responsibility, government regulation, fiduciary responsibilities of information, infringement of intellectual property, security risk assessment, Internet crime, identity theft, employee surveillance, privacy, compliance, social networking, and the ethics of corporations. Prerequisites: None.

Division: Business and Computing Studies

CIS113DE / Microsoft Word: Word Processing**3 Credits / 4.0 Periods for Lecture & Lab**

Using word processing software to create, name and manage files, edit text, format, apply themes and styles, create and modify tables, apply desktop publishing features, and print a variety of types of documents. Prerequisites: None.

Division: Business and Computing Studies

CIS114DE / Excel Spreadsheet**3 Credits / 4.0 Periods for Lecture & Lab**

Computer spreadsheet skills for solving business problems using Excel, including calculations, forecasting, projections, macro programming, database searching, extraction, linking, statistics, and matrix manipulation. Production of graphs and reports. Project design using multiple, integrated spreadsheets. Prerequisites: None.

Division: Business and Computing Studies

CIS117DM / Microsoft Access: Database Management**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to Microsoft Access. Emphasis on features, design, and database management. Prerequisites: None. Course Notes: CIS117DM combines the contents of CIS117AM, CIS117BM and CIS117CM.

CIS117DM may be repeated for a total of nine (9) credit hours.

Division: Business and Computing Studies

CIS118DB / Desktop Presentation: PowerPoint**3 Credits / 4.0 Periods for Lecture & Lab**

Use of PowerPoint to produce professional-quality presentation visuals with animation and sound. Prerequisites: None.

Division: Business and Computing Studies

CIS119DO / Introduction to Oracle: SQL**3 Credits / 4.0 Periods for Lecture & Lab**

Use of Oracle tools and methodologies to fulfill real-world business information requirements. Hands-on exercises for designing, creating, and maintaining database structures to store, retrieve, update, and display data in a relational database using the SQL programming language. Creating and maintaining database objects. Advanced retrieval techniques. A grade of C or better required in all Prerequisites.

Prerequisites or Corequisites: CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS119DP / Oracle: Database Administration**3 Credits / 4.0 Periods for Lecture & Lab**

Basic administrative tasks performed by a database administrator (DBA). Conceptual understanding and hands-on applications of the Oracle database architecture and interaction of its components. Prerequisites: A grade of C or better in CIS119DO, or permission of Instructor. (CIS126++ or CIS121++ or MST152++) is recommended.

Division: Business and Computing Studies

CIS120DA / Introduction to Adobe Premiere**3 Credits / 4.0 Periods for Lecture & Lab**

Foundations of video import, export, and editing. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Prepares students for the Adobe Certifications related to Adobe Premiere. Prerequisites: None.

Division: Business and Computing Studies

CIS120DB / Introduction to Adobe Illustrator**3 Credits / 4.0 Periods for Lecture & Lab**

Provides students with the knowledge and skills to use Adobe Illustrator graphics software on a computer. Basic foundation course in the use of electronic techniques to create, manipulate, and edit images, text, abstract art, graphics design, color graphics and business charts; determine file formats appropriate for web and print; utilize tools to optimize graphics and create a PDF file. Prerequisites: None.

Division: Business and Computing Studies

CIS120DC / Introduction to Adobe Animate**3 Credits / 4.0 Periods for Lecture & Lab**

Focuses on entry-level skill expectations for digital animation using Adobe Animate. Covers basic animation techniques used in the creation, manipulation, and editing of animation graphics. Prepares students for the Adobe certifications related to Adobe Animate. Prerequisites: None.

Division: Business and Computing Studies

CIS120DF / Introduction to Adobe Photoshop**3 Credits / 4.0 Periods for Lecture & Lab**

Focuses on entry-level skills and knowledge for digital imaging using Adobe Photoshop. Prepares students for the Adobe Certifications related to Photoshop. Prerequisites: None.

Division: Business and Computing Studies

CIS120DK / Introduction to Digital Video Editing**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to digital video editing comprises of a foundation for video import, export, and editing functions. Includes parts and function of a video camera, preproduction and production, incorporating photographs, titles, graphics, animation and audio, capturing, editing, rendering and outputting digital video. Prerequisites: None.

Division: Business and Computing Studies

CIS121AB / Microsoft Command Line Operations**1 Credit / 2.0 Periods for Lecture & Lab**

Use of the Microsoft command line interface: basic concepts, internal and external commands, subdirectories, and editor. Prerequisites: None.

Division: Business and Computing Studies

CIS121AE / Windows Operating System: Level I**1 Credit / 2.0 Periods for Lecture & Lab**

Specific topics include Windows basics, navigating and customizing the desktop, maintaining hardware and software, improving performance, configurations, securing your computer, taskbar, organizing, searching and managing folders and files, installing and uninstalling applications, Internet Explorer fine tuning, security, and searching, including advanced search techniques, keyboard shortcuts, and current topics. Prerequisites: None.

Division: Business and Computing Studies

CIS121AH / Microsoft PowerShell/Command Line Operations**3 Credits / 4.0 Periods for Lecture & Lab**

Day-to-day command line administration tasks of Microsoft Windows. PowerShell used to create scripts to administer Microsoft windows environment. Prerequisites: None. MST150++ suggested but not required.

Division: Business and Computing Studies

CIS121AI / Mac Operating System**1 Credit / 2.0 Periods for Lecture & Lab**

Specific topics include getting started with Mac OS; working with disks, folders, and files; installing and using applications; setting system preferences; printing, faxing, and scanning; getting and living online; using iLife; sharing a Mac with other users; creating a home network; and maintaining the Mac. Prerequisites: None.

Division: Business and Computing Studies

CIS122AE / Windows Operating System: Level II**1 Credit / 2.0 Periods for Lecture & Lab**

Additional capabilities of the Windows program that configure devices and customize the presentation of the operating system. System tools, control panel utilities, the My Computer, Network Neighborhood, and Microsoft Exchange desktop icons. Other helpful utilities presented. Prerequisites: A grade of C or better in CIS121AE, or permission of Instructor.

Division: Business and Computing Studies

CIS124AA / Project Management Software: Level I**1 Credit / 1.7 Periods for Lecture & Lab**

Utilization of project management software packages by managers and advanced business students to solve critical management planning tasks. Evaluation of management opportunities utilizing software packages to monitor project progress and resource allocation. Includes "what-if" analyses, and preparation of management reports. Prerequisites: None.

Division: Business and Computing Studies

CIS124BA / Project Management Software: Level II**1 Credit / 1.7 Periods for Lecture & Lab**

Advanced use of project management software. Covers features and functions to solve critical management planning tasks. Project communications, scheduling, resource allocation, tracking processes and importing and exporting data also covered. Project consolidation emphasized. Prerequisites: A grade of C or better in CIS124AA or permission of Instructor.

Division: Business and Computing Studies

CIS126DL / Linux Operating System**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to the Linux Operating system. Develop knowledge and skills required to install, configure and troubleshoot a Linux-based workstation including basic network functions. Learn basic command line and Graphical User Interface (GUI) desktop environment utilities and applications. Fundamental abilities to achieve the entry-level industry certification covered. Prerequisites: None.

Division: Business and Computing Studies

CIS126RH / Red Hat System Administration I**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps prepare for the Red Hat certification exams using a hands-on, task-focused curriculum. Prerequisites: None.

Division: Business and Computing Studies

CIS133AA / Internet/Web Development Level I-A**1 Credit / 2.0 Periods for Lecture & Lab**

Overview of the Internet and its resources. Hands-on experience with various Internet communication tools. Prerequisites: None.

Division: Business and Computing Studies

CIS133BA / Internet/Web Development Level I-B**1 Credit / 1.0 Periods for Lecture & Lab**

Exploration of additional Internet resources. Hands-on experience with a variety of resource discovery and information retrieval tools as well as enhancement of Web pages. Prerequisites: A grade of C or better in CIS133AA.

Division: Business and Computing Studies

CIS133CA / Internet/Web Development Level I-C**1 Credit / 1.0 Periods for Lecture & Lab**

Web site development using enhancement codes. Includes frames, style sheets and Javascript as well as design principles and typography. Prerequisites: A grade of C or better in CIS133BA.

Division: Business and Computing Studies

CIS133DA / Internet/Web Development Level I**3 Credits / 4.0 Periods for Lecture & Lab**

Overview of the Internet/World Wide Web (WWW) and its resources. Hands-on experience with various Internet/WWW resource discovery, information retrieval, and social media tools. Design and Development of multi-page websites using current Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS) standards. Prerequisites: None.

Division: Business and Computing Studies

CIS136 / Content Management Systems: WordPress**3 Credits / 4.0 Periods for Lecture & Lab**

Overview of WordPress Content Management System. Includes hands-on design and creation of web pages and blogs for the World Wide Web. Designed to cover best practices for web site/blog creation. Prerequisites: None.

Division: Business and Computing Studies

CIS138DA / Desktop Design and Publishing Using Adobe InDesign**3 Credits / 4.0 Periods for Lecture & Lab**

Use of Adobe InDesign to compose and print textual and graphic materials of high quality. Includes word processing of copy, use of graphics programs, layout of design elements, printing alternatives, and file formats. Prerequisites: None.

Division: Business and Computing Studies

CIS143 / Introduction to Critical Infrastructure Protection**3 Credits / 3.0 Periods for Lecture**

History and overview of critical infrastructure protection and its ties within the Department of Homeland Security prior to and after September 11, 2001. Focus on risk management associated with sectors specific industries and provides an overview of the public and private partnerships, along with laws and standards developed to protect critical infrastructures. Prerequisites: A grade of C or better in CIS111 or permission of Instructor.

Division: Business and Computing Studies

CIS150 / Programming Fundamentals**3 Credits / 4.0 Periods for Lecture & Lab**

Structured program design and logic tools. Use of computer problems to demonstrate and teach concepts using appropriate programming language. A grade of C or better required in all Prerequisites.

Prerequisites or Corequisites: CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS150AB / Object-Oriented Programming Fundamentals**3 Credits / 4.0 Periods for Lecture & Lab**

Structured and Object-Oriented design and logic tools. Use of computer problems to demonstrate and teach concepts using an appropriate programming language. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS151 / Computer Game Development -Level I**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to object-oriented game development, game design, and game theory. Use of computer software to demonstrate and teach concepts using an appropriate game development platform to model real-time simulations and create computer games using object oriented tools. Introduction to developing PC games, educational software, and training software using windows based object oriented developments tools. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS154 / Database Modeling and Design**3 Credits / 4.0 Periods for Lecture & Lab**

Top-down, systematic approach to defining a database design based on analysis of business information and requirements. Identifying and evaluating standard data model and design patterns. Developing an entity-relationship (ER) diagram that accurately reflects the business. Mapping the ER diagram to an initial database design and revising for complex entities, attributes, and relationships. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS156 / Python Programming: Level I**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to Python programming. Includes general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS159 / Visual Basic Programming I**3 Credits / 4.0 Periods for Lecture & Lab**

Use of the Visual Basic programming language to solve problems using suitable examples from business or other disciplines. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS162 / C Programming I**3 Credits / 4.0 Periods for Lecture & Lab**

Beginning C programming. Includes features needed to construct programs, functions, pointers, input and output options, data types, structures, and unions, and disk file operations. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CIS162AB / C++: Level I**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CIS162AC / Visual C++: Level I**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to Visual C++ programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS162AD / C#: Level I**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to C# programming including general concepts, program design, development, data types, operators, expressions, flow control, functions, classes, input and output operations, debugging, structured programming, and object-oriented programming. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CIS163AA / Java Programming: Level I**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to Java programming. Includes features needed to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, and object-oriented programming. Prerequisites: A grade of C or better in CIS105 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CIS164AB / Oracle: PL/SQL Programming**3 Credits / 4.0 Periods for Lecture & Lab**

Writing PL/SQL procedures, functions, and packages. Creating and managing PL/SQL program units and database triggers in Oracle development environment. Managing dependencies and manipulating large objects. Prerequisites: A grade of C or better in CIS119DO, or permission of the Instructor.

Division: Business and Computing Studies

CIS165 / Introduction to iOS Application Development**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to iOS device programming utilizing the XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through the entire design process from concept to final product delivery. Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor.

Division: Business and Computing Studies

CIS165DA / Introduction to Android Application Development**3 Credits / 4.0 Periods for Lecture & Lab**

Beginning with an overview of Android features, this class explores the required software tools and programming techniques for developing Android device applications from creating the user interface, working with activities, intents and views, to using databases, providing data persistence, accessing device services, to debugging and publishing applications. Prerequisites: A grade of C or better in CIS150++, or CIS156, or CIS159, or CIS162++, or CIS163AA, or permission of Instructor.

Division: Business and Computing Studies

CIS165DB / C#/VB.NET: Windows 8 App Development**3 Credits / 4.0 Periods for Lecture & Lab**

Building upon desktop application development with Visual Studio using VB.NET or C# languages, developing apps for Windows 8 utilizes Extensible Application Markup Language (XAML) for interface design. Windows 8 utilizes UI design standards that are unique from previous versions. Develop apps for Windows 8 smartphones and tablets that utilize touch input methods, translate into different resolutions, states, and orientations, and can tap into mobile features such as location and acceleration sensors. Includes working with external data and packaging for Windows Store distribution. Prerequisites: A grade of C or better in CIS159 or CIS162AD or permission of Instructor.

Division: Business and Computing Studies

CIS165DC / Xamarin/C# Cross-Platform Development**3 Credits / 4.0 Periods for Lecture & Lab**

Develop cross-platform mobile apps for iOS, Android, and Windows devices using the Xamarin.Forms Platform and C#, utilizing the Visual Studio IDE. Focusing on Xamarin.Forms projects, the course includes PCL and SAP approaches to shared code, developing interfaces with XAML or in C# code, emulator testing, data binding, backgrounding, packaging for deployment. Coding techniques include Layouts and shared controls (views), MVVM pattern, LINQ, SQLite, and Dependency Injection for platform specific coding. Prerequisites: A grade of C or better in CIS162AD, or permission of Instructor.

Division: Business and Computing Studies

CIS166AA / Introduction to Javascript**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to basic JavaScript programming concepts including syntax. Covers Hypertext Markup Language (HTML), programming logic and debugging, as well as forms manipulation and animation. Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.

Division: Business and Computing Studies

CIS166AE / Web Scripting with PHP: Hypertext Preprocessor (PHP)**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to web scripting with PHP (PHP: Hypertext Preprocessor). Web application development using Hypertext Markup Language (HTML), PHP, programming logic, and Structured Query Language (SQL). Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.

Division: Business and Computing Studies

CIS189 / Virtualization and IT Solutions for Digital Businesses**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to Virtualization course is designed to teach basic virtualization computing concepts to learners. It then expands on the basic technical introduction provided and explores the concepts in more detail with an emphasis on mapping the technologies to business needs and solutions. This course is suitable for anyone who wants to know more about terms like "cloud" and "virtualization." It will serve as a foundation to build upon when students learn how to design, install and configure various cloud technologies. Prerequisites: None.

Division: Business and Computing Studies

CIS190 / Introduction to Networking**3 Credits / 4.0 Periods for Lecture & Lab**

Overview of networks. Emphasis on the elements of a network, current issues and products, and use of a network. Includes terminology, hardware and software components, connectivity, resource monitoring and sharing, electronic mail and messaging, and security issues. Helps prepare students for the CompTIA Network+ examination. Prerequisites: None. Corequisites: CIS105 or permission of Instructor.

Division: Business and Computing Studies

CIS197 / VMware ESXI Server Enterprise**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to vSphere and VMware ESXI server in the enterprise. Covers many aspects of virtualization for VMware ESXI server administration. Designed to develop knowledge and skills required to install, configure and troubleshoot a VMware ESXI Server (vSphere) including basic network functions. Prerequisites: A grade of C or better in [CIS105 and (BPC270 or MST150++) and (CIS126DL or CIS126RH) and (CIS190 or CNT140AB)] or permission of Instructor.

Division: Business and Computing Studies

CIS198 / VMware vSphere: Optimize and Scale**3 Credits / 4.0 Periods for Lecture & Lab**

VMware vSphere: Optimize and Scale is designed for experienced VMware vSphere users. It teaches advanced skills for configuring and maintaining a highly available and scalable virtual infrastructure. Through a mix of lecture and hands-on labs, you will configure and optimize the vSphere features that build a foundation for a truly scalable infrastructure and discuss when and where these features have the greatest effect. It enables you to understand vSphere at a deeper level and how to use advanced features and controls. Prerequisites: A grade of C or better in CIS197.

Division: Business and Computing Studies

CIS200 / VMware NSX: Install, Configure, Manage**3 Credits / 4.0 Periods for Lecture & Lab**

This comprehensive, fast-paced training course focuses on installing, configuring, and managing VMware NSX. This course covers NSX as a part of the software-defined data center platform, implementation use cases along with features of NSX, and functionality operating at Layer 2 through Layer 7 of the OSI model. Lecture and hands-on lab activities support the student's understanding of NSX features, functionality, and on-going management and control. Prerequisites: A grade of C or better in CIS197.

Division: Business and Computing Studies

CIS201 / Introduction to Operational Technology**3 Credits / 4.0 Periods for Lecture & Lab**

Differences between Operational Technology (OT) and Information Technology (IT). Focus on the components and their uses within an OT system. Addresses the inherent threats, physical and cyber related, to an OT system when connected to an IT system needed to be addressed in order to maintain security and resilience. Prerequisites: A grade of C or better in CIS272DB or permission of Instructor.

Division: Business and Computing Studies

CIS202 / Introduction to Smart Grid Security**3 Credits / 3.0 Periods for Lecture**

Focus on differences between control systems, used to control physical and computer information systems, used to process data, in the Power and Utility industry. Power Systems industry, system elements, functions and security risks are covered. Prerequisites: A grade of C or better in (CIS272DB and CIS143) or permission of Instructor.

Division: Business and Computing Studies

CIS203 / Principles of the Risk Management Framework**3 Credits / 4.0 Periods for Lecture & Lab**

History and overview of the Federal Information Security Modernization Act (FISMA) and its effect on cybersecurity management and oversight. Focus of the Risk Management Framework (RMF) and its use in the process of authorizing information systems to operate under the FISMA guidelines. Prerequisites: A grade of C or better in CIS272DB or permission of Instructor.

Division: Business and Computing Studies

CIS213DE / Advanced Microsoft Word: Word Processing**3 Credits / 4.0 Periods for Lecture & Lab**

Using advanced word processing software features to perform tasks such as mail merge, collaboration, web pages, math functions, macros, photo enhancements, graphics, tables, forms and manage long documents. Prerequisites: A grade of C or better in CIS113DE or (CIS113AE and CIS113BE and CIS113CE), or permission of Instructor.

Division: Business and Computing Studies

CIS214DE / Advanced Excel Spreadsheet: Level II**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced Excel spreadsheet features including formatting techniques, macros and Visual Basic for applications. Templates, built-in functions and lists as well as analysis tools including Pivot Tables and Goal Seek covered. Import and export data, workgroup collaboration and Internet features of Excel emphasized. Prerequisites: A grade of C or better in CIS114DE, or permission of Instructor.

Division: Business and Computing Studies

CIS217AM / Advanced Microsoft Access: Database Management**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced database concepts including database design, primary and secondary key selection and relationships between tables. Queries, sub forms, macros, events, Visual Basic modules and Access Internet features also covered. Prerequisites: A grade of C or better in CIS117DM or CIS117CM.

Division: Business and Computing Studies

CIS220DF / Adobe Photoshop Level II: Advanced Digital Imaging**3 Credits / 4.0 Periods for Lecture & Lab**

Goes beyond the basic use of palettes, selections, layers, menus, and tool options, and focuses on using Photoshop software's advanced features to manipulate and correct digital and digitally produced images. Prerequisites: A grade of C or better in CIS120DF or permission of Instructor.

Division: Business and Computing Studies

CIS224 / Project Management Microsoft Project for Windows**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to project management concepts while working with MS Project to solve complex project management networks, including creating Gantt and PERT charts, tracking project progress, planning for restrictions, and integrating MS Project with other software packages such as Excel, Word, Powerpoint, and cc Mail. Prerequisites: None.

Division: Business and Computing Studies

CIS225 / Business Systems Analysis and Design**3 Credits / 4.0 Periods for Lecture & Lab**

Investigation, analysis, design, implementation and evaluation of business computer systems. Prerequisites: Any programming language or permission of Instructor.

Division: Business and Computing Studies

CIS225AB / Object-Oriented Analysis and Design**3 Credits / 4.0 Periods for Lecture & Lab**

Methodologies and notations for fundamental object-oriented analysis and design including use cases, objects, classes, stereotypes, and relationships. Object-oriented iterative process for system development. A continuous application development exercise for applying the analysis and design concepts. Prerequisites: Any programming language or permission of Instructor.

Division: Business and Computing Studies

CIS227 / Assembly Language**3 Credits / 4.0 Periods for Lecture & Lab**

Concepts and use of the Assembly programming language, including basic arithmetic operations, flow control, and memory management. Prerequisites: A grade of C or better in CIS162++ or permission of Instructor.

Division: Business and Computing Studies

CIS233DA / Internet/Web Development Level II**3 Credits / 4.0 Periods for Lecture & Lab**

Plan, design and create web sites using HTML and Advanced Cascading Style Sheets (CSS). Expedite the development process using CSS frameworks and libraries. Enhance user experience and web site functionality using supporting technologies. Exploration of User Interface (UI) and User Experience (UX), best practices, accessibility, strategies, and careers in web design and development. Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.

Division: Business and Computing Studies

CIS235 / E-Commerce**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to Electronic Commerce on the Internet. Designing an electronic storefront including web page content and development, e-commerce site marketing, advertisement, legal and security considerations, credit card and other debit transaction covered. Also includes current issues in e-commerce. Prerequisites: A grade of C or better in CIS133DA or permission of Instructor.

Division: Business and Computing Studies

CIS238DL / Linux System Administration**3 Credits / 4.0 Periods for Lecture & Lab**

Managing Linux Operating Systems including sophisticated manipulation of file structures, backup systems, printing processes, troubleshooting, user account management, hard disk maintenance and configuration, process monitoring and prioritizing, kernel customization, and system resource control. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1). Prerequisites: A grade of C or better in CIS126DL or CIS126RH or permission of Instructor.

Division: Business and Computing Studies

CIS238RH / Red Hat System Administration II**3 Credits / 4.0 Periods for Lecture & Lab**

Continue to develop core administration skills needed to manage a Red Hat Enterprise Linux system. This Red Hat Academy course helps to prepare students for the Red Hat certification exams using a hands-on, task-focused curriculum. Prerequisites: A grade of C or better in CIS126RH, or permission of Instructor.

Division: Business and Computing Studies

CIS239DL / Linux Shell Scripting**3 Credits / 4.0 Periods for Lecture & Lab**

Linux Shell Scripting syntax and methods including the automation of system tasks as well as interpreted user-level programming. Course includes the Linux Borne Again Shell (BASH) as well as a variety of industry competitors. Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor.

Division: Business and Computing Studies

CIS240 / Local Area Network Planning and Design**3 Credits / 3.0 Periods for Lecture**

Analysis of the needs and requirements for a local area network (LAN). Emphasis on basic systems analysis and design for a local area network, selection of appropriate hardware and software components. Includes current and future issues, needs analysis, cost estimation, selection of connectivity and network components, and issues relating to access, security, and support. Prerequisites: A grade of C or better in CIS190 or MST140, or permission of Instructor.

Division: Business and Computing Studies

CIS240DL / Linux Network Administration**3 Credits / 4.0 Periods for Lecture & Lab**

In depth networking based on Linux servers and the Transmission Control Protocol/Internet Protocol (TCP/IP) protocol suite. Integrating Linux servers and workstations into a network environment with multi-platform network operating systems including a variety of open-standard and proprietary protocols. Preparation for industry certifications such as the CompTIA Linux+, the Red Hat Certified System Administrator (RHCSA), the Red Hat Certified Engineer (RHCE) and the Linux Professional Institute (LPIC-1). Prerequisites: A grade of C or better in CIS238DL or permission of Instructor.

Division: Business and Computing Studies

CIS240RH / Red Hat System Administration III**3 Credits / 4.0 Periods for Lecture & Lab**

Provides solid understanding of how to automate services on a Linux system. Covers use of Ansible to automate provisioning, configuration, application deployment, and orchestration on Red Hat Enterprise Linux 8. Content aligns with the Red Hat Certified Engineer (RHCE - EX294) exam, a professional certification. Prerequisites: A grade of C or better in CIS238RH or permission of Instructor.

Division: Business and Computing Studies

CIS250 / Management of Information Systems**3 Credits / 4.0 Periods for Lecture & Lab**

The study of business information systems and its management, communication, e-business strategies, emerging technologies, database concepts, and project management. Overview of systems analysis and design. Learn about the competitive and strategic uses of information systems and how they are transforming organizations and their management. Prerequisites: A grade of C or better in CIS105.

Division: Business and Computing Studies

CIS251 / Computer Game Development - Level II**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced object-oriented game development, advanced game design, and advanced game theory. Use of game development software tools to demonstrate advanced concepts for modeling real-time simulations and creating computer games using object oriented development tools. In depth coverage of game programming (scripting) techniques, and decision logic using object oriented techniques. Prerequisites: A grade of C or better in CIS151, or permission of Instructor.

Division: Business and Computing Studies

CIS252 / Introduction to Kubernetes Administration**4 Credits / 5.0 Periods for Lecture & Lab**

Provides students skills and knowledge to perform the responsibilities of a Kubernetes administrator. Includes covering the cluster architecture, installation, configuration, workloads, scheduling, services, networking, storage and troubleshooting. Helps students prepare for the Certified Kubernetes Administrator (CKA) certification. Prerequisites: A grade of C or better in CIS238DL or CIS238RH or permission of Instructor.

Division: Business and Computing Studies

CIS256 / Python Programming Level II**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced Python object-oriented programming concepts and applications. Emphasis on code documenting, versioning, unit testing strategies, and security practices for Python project/package development. Includes Python applications for data analysis, networking, database manipulation, and web application development. Prerequisites: A grade of C or better in CIS156 or permission of Instructor.

Division: Business and Computing Studies

CIS259 / Visual Basic Programming II**3 Credits / 4.0 Periods for Lecture**

Use of the Visual Basic programming language to identify and solve advanced problems using suitable examples from business or other disciplines. Prerequisites: A grade of C or better in CIS159, or permission of Instructor.

Division: Business and Computing Studies

CIS262AB / C++: Level II**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced level C++ programming with emphasis on arrays, data management, dynamic memory allocation, object-oriented programming concepts, input/output operations, libraries, and debugging techniques. Includes overview of other advanced applications of C++. Prerequisites: A grade of C or better in CIS162AB, or permission of Instructor.

Division: Business and Computing Studies

CIS262AD / C# Level II**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced C# programming with emphasis on data structures, dynamic memory allocation, object-oriented programming, user interfaces, and database processing. Overview of web applications, network programming, and reporting tools. Prerequisites: A grade of C or better in CIS162AD, or permission of Instructor.

Division: Business and Computing Studies

CIS263AA / Java Programming: Level II**3 Credits / 4.0 Periods for Lecture & Lab**

Intermediate Java programming. Includes features needed to construct object-oriented programming, multithreading, multimedia, files, streams and data structure. Prerequisites: A grade of C or better in CIS163AA or permission of Instructor.

Division: Business and Computing Studies

CIS265 / Advanced iOS Application Development**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced iOS device programming utilizing the Swift/XCode application, and the programming languages Objective-C and/or Swift, utilizing various iOS frameworks. Understand iOS hardware and feature basics. Go through entire design process from concept to final product delivery. Prerequisites: A grade of C or better in CIS150++ and CIS165, or permission of Instructor.

Division: Business and Computing Studies

CIS265DA / Advanced Android Application Development**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced Android device programming utilizing an Android Integrated Development Environment, and an Android-focused programming language such as Java or Kotlin, utilizing various advanced activity layouts, views, and intents. Covers advanced Object Oriented Programming (OOP) practices, local and cloud-based database backends, threading, incorporating device features and sensors, and unit testing. Prerequisites: A grade of C or better in CIS165DA or permission of Instructor.

Division: Business and Computing Studies

CIS266 / Network Integration Capstone**4 Credits / 5.0 Periods for Lecture & Lab**

Application of project management, installation and troubleshooting to integrate multiple operating systems. Topics include: diagnostic and troubleshooting procedures, security vulnerability and penetration software to installation. Prerequisites: A grade of C or better in [(CIS238DL or CIS238RH) and (CIS240DL or CIS240RH)], or CNT160AB, or [(MST155DC and MST157DC) and (CIS270 or CIS271DL or CIS271RH or CNT205)], or associated industry certifications, or permission of Instructor.

Division: Business and Computing Studies

CIS270 / Essentials of Network and Information Security**3 Credits / 4.0 Periods for Lecture & Lab**

Threats to security of information systems; responsibilities and basic tools for information security, including communication security, infrastructure security, organizational security and basic cryptography. Introduction to the language of network security and hardware, software and firmware components of an information security system for local, metropolitan, enterprise, and wide area networks. Helps prepare participants for the CompTia Security+ exam and the GIAC Security Essentials Certificate (GSEC). Prerequisites: A grade of C or better in BPC270 or CIS190 or CNT140AB or MST150++ or permission of Instructor.

Division: Business and Computing Studies

CIS271DB / Information Security Essentials**3 Credits / 4.0 Periods for Lecture & Lab**

Overview of information security principles, access control, risk management, and compliance. Provides partial preparation for certification in one or all of the following: CompTia Security + exam, International Information Systems Security Certification Consortium (ISC)2, Systems Security Certified Practitioner (SSCP) exam, the Committee on National Security Systems (CNSS) 4011 certification, or GIAC Security Essentials Certificate (GSEC). Prerequisites: A grade of C or better in (BPC270 or CIS126DL or CIS126RH or MST150++) and (CIS190 or CNT140++) and (CIS111 or ITS120).

Division: Business and Computing Studies

CIS271DL / Linux Security**3 Credits / 4.0 Periods for Lecture & Lab**

Implementing in-depth security methods and techniques in a Linux-based network environment. Utilize programs, utilities and configuration techniques to provide user-level, file system, and network security. Gain knowledge in a variety of security cracking techniques and how to guard against them. In all aspects of security, the standard of practicing professional ethics seriously emphasized. Preparation for industry certifications such as the SAIR/GNU LCP and LCA certificates, CompTIA's Linux+, RHCT, RHCE, and LPIC. Prerequisites: A grade of C or better in CIS240DL or permission of Instructor.

Division: Business and Computing Studies

CIS271RH / Red Hat System Administration IV**3 Credits / 4.0 Periods for Lecture & Lab**

Provides solid understanding on containers, containerized applications, and orchestration of containers using Kubernetes and Red Hat OpenShift on Red Hat Enterprise Linux. Prerequisites: A grade of C or better in CIS238RH or permission of Instructor.

Division: Business and Computing Studies

CIS272DB / Information Security Principles**3 Credits / 4.0 Periods for Lecture & Lab**

Covers threats to the IT infrastructure and how they can impact operations. Demonstrates strategies to mitigate risk impacts as they relate to the IT infrastructure. Provides technical knowledge required to execute on the essentials of information security. Provides partial preparation for certification in one or all of the following: CompTIA Security + exam, International Information Systems Security Certification Consortium ((ISC)2), Systems Security Certified Practitioner (SSCP) exam, the Committee on National Security Systems (CNSS) 4011 certification, or GIAC Security Essentials Certificate (GSEC). Prerequisites: A grade of C or better in CIS271DB.

Division: Business and Computing Studies

CIS275DL / Linux Capstone**3 Credits / 4.0 Periods for Lecture & Lab**

The Linux Capstone course aggregates the skills, knowledge, communication, and critical thinking skills from the Linux Program. This course is to emulate a production environment that prepares students to work as a Linux Systems Administrator. The course helps to prepare students for Linux Industry certification exams. Prerequisites: A grade of C or better in CIS240DL, or CIS240RH, or permission of Instructor.

Division: Business and Computing Studies

CIS276DA / MySQL Database**3 Credits / 4.0 Periods for Lecture & Lab**

A broad overview of the MySQL database. Includes Structured Query Language (SQL) instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install MySQL, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor.

Division: Business and Computing Studies

CIS276DB / SQL Server Database**3 Credits / 4.0 Periods for Lecture & Lab**

A broad overview of the Microsoft Structured Query Language (SQL) Server database. Includes SQL instruction for data definition, data manipulation, and data retrieval. Develops knowledge and skills required to install SQL Server, model and create new databases, manage users, authentication, and stored procedures, and develop backup/restore strategies. Prerequisites: A grade of C or better in CIS105, or CIS117DM, or permission of Instructor.

Division: Business and Computing Studies

CIS280 / Current Topics In Computing**3 Credits / 4.0 Periods for Lecture & Lab**

Critical inquiry of current topics in computing. Application of industry trends to solve problems and/or investigate issues. Prerequisites: None.

Division: Business and Computing Studies

CIS290AA / Computer Information Systems Internship**1 Credit / 6.0 Periods for Laboratory**

Work experience in business or industry. Prerequisites: Permission of Instructor.

Division: Business and Computing Studies

CIS290AB / Computer Information Systems Internship**2 Credits / 12.0 Periods for Laboratory**

Work experience in business or industry. Prerequisites: Permission of Instructor.

Division: Business and Computing Studies

CIS290AC / Computer Information Systems Internship**3 Credits / 18.0 Periods for Laboratory**

Work experience in business or industry. Prerequisites: Permission of Instructor.

Division: Business and Computing Studies

CIS296WB / Cooperative Education**2 Credits / 10.0 Periods for Laboratory**

Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

Division: Business and Computing Studies

CIS296WC / Cooperative Education**3 Credits / 15.0 Periods for Laboratory**

Work-college experiences that involve the combined efforts of educators and employers to accomplish an outcome related to the career objectives of the students. Prerequisites: Completion of at least twelve (12) college credits, minimum 2.6 grade point average and be able to obtain a position related to student's academic or career goals (student's present job may qualify) or permission of Instructor. Corequisites: Must be concurrent in at least one class which is related to student's major or career interest or with permission of the Instructor.

Division: Business and Computing Studies

CIS298AA / Special Projects**1 Credit / 1.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.

Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites:

Permission of Program Director or Instructor.

Division: Business and Computing Studies

CIS298AB / Special Projects**2 Credits / 2.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.

Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites:

Permission of Program Director or Instructor.

Division: Business and Computing Studies

CIS298AC / Special Projects**3 Credits / 3.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use.

Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites:

Permission of Program Director or Instructor.

Division: Business and Computing Studies

Computer Science (CSC)

CSC100AA / Introduction to Computer Science (C++)

3 Credits / 4.0 Periods for Lecture & Lab

Concepts of problem solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, or an appropriate District placement for MAT15+ or higher, or permission of Instructor or Department/Division Chair.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC100AB / Introduction to Computer Science (C++)

4 Credits / 4.0 Periods for Lecture & Lab

Concepts of problem-solving, structured programming in C++, fundamental algorithms and techniques, and computer system concepts. Social and ethical responsibilities. Intended for majors other than Computer Science. Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, or an appropriate District placement for MAT15+ or higher, or permission of Instructor or Department/Division Chair.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC110 / Introduction to Computer Science (Java)

3 Credits / 3.0 Periods for Lecture & Lab

Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors. Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, or an appropriate District placement for MAT15+ or higher, or permission of Instructor or Department/Division Chair.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC110AA / Introduction to Computer Science (Java)

3 Credits / 4.0 Periods for Lecture & Lab

Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors. Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, or an appropriate District placement for MAT15+ or higher, or permission of Instructor or Department/Division Chair.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC110AB / Introduction to Computer Science (Java)

4 Credits / 4.0 Periods for Lecture & Lab

Concepts of problem-solving, structured and object-oriented programming in Java, fundamental algorithms and techniques and computer system concepts. Social and ethical responsibilities. Intended for Computer Science and Computer Systems Engineering majors.

Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, or an appropriate District placement for MAT15+ or higher, or permission of Instructor or Department/Division Chair.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC120 / Digital Design Fundamentals

4 Credits / 6.0 Periods for Lecture & Lab

Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits. Prerequisites: None. Corequisites: CSC100 or CSC110 or permission of Instructor or Division or Department Chair.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC150 / Programming in C/C++

3 Credits / 4.0 Periods for Lecture & Lab

Introduction to C and C++ programming. Flow control, functions, pointers, data structures, file handling, and introduction to object-oriented programming. Prerequisites: Permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC150AA / Programming In C/C++

4 Credits / 4.0 Periods for Lecture

Introduction to C and C++ programming. Flow control, functions, pointers, data structures, file handling, and introduction to object-oriented programming. Prerequisites: Permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC180 / Computer Literacy

3 Credits / 3.0 Periods for Lecture

Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e-mail and text files, and use of Internet browsers. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC180AA / Computer Literacy**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e-mail and text files, and use of Internet browsers. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC180AB / Computer Literacy**4 Credits / 4.0 Periods for Lecture**

Introduction to computers and technology and their impact on society. Explores technology, current topics in computing, applications and related issues. Students gain fluency in integrating technology to solve problems using computational thinking. Use of application software to create documents, spreadsheets, databases, e-mail and text files, and use of Internet browsers. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC181 / Applied Problem Solving With Visual Basic**3 Credits / 3.0 Periods for Lecture**

Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC181AA / Applied Problem Solving With Visual Basic**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC181AB / Applied Problem Solving With Visual Basic**4 Credits / 4.0 Periods for Lecture**

Introduction to systematic definition of problems, solution formulation, and testing. Visual BASIC programming language applied to problems in mathematics, science, and business. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC182 / Principles Of Programming With C#.NET**3 Credits / 3.0 Periods for Lecture**

Introduction to object-oriented program analysis, design, and development using Visual C#.NET. Includes general concepts, data types, expressions, flow control, methods, classes, arrays, event-driven models, Windows applications, and Web applications. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC182AA / Principles Of Programming With C#.NET**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to object-oriented program analysis, design, and development using Visual C#.NET. Includes general concepts, data types, expressions, flow control, methods, classes, arrays, event-driven models, Windows applications, and Web applications. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC200 / Principles of Computer Science (Java)**3 Credits / 3.0 Periods for Lecture & Lab**

Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java. Prerequisites: A grade of C or better in CSC110 or (CSC100 or equivalent) and permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC200AA / Principles of Computer Science (Java)**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java. Prerequisites: A grade of C or better in CSC110 or (CSC100 or equivalent) and permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC200AB / Principles of Computer Science (Java)**4 Credits / 4.0 Periods for Lecture & Lab**

Introduction to computer science. Issues and concepts throughout the field, including software development, data organization, machine architecture, algorithmic machines, and ethics in computing. Programming in Java. Prerequisites: A grade of C or better in CSC110 or (CSC100 or equivalent) and permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC205 / Object Oriented Programming and Data Structures**3 Credits / 3.0 Periods for Lecture & Lab**

Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. Prerequisites: A grade of C or better in CSC110 or permission of Instructor.



SUN# CSC 2205

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC205AA / Object Oriented Programming and Data Structures**3 Credits / 4.0 Periods for Lecture & Lab**

Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. Prerequisites: A grade of C or better in CSC110 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC205AB / Object Oriented Programming and Data Structures**4 Credits / 4.0 Periods for Lecture & Lab**

Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. Prerequisites: A grade of C or better in CSC110 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC205AC / Object Oriented Programming and Data Structures**4 Credits / 5.0 Periods for Lecture & Lab**

Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. Prerequisites: A grade of C or better in CSC110 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC205AD / Object Oriented Programming and Data Structures**4 Credits / 6.0 Periods for Lecture & Lab**

Covers Object-Oriented design and programming; elementary data structures; arrays; lists; stacks; queues; binary trees; recursion; searching and sorting algorithms. Prerequisites: A grade of C or better in CSC110 or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

CSC210 / Data Structures And Algorithms (Java)**3 Credits / 3.0 Periods for Lecture & Lab**

Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language. Prerequisites: A grade of C or better in CSC200.

Division: Business and Computing Studies

CSC210AA / Data Structures and Algorithms (Java)**3 Credits / 4.0 Periods for Lecture & Lab**

Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language. Prerequisites: A grade of C or better in CSC200.

Division: Business and Computing Studies

CSC210AB / Data Structures and Algorithms (Java)**4 Credits / 4.0 Periods for Lecture & Lab**

Static and dynamic data structures and associated applications; recursive and iterative sorting and searching algorithms; introduction to object oriented design and programming techniques; software engineering methods including design models and implementation/testing strategies; professional responsibilities; Java language. Prerequisites: A grade of C or better in CSC200.

Division: Business and Computing Studies

CSC220 / Programming for Computer Engineering**3 Credits / 5.0 Periods for Lecture & Lab**

Introduction to procedural programming (C/C++) and hardware description language (VHDL). Prerequisites: A grade of C or better in (CSC/EEE120 and CSC205), or permission of Instructor or Division or Department Chair.

Division: Business and Computing Studies

CSC230 / Computer Organization and Assembly Language**4 Credits / 5.0 Periods for Lecture & Lab**

Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory. Prerequisites: A grade of C or better in [(CSC100 or CSC110) and CSC/EEEE120], or permission of Instructor or Division or Department Chair.

Division: Business and Computing Studies

CSC240 / Introduction to Different Programming Languages**3 Credits / 5.0 Periods for Lecture & Lab**

Introduction to procedural (C/C++), applicative (LISP), and declarative (Prolog) languages.

Division: Business and Computing Studies

CSC283 / Bioinformatics and Scientific Computing**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to bioinformatics, including history, concepts, major genetic databases and access tools. Computer software and techniques for analyzing one nucleotide or protein sequence, searching for similar sequences, and aligning and comparing two or multiple sequences. Microarray analysis and phylogenetic trees. Application of standard software to bioinformatic computing tasks, including word processing of reports, and use of spreadsheets for statistical analysis and graphing. Text editors, Unix, Internet web site searching and construction, and ethics. Prerequisites: A grade of C or better in [(BIO156 or BIO181) and (MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ or higher)], or permission of Instructor or Department/Division Chair. Concurrent enrollment in, or previous completion of, BIO208 or BIO212AA is strongly suggested but not required.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

Creative Writing (CRW)

CRW120 / Introduction to Writing Children's Literature**3 Credits / 3.0 Periods for Lecture**

Overview of writing children's literature. Emphasis on genres and standards for quality. Development of techniques in reading, evaluating, writing, revising, and editing literature written for children. Prerequisites: None. ENH291 suggested but not required.

Division: Composition, Creative Writing, and Literature

CRW150 / Introduction to Creative Writing**3 Credits / 3.0 Periods for Lecture**

Introduction to the basic aesthetics and techniques in contemporary creative writing within a variety of genres. Introduction to the analytical concepts and terminology necessary to understand, interpret, and enact contemporary creative writing. Facilitation of writing practices and evaluation. Introduction to literature's role in society. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

CRW160 / Introduction to Writing Poetry**3 Credits / 3.0 Periods for Lecture**

Prewriting (invention and discovery); writing; analyzing and evaluating (in workshop); and revising to practice manipulating various elements of poetry, critique one's own and the poetry of others, and produce a portfolio of finished, marketable poems. Prerequisites: None. CRW150 recommended but not required.

Division: Composition, Creative Writing, and Literature

CRW170 / Introduction to Writing Fiction**3 Credits / 3.0 Periods for Lecture**

Practice in writing fiction through a process of prewriting (invention and discovery), writing, analysis and evaluation (in workshop), and revision; practice in manipulating various elements and forms of fiction. Prerequisites: None. CRW150 recommended but not required.

Division: Composition, Creative Writing, and Literature

CRW172 / Introduction to Comic Book Writing**3 Credits / 3.0 Periods for Lecture**

Introduction to elements and techniques of comic book writing in its specific form; teaches terminology and concepts needed for the successful participation in writing workshops; focuses on proposal outline, planning, structure facilitates writing practice (including character study) and evaluation; offers individual suggestions in the student's development in this genre. Prerequisites:None.

Division: Composition, Creative Writing, and Literature

CRW176 / Writing Narrative for Video Games**3 Credits / 3.0 Periods for Lecture**

Provides an introduction to narrative theory as it relates to video game production. Delivers a variety of video game storylines, narrative theories, and processes for narrative development in video games. Terminology and video game industry standards are covered. Offers discussion of team building and the role of video games in society. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

CRW180 / Introduction to Writing Nonfiction**3 Credits / 3.0 Periods for Lecture**

Practice in writing creative nonfiction, including autobiography and biography, the essay, reviews, and humor using a process of invention and discovery, writing, analysis, evaluation, and revision. Combines lecture, discussion, and workshop, leading to the production of marketable quality creative nonfiction. Prerequisites: None. CRW150 recommended but not required.

Division: Composition, Creative Writing, and Literature

CRW190 / Introduction to Screenwriting**3 Credits / 3.0 Periods for Lecture**

Overview of screenwriting elements; introduction to screenwriting techniques. Prerequisites: None. CRW150 recommended but not required.

Division: Composition, Creative Writing, and Literature

CRW200 / Readings for Writers**1 Credit / 1.0 Periods for Laboratory**

Close analysis and interpretation of selected literary texts designed to strengthen the students' own writing by extending their familiarity with the genre in which they write and their knowledge of selected literary elements. One-on-one meetings between student and instructor. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW201 / Portfolio**1 Credit / 1.0 Periods for Laboratory**

Close analysis of the creative writing portfolio culminating in selection, revision, editing, and compiling of the student's own literary work in a portfolio. Students meet individually with instructor to choose, prepare, and compile their work. Prerequisites: Acceptance to Creative Writing(CRW) program, completion of nine (9) credit hours of CRW course work, or permission of Program Coordinator. Course Notes: CRW201 may be repeated for a total of two (2) credit hours.

Division: Composition, Creative Writing, and Literature

CRW202 / The Writer as Witness**3 Credits / 3.0 Periods for Lecture**

Studio course focusing on writing with the writer as witness of the world: pre-writing, writing, analysis, evaluation, and writing of monologue and dialogue in various formats. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW203 / Dialogue**3 Credits / 3.0 Periods for Lecture**

Studio course focusing on writing dialogue in a variety of genres; prewriting, writing, analysis, evaluation, and writing of monologue and dialogue in various formats. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW204 / Journaling**3 Credits / 3.0 Periods for Lecture**

Studio course focusing on journal writing. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW220 / Intermediate Writing Children's Literature**3 Credits / 3.0 Periods for Lecture**

Application of techniques in writing literature for children. Emphasis on independent writing, self-evaluation, and revision. Includes completion of a major writing project of marketable quality. Prerequisites: A grade of C or better in CRW120 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW251 / Topics in Creative Writing**3 Credits / 3.0 Periods for Lecture**

Analysis, writing, and revision focused on a selected element applicable to all genres of creative writing. Prerequisites: None. CRW150 recommended. Course Notes: CRW251 may be repeated, topic must be different, for a total of nine (9) credit hours.

Division: Composition, Creative Writing, and Literature

CRW260 / Intermediate Poetry Writing**3 Credits / 3.0 Periods for Lecture**

Emphasis on writing a series of original poems; analysis and evaluation of the functions and effects of established works of poetry; concentration on evaluation and revising students' poetry through intensive workshops. Prerequisites: A grade of C or better in CRW160 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW261 / Topics in Writing: Poetry**3 Credits / 3.0 Periods for Lecture**

Analysis, writing, and revision of genre or element within poetry. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW270 / Intermediate Fiction Writing**3 Credits / 3.0 Periods for Lecture**

Writing original short stories; analysis of works of fiction; concentration on revising students' fiction through intensive workshops. Prerequisites: A grade of C or better in CRW170.

Division: Composition, Creative Writing, and Literature

CRW271 / Topics in Writing: Fiction**3 Credits / 3.0 Periods for Lecture**

Analysis, writing, and revision of genre or element within fiction. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW272 / Planning and Structuring the Novel**3 Credits / 3.0 Periods for Lecture**

Focus on planning, structuring, and beginning a novel; prewriting, writing, analysis, evaluation, and revision of novel plans and excerpts. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW273 / Writing the Novel**3 Credits / 3.0 Periods for Lecture**

Provides the beginning novelist with structure, support, and guidance vital to sustained writing; focus on establishing goals and using critique sessions with instructor and peers to draft a novel; open- and topic-focused in-class forums, novel writing, peer and instructor critiques. Prerequisites: A grade of C or better in CRW272 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW274 / Revising the Novel**3 Credits / 3.0 Periods for Lecture**

Studio course workshop format. Requires a complete novel finished, in manuscript, ready for revision and polishing. Prerequisites: A grade of C or better in CRW273 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW281 / Topics in Writing: Non-Fiction**3 Credits / 3.0 Periods for Lecture**

Analysis, writing, and revision of genre or element within non-fiction. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW290 / Intermediate Screenwriting**3 Credits / 3.0 Periods for Lecture**

Drafting and revision of original screenplay; overview of marketing a screenplay. Prerequisites: A grade of C or better in CRW190 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

CRW291 / Topics in Writing: Plays**3 Credits / 3.0 Periods for Lecture**

Analysis, writing, and revision of genre or element within plays and/or motion picture screenplays. Prerequisites: A grade of C or better in CRW150 or permission of Instructor.

Division: Composition, Creative Writing, and Literature

Critical Reading (CRE)

CRE101 / College Critical Reading and Critical Thinking

3 Credits / 3.0 Periods for Lecture

Develop and apply critical thinking skills through critically reading varied and challenging materials. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

CRE101HS / College Critical Reading and Critical Thinking in Health Sciences

3 Credits / 3.0 Periods for Lecture

Develop and apply critical thinking skills through critically reading varied and challenging materials relevant to current issues in health sciences. Includes analysis, evaluation, interpretation, and synthesis through at least two substantial writing and/or speaking tasks. Prerequisites: A grade of C or better in [(ENG101 or ENG107) and (RDG095 or RDG100 or RDG100LL or RDG111 or RDG112 or RDG113)] or a grade of B or better in ALT100 or an appropriate district placement or permission of Instructor.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

CRE201 / Critical Reading and Writing in a Global Society

3 Credits / 3.0 Periods for Lecture

Critical evaluation of writings of authors from a variety of countries and cultures in order to gain a more global perspective of both universal and contemporary issues. Analysis, synthesis, and evaluation of various contemporary cultural viewpoints through at least two substantial writing and/or speaking tasks. Prerequisites: A grade of C or better in (ENG101 or ENG107) and (CRE101 or exemption by district placement)

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

Dance (DAN)

DAN101AC / Social Dance: Latin

1 Credit / 2.0 Periods for Lecture & Lab

Theory and practice of Latin dance. Development of movement quality and performance skills individually, with a partner or in a group setting. Prerequisites: None.

Division: Communication & Fine Arts

DAN102AA / Hip Hop I

1 Credit / 3.0 Periods for Lecture & Lab

Theory and practice of Hip Hop dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Notes: DAN102AA may be repeated for credit.

Division: Communication & Fine Arts

DAN102AB / Hip Hop II

1 Credit / 3.0 Periods for Lecture & Lab

Theory and practice of Hip Hop dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN102AA or permission of Instructor. Course Notes: DAN102AB may be repeated for credit.

Division: Communication & Fine Arts

DAN106AA / Latin I

1 Credit / 3.0 Periods for Lecture & Lab

Theory and practice of Latin dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None.

Division: Communication & Fine Arts

DAN106AB / Latin II

1 Credit / 3.0 Periods for Lecture & Lab

Theory and practice of Latin dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN106AA or permission of Instructor.

Division: Communication & Fine Arts

DAN120AG / World Dance: East Indian Dance

1 Credit / 3.0 Periods for Lecture & Lab

Theory and practice of East Indian dance. Development of movement quality and performance skills. Prerequisites: None. Course Notes: DAN120AG may be repeated for credit.

Division: Communication & Fine Arts

DAN129 / Musical Theatre Dance I

1 Credit / 3.0 Periods for Lecture & Lab

Introduction to the theory and practice of musical theatre dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Notes: DAN129 may be repeated for credit.

Division: Communication & Fine Arts

DAN130 / Musical Theatre Dance II

1 Credit / 3.0 Periods for Lecture & Lab

Theory and practice of musical theatre dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN129 or permission of Instructor. Course Notes: DAN130 may be repeated for credit.

Division: Communication & Fine Arts

DAN131 / Ballet I

1 Credit / 3.0 Periods for Lecture & Lab

Introduction to the theory and practice of ballet at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Notes: DAN131 may be repeated for credit.

Division: Communication & Fine Arts

DAN131PA / Ballet Basic Level

0.5 Credits / 1.5 Periods for Lecture & Lab

Dance training for personal skill development and interest. Introduction to the theory and practice of ballet at the basic level. Prerequisites: None. Prior dance experience suggested but not required. Course Notes: DAN131PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN132 / Modern Dance I

1 Credit / 3.0 Periods for Lecture & Lab

Introduction to the theory and practice of modern dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Notes: DAN132 may be repeated for credit.

Division: Communication & Fine Arts

DAN132PA / Modern Dance Basic Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Introduction to the theory and practice of modern dance at the basic level. Prerequisites: None. Prior dance experience suggested but not required. Course Notes: DAN132PA may be repeated credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN133 / Jazz Dance I**1 Credit / 3.0 Periods for Lecture & Lab**

Introduction to the theory and practice of jazz dance at the beginning level. Development of movement quality and performance skills. Prerequisites: None. Course Notes: DAN133 may be repeated for credit.

Division: Communication & Fine Arts

DAN133PA / Jazz Basic Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the basic level. Prerequisites: None. Prior dance experience suggested but not required. Course Notes: DAN133PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN134 / Ballet II**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN131 or permission of Instructor. Course Notes: DAN134 may be repeated for credit.

Division: Communication & Fine Arts

DAN134PA / Ballet Beginning Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Theory and practice of ballet at the beginning level. Prerequisites: A grade of C or better in DAN131PA or permission of Department or Division. Course Notes: DAN134PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN135 / Modern Dance II**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of modern dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN132 or permission of Instructor. Course Notes: DAN135 may be repeated for credit.

Division: Communication & Fine Arts

DAN135PA / Modern Dance Beginning Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Theory and practice of modern dance at the beginning level. Course Notes: DAN135PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN136 / Jazz Dance II**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of jazz dance at the advanced beginning level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN133 or permission of Instructor. Course Notes: DAN136 may be repeated for credit.

Division: Communication & Fine Arts

DAN136PA / Jazz Beginning Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the beginning level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN133PA or permission of Department or Division. Course Notes: DAN136PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN138 / Dance Seminar I**1 Credit / 1.0 Periods for Lecture**

Level I scientific evaluation and in-depth discussion of the theory and practice of work done in dance technique class. Prerequisites: None. Corequisites: Any ballet, modern dance, or modern jazz dance technique course.

Division: Communication & Fine Arts

DAN140 / Tap Dance I**1 Credit / 3.0 Periods for Lecture & Lab**

An introduction to the theory and practice of tap dance. Prerequisites: None. Course Notes: DAN140 may be repeated for credit.

Division: Communication & Fine Arts

DAN141 / Dance Workshop**1 Credit / 3.0 Periods for Lecture & Lab**

An intensive experience in the process of choreography, performance, and production elements. Prerequisites: None. Course Notes: DAN141 may be repeated for credit.

Division: Communication & Fine Arts

DAN145 / Tap Dance II**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of tap dance at an advanced beginning level. Prerequisites: A grade of C or better in DAN140 or permission of Instructor. Course Notes: DAN145 may be repeated for credit.

Division: Communication & Fine Arts

DAN150 / Dance Performance I**1 Credit / 3.0 Periods for Lecture & Lab**

An introduction to the process and practice of dance performance. Prerequisites: None. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. Course Notes: DAN150 may be repeated for credit.

Division: Communication & Fine Arts

DAN155 / Dance Performance II**1 Credit / 3.0 Periods for Lecture & Lab**

Continued study of the process and practice of dance performance at advanced beginning level. Prerequisites: A grade of C or better in DAN150 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. Course Notes: DAN155 may be repeated for credit.

Division: Communication & Fine Arts

DAN202AA / Hip Hop III**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of Hip Hop dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN102AB or permission of Instructor. Course Notes: DAN202AA may be repeated for credit.

Division: Communication & Fine Arts

DAN202AB / Hip Hop IV**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of Hip Hop dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN202AA or permission of Instructor. Course Notes: DAN202AB may be repeated for credit.

Division: Communication & Fine Arts

DAN210 / Dance Production I**3 Credits / 3.0 Periods for Lecture & Lab**

Introduction to the elements of pre-production and production, including but not limited to production organization, production management, lighting design, and sound design as they relate to the art of dance. Prerequisites: None.

Division: Communication & Fine Arts

DAN211 / Dance Production II**3 Credits / 3.0 Periods for Lecture & Lab**

Introduction to the theory and practice of makeup and costuming as they relate to dance. Prerequisites: None.

Division: Communication & Fine Arts

DAN221 / Rhythmic Awareness I**3 Credits / 3.0 Periods for Lecture**

Exploration of rhythm in dance performance, choreography and pedagogy. Emphasis on the basic understanding of rhythm and cultivating awareness of rhythm in everyday life. Prerequisites: None.

Division: Communication & Fine Arts

DAN222 / Rhythmic Awareness II**3 Credits / 3.0 Periods for Lecture**

Study at the intermediate level of rhythm and how it can be applied in dance and choreography. Emphasis on awareness of rhythm in everyday life as well as creative practice in rhythm and movement. Prerequisites: A grade of C or better in DAN221 or permission of Instructor.

Division: Communication & Fine Arts

DAN229 / Musical Theatre Dance III**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of musical theatre dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN130 or permission of Instructor. Course Notes: DAN229 may be repeated for credit.

Division: Communication & Fine Arts

DAN230 / Musical Theatre Dance IV**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of musical theatre dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN229 or permission of Instructor. Course Notes: DAN230 may be repeated for credit.

Division: Communication & Fine Arts

DAN231 / Ballet III**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of ballet at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN134 or permission of Instructor. Course Notes: DAN231 may be repeated for credit.

Division: Communication & Fine Arts

DAN231PA / Ballet Intermediate Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Theory and practice of ballet at the intermediate level. Prerequisites: A grade of C or better in DAN134PA or permission of Department or Division. Course Notes: DAN231PA may be repeated for credit.

Division: Communication & Fine Arts

DAN232 / Modern Dance III**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN135 or permission of Instructor. Course Notes: DAN232 may be repeated for credit.

Division: Communication & Fine Arts

DAN232AA / Modern Dance III: Intensive**2 Credits / 5.0 Periods for Lecture & Lab**

Theory and intensive practice of modern dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN135 or permission of Instructor. Course Notes: DAN232AA may be repeated for credit.

Division: Communication & Fine Arts

DAN232PA / Modern Dance Intermediate Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Theory and practice of modern dance at the intermediate level. Prerequisites: A grade of C or better in DAN135PA or permission of Department or Division. Course Notes: DAN232PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN233 / Jazz Dance III**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of jazz dance at the beginning intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN136 or permission of Instructor. Course Notes: DAN233 may be repeated for credit.

Division: Communication & Fine Arts

DAN233PA / Jazz Intermediate Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal skill development and interest. Introduction to the theory and practice of jazz dance at the intermediate level. Prerequisites: A grade of C or better in DAN136PA or permission of Department or Division. Course Notes: DAN233PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN234 / Ballet IV**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of ballet at the intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN231 or permission of Instructor. Course Notes: DAN234 may be repeated for credit.

Division: Communication & Fine Arts

DAN235 / Modern Dance IV**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of modern dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN232 or permission of Instructor. Course Notes: DAN235 may be repeated for credit.

Division: Communication & Fine Arts

DAN235AA / Modern Dance IV: Intensive**2 Credits / 5.0 Periods for Lecture & Lab**

Theory and intensive practice of modern dance at the advanced intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN232AA or permission of Instructor. Course Notes: DAN235AA may be repeated for credit.

Division: Communication & Fine Arts

DAN235PA / Modern Dance Advanced Level**0.5 Credits / 1.5 Periods for Lecture & Lab**

Dance training for personal development and interest. Theory and practice of modern dance at the advanced level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN232PA or permission of Department or Division. Course Notes: DAN235PA may be repeated for credit. Course is not intended for dance majors.

Division: Communication & Fine Arts

DAN236 / Jazz Dance IV**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of jazz dance at the intermediate level. Development of movement quality and performance skills. Prerequisites: A grade of C or better in DAN233 or permission of Instructor. Course Notes: DAN236 may be repeated for credit.

Division: Communication & Fine Arts

DAN237 / Ballet Pointe I**1 Credit / 1.0 Periods for Lecture & Lab**

An introduction to the theory and practice of pointe work at the beginning level. Development of strength and movement quality. Prerequisites: A grade of C or better in DAN134 or permission of Instructor. Corequisites: DAN231 or DAN234. Course Notes: DAN237 may be repeated for credit.

Division: Communication & Fine Arts

DAN240 / Tap Dance III**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of tap dance at a beginning intermediate level. Prerequisites: A grade of C or better in DAN145 or permission of Instructor. Course Notes: DAN240 may be repeated for credit.

Division: Communication & Fine Arts

DAN245 / Tap Dance IV**1 Credit / 3.0 Periods for Lecture & Lab**

Theory and practice of tap dance at an intermediate level. Prerequisites: A grade of C or better in DAN240 or permission of Instructor. Course Notes: DAN245 may be repeated for credit.

Division: Communication & Fine Arts

DAN250 / Dance Performance III**1 Credit / 3.0 Periods for Lecture & Lab**

Continued study of the process and practice of dance performance at beginning intermediate level. Prerequisites: A grade of C or better in DAN155 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. Course Notes: DAN250 may be repeated for credit.

Division: Communication & Fine Arts

DAN255 / Dance Performance IV**1 Credit / 3.0 Periods for Lecture & Lab**

Continued study of the process and practice of dance performance at the intermediate level. Prerequisites: A grade of C or better in DAN250 or permission of Instructor. Corequisites: Any level of any of the following dance technique courses with a DAN prefix: ballet, modern, jazz, hip hop, tap, social, or world dance. Course Notes: DAN255 may be repeated for credit.

Division: Communication & Fine Arts

DAN264 / Choreography I**3 Credits / 3.0 Periods for Lecture & Lab**

Study of basic dance choreography to include construction of a phrase, structure and form in a composition, and the basic elements of time, space and energy. Prerequisites: None.

Division: Communication & Fine Arts

DAN265 / Choreography II**3 Credits / 3.0 Periods for Lecture & Lab**

Exploration of choreography at the intermediate level. Experimentation with the various approaches to creative practice as established by 20th and 21st century artists. Prerequisites: A grade of C or better in DAN264 or permission of Instructor.

Division: Communication & Fine Arts

DAN280 / Dance Practicum**2 Credits / 3.0 Periods for Lecture & Lab**

A culmination of coursework for the dance major requiring completion of an extended choreographic work from conception to performance. Also requires a final evaluative paper on the successes and challenges encountered throughout the project. Prerequisites: Permission of Instructor.

Division: Communication & Fine Arts

DAN294 / Teaching Dance In Secondary Education**3 Credits / 3.0 Periods for Lecture**

Introduction to the theories and methods of teaching dance and movement in the elementary school setting. Includes planning, facilitating, and assessing dance and movement experiences for grades K-6. Prerequisites: (A grade of C or better in BIO160, DAN231, DAN232, DAN233, and DAN264), or permission of Instructor.

Division: Communication & Fine Arts

DAN298AB / Special Projects**2 Credits / 2.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

Division: Communication & Fine Arts

Dance Humanities (DAH)

DAH100 / Introduction to Dance**3 Credits / 3.0 Periods for Lecture**

Overview of the field of dance focusing on origins, historical development, and cultural characteristics of the various styles of dance. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

DAH201 / World Dance Studies**3 Credits / 3.0 Periods for Lecture**

Exploration, analysis, synthesis, and evaluation of the role of dance in various cultures around the world. Prerequisites: None. DAH100 strongly suggested but not required.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

DAH250 / Dance in Popular Culture**3 Credits / 3.0 Periods for Lecture**

Interdisciplinary approach investigating diverse cultural dance practices that have shaped American popular culture from the late 19th century to the present. Highlights issues of power, class, race, ethnicity, gender, age and sexuality. Emphasis is on revealing diverse cultural influences in U.S. popular culture. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Communication & Fine Arts

DAH255 / Hip Hop: Arts, Aesthetic and Culture**3 Credits / 3.0 Periods for Lecture**

Selective survey and historico-cultural analysis of hip hop arts, aesthetics and culture organized around the founding elements of DJing, MCing, B-boy and B-girling, graffiti arts and knowledge. Prerequisites: A grade of C or better in ENG101 or ENG107.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

Early Childhood Education (ECH)

ECH128 / Early Learning: Play And The Arts**3 Credits / 3.0 Periods for Lecture**

Examines theory, research and practices relating to play and the creative arts in early childhood. Considers practical constraints and alternative perspectives. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH140 / Learning Made Visible Through Documentation**1 Credit / 1.0 Periods for Lecture**

The study of documentation in early childhood environments including strategies to reflect on children's thinking, hypothesis development, and the multiple relationships essential in the learning environments. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH176 / Child Development**3 Credits / 3.0 Periods for Lecture**

Study of the science of human development from conception through adolescence. Includes observation skills, parent and adult roles in the lives of children, and contemporary issues. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ECH238 / Computers in Early Childhood**1 Credit / 1.0 Periods for Lecture**

Comparison of computers as a teaching device with traditional early childhood learning materials. Hands-on experience with child/computer interaction and software evaluation. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH253 / National Credential Portfolio Development**3 Credits / 3.0 Periods for Lecture**

Portfolio or resource file development, completion, and presentation. Self-assessment and credentialing planning, professional development, writing, and critical learning included. Prerequisites: Permission of Program Director.

Division: Social & Behavioral Sciences

ECH269 / Child Care Seminar**1 Credit / 1.0 Periods for Lecture**

Emphasizes the blend of job-related activities including career exploration, employment procedures, human relations, and on-the-job issues. Prerequisites: Permission of Department or Division. Course Notes: CFS/ECH269 may be repeated for a total of three (3) credit hours.

Division: Social & Behavioral Sciences

ECH270 / Observing Young Children**1 Credit / 1.0 Periods for Lecture**

Introduction to techniques of observing young children. Recording methods, interpretation and use of collected information including legal and ethical implications. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH271 / Arranging the Environment**1 Credit / 1.0 Periods for Lecture**

Exploration of the influence of the environment on the behavior of young children. Indoor and outdoor spaces considered and analysis of environments practiced. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH272 / Science For The Young Child**1 Credit / 1.0 Periods for Lecture**

Methods and techniques for encouraging beginning scientific thinking among young children. Focus upon the theory of Jean Piaget. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH273 / Math for the Young Child**1 Credit / 1.0 Periods for Lecture**

Methods and techniques for encouraging the beginnings of mathematical/logical thought with young children. Focus upon the theory of Jean Piaget. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH275 / Literacy Development and the Young Child**1 Credit / 1.0 Periods for Lecture**

Literacy from birth through the early childhood years. Focus on developmentally appropriate ways to encourage speaking, listening, writing, and reading in the home and classroom. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH279 / Early Childhood Curriculum Development**1 Credit / 1.0 Periods for Lecture**

An intensive focus on the process of building curriculum units appropriate to the developmental needs and abilities of the young child. Design, use and evaluation of materials and activities. Prerequisites: None. Course Notes: ECH279 may be repeated for a total of four (4) credit hours.

Division: Social & Behavioral Sciences

ECH280 / Food Experiences With Young Children**1 Credit / 1.0 Periods for Lecture**

A discussion of the nutritional needs of young children and the cultural and social meanings of foods, feeding and eating. Includes planning and managing food experiences in home and group settings. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH281 / Movement/Music for the Young Child**1 Credit / 1.0 Periods for Lecture**

Consideration of motor development in the toddler through the 8-year-old and exploration of age-appropriate rhythmic, musical and creative movement methods. Prerequisites: None.

Division: Social & Behavioral Sciences

ECH282 / Discipline/Guidance Of Child Groups**1 Credit / 1.0 Periods for Lecture**

Exploration of techniques for guiding children in groups with focus on individual child and adult needs for a disciplined environment.

Prerequisites: None.

Division: Social & Behavioral Sciences

ECH284AA / Early Childhood Teaching Internship**1 Credit / 1.0 Periods for Lecture & Lab**

Work experience in child care centers. 80 hours of designated work per credit. Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. Course Notes: CFS/ECH284AA may be repeated for a total of six (6) credit hours.

Division: Social & Behavioral Sciences

ECH284AB / Early Childhood Teaching Internship**3 Credits / 3.0 Periods for Lecture & Lab**

Work experience in child care centers. 80 hours of designated work per credit. Maximum of 6 credits allowed. Prerequisites: A grade of C or better in CFS/ECH176 and permission of Department or Division. Corequisites: CFS/ECH269.

Division: Social & Behavioral Sciences

ECH287 / Professional Development in Early Childhood Education**1 Credit / 1.0 Periods for Lecture**

Emerging professionalism within the field of early childhood education. Consideration of job responsibilities, rewards, ethics and current issues facing practitioners. Includes assessment and career planning. Prerequisites: None.

Division: Social & Behavioral Sciences

Early Education (EED)

EED115 / Digital Literacy for Teaching and Learning in Education**3 Credits / 3.0 Periods for Lecture**

Overview of digital literacy for identifying the skills needed to become informed users of technology to communicate, instruct, create and think critically with digital tools. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices, information literacy and family and professional partnerships. Discusses current trends and related issues about the use of technology and its impacts in P20 education. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Social & Behavioral Sciences

EED200 / Foundations of Early Childhood Education**3 Credits / 3.0 Periods for Lecture**

Overview of early childhood education (birth to age eight) in American society, including current issues and responsibilities. Emphasis on issues of professionalism, ethics and program types. Opportunities for students to explore potential career paths. Includes field experience. Prerequisites: None. Course Notes: EED200 requires a minimum of 30 hours of field experience in birth to age eight environments.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

EED205 / The Developing Child: Prenatal to Age Eight**3 Credits / 3.0 Periods for Lecture**

Examination of process of physical, social, emotional, cognitive, language, and literacy development of typical and atypical young children; prenatal through age eight. Includes practical application and fieldwork experience. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

EED210 / Creative and Cognitive Play**3 Credits / 3.0 Periods for Lecture**

Benefits of play for children birth to 8 years of age. Inclusion of art, music, and movement used in all dimensions of play. Identify uses and roles in the development of children. Prerequisites: A grade of C or better in CFS/ECH176, or CFS235, or EED205.

Division: Social & Behavioral Sciences

EED212 / Guidance, Management and the Environment**3 Credits / 3.0 Periods for Lecture**

Principles for guiding young children in early care and education environments. Exploration of guidance, management, and how the environment impacts the lives of young children. Includes observation of classrooms of children ages birth to age eight. Prerequisites: None.

Division: Social & Behavioral Sciences

EED215 / Early Learning: Health, Safety, Nutrition and Fitness**3 Credits / 3.0 Periods for Lecture**

Consideration of public health issues and safety procedures within early childhood settings, serving young children birth to age eight. Overview of nutritional needs and issues of physical fitness and well-being in young children. Includes field experiences. Prerequisites: None.

Division: Social & Behavioral Sciences

EED222 / Introduction to the Exceptional Young Child: Birth to Age Eight**3 Credits / 3.0 Periods for Lecture**

Overview of the exceptional learner (birth - age 5 eight), one who differs from the average or the norm, with emphasis on observation, techniques, characteristics, identification, types of programs, and work with families. Issues related to learning exceptionalities, sensory and communication disorders, social and emotional problems, physical and health related disorders, and giftedness. Includes field experience. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

EED225 / Language and Literacy in the Context of Culture and Relationships**3 Credits / 3.0 Periods for Lecture**

Introduces children's language acquisition and literacy development. Exploration of the relationships among language, literacy, family, culture, and community. Study of educational practices and advocacy opportunities that support language acquisition, literacy development and the preservation of heritage languages. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Social & Behavioral Sciences

EED245 / Early Learning: Language Acquisition and Literacy Development
3 Credits / 3.0 Periods for Lecture

Overview of language acquisition and development, emergent literacy, early literacy development, and appropriate early experiences with books, reading, and writing for typical and atypical children birth to age eight. Emphasis placed on reading and writing readiness, methods to enhance literacy development, and strategies for selecting and using children's books. Prerequisites: None.

Division: Social & Behavioral Sciences

EED255 / Portfolio Development and Writing for the Profession
3 Credits / 3.0 Periods for Lecture

Portfolio development, completion, and presentation. Self-assessment and educational short-term and long-term planning, professional development, writing and critical learning included. Prerequisites: A grade of C or better in completion of twelve (12) credit hours of EED Early Education coursework and permission of Program Coordinator.

Division: Social & Behavioral Sciences

EED260 / Early Childhood Infant/Toddler Internship
1 Credit / 1.0 Periods for Laboratory

Work experience with infants and toddlers in early care and education settings. Eighty (80) hours of designated work per credit. Prerequisites: Permission of Department or Division. Course Notes: May be repeated for a total of six (6) credit hours.

Division: Social & Behavioral Sciences

EED261 / Early Childhood Preschool Internship
1 Credit / 1.0 Periods for Laboratory

Work experience with preschoolers in early care and education settings. Eighty (80) hours of designated work per credit. Prerequisites: Permission of Department or Division. Course Notes: May be repeated for a total of six (6) credit hours.

Division: Social & Behavioral Sciences

EED278 / Early Learning: Curriculum And Instruction - Birth/Preschool
3 Credits / 3.0 Periods for Lecture

Considerations and evaluations of curriculum appropriate to the developmental characteristics of learners, birth through five years. Includes how early childhood standards, philosophies, and program settings relate to the teaching, learning, and assessment process. Includes field experience. Prerequisites: A grade of C or better in EED200.

Division: Social & Behavioral Sciences

EED280 / Standards, Observation and Assessment of Typical/Atypical Behaviors of Young Children Birth to Age 8**3 Credits / 3.0 Periods for Lecture**

Standards, observation, and assessment of typical and atypical behaviors, overview of standards, observation and assessment methodologies for typical and atypical young children (birth to age eight). Includes ethics, referral and reporting procedures, and collaboration with families and other professionals. Prerequisites: A grade of C or better in CFS/ECH176, or CFS235, or EED205.

Division: Social & Behavioral Sciences

Economics (ECN)

ECN160 / Economic History of the United States**3 Credits / 3.0 Periods for Lecture**

A description of the trends of American population, industry, and wealth through examination of major American institutions, historical events, and economic thought. Emphasis on the roles of technology and natural resources in agriculture and industry, the labor force, the monetary system, market structures, and the economic impact of government. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ECN211 / Macroeconomic Principles

3 Credits / 3.0 Periods for Lecture

A descriptive analysis of the structure and functioning of the American economy. Emphasis on basic economic institutions and factors that determine national income and employment levels. Consideration given to the macroeconomic topics of national income, unemployment, inflation and monetary and fiscal policies. Prerequisites: None.



SUN# ECN 2201

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences



ECN212 / Microeconomic Principles

3 Credits / 3.0 Periods for Lecture

Microeconomic analysis including the theory of consumer choice, price determination, resource allocation and income distribution. Includes non-competitive market structures such as monopoly and oligopoly; and the effects of government regulation. Prerequisites: None.



SUN# ECN 2202

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ECN213 / The World Economy

3 Credits / 3.0 Periods for Lecture & Lab

An analysis of the economic interdependence among nations, with emphasis on international trade and finance. Consideration given to the role and function of the multinational enterprise. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

ECN250 / World Economic Systems

3 Credits / 3.0 Periods for Lecture & Lab

A descriptive analysis of capitalist, socialist and mixed economies. Some consideration also given to the problems of less developed economies. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

Education (EDU)

EDU110 / Education in Film

3 Credits / 3.0 Periods for Lecture

Analysis of the portrayal of teaching, schooling and learning in mass media films, including documentary, feature length and emerging platforms. Considers historical, cultural, national and global perspectives on teaching, learning and schooling. Emphasis on identifying factors that contribute to successes as well as failures of schooling within a society. Prerequisites: None.

Division: Social & Behavioral Sciences

EDU115 / Digital Literacy for Teaching and Learning in Education

3 Credits / 3.0 Periods for Lecture

Overview of digital literacy for identifying the skills needed to become informed users of technology to communicate, instruct, create and think critically with digital tools. Explores how emerging technologies are used to teach and learn across varied educational environments (face-to-face, hybrid, online, etc). Includes skills focused on basic computer operations, productivity software, digital citizenship, instructional practices, information literacy and family and professional partnerships. Discusses current trends and related issues about the use of technology and its impacts in P20 education. Prerequisites: None.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Social & Behavioral Sciences

EDU220 / Introduction to Serving English Language Learners (ELL)

3 Credits / 3.0 Periods for Lecture

Historical overview of current educational and legal issues for serving English Learners (EL). Comparison and evaluation of various types of language educational models including Structured English Immersion (SEI), Sheltered English Instruction, and bilingual/Dual Language Immersion (DLI). Includes SEI, Sheltered English Instruction, and bilingual/DLI strategies. Prerequisites: None. Course Notes: Approved school-based practicum is required. EDU220 incorporates the 45-clock hour curricular framework for SEI endorsement through the Arizona Department of Education.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Social & Behavioral Sciences

EDU221 / Introduction to Education

3 Credits / 3.0 Periods for Lecture

Overview of the historical, political, economic, social, and philosophical factors that influence education and make it so complex. Opportunity for students to assess their interest and suitability for teaching. Prerequisites: None. Course Notes: EDU221 requires a minimum of 30 hours of field experience in elementary or secondary classroom environment.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

EDU222 / Introduction to the Exceptional Learner

3 Credits / 3.0 Periods for Lecture

Overview of the exceptional learner with emphasis on factors relating to current practices, identification, characteristics, and educational adaptations. Issues related to mild disabilities, severe disabilities, emotional and behavioral disorders, intellectual disabilities, and students who are gifted. Prerequisites: None. Course Notes: EDU222 requires an approved field experience.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

EDU230 / Cultural Diversity In Education

3 Credits / 3.0 Periods for Lecture

Examination of the relationship of cultural values to the formation of self-concept and learning styles. Examination of the role of prejudice, stereotyping and cultural incompatibilities in education. Emphasis on teacher preparation (preservice and/or inservice) to offer an equal educational opportunity to students of all cultural groups. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Social & Behavioral Sciences

EDU236 / Classroom Relationships

3 Credits / 3.0 Periods for Lecture

Analysis of K-12 classroom interactions, classroom environment, and classroom management skills from a teacher's point of view. Focus on classroom as a multidimensional environment in which principles of classroom design, communication, management, and resources determine effectiveness. Prerequisites: None. EDU221 suggested but not required. Course Notes: Requires a 20-hour field experience in a K-12 classroom.

Division: Social & Behavioral Sciences

EDU250 / Teaching and Learning in the Community College

3 Credits / 3.0 Periods for Lecture

The history, functions, organization and current issues in the community/junior college with emphasis on the Arizona community colleges. Includes focus on the design and practice of effective community college teaching and learning with special emphasis on the Maricopa County Community College District. Prerequisites: None.

Division: Social & Behavioral Sciences

EDU282AC / Service-Learning Experience in Education

3 Credits / 3.0 Periods for Laboratory

Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. Course Notes: EDU282AC may be repeated for a total of six (6) credit hours. Standard grading available according to procedures outlined in catalog.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Social & Behavioral Sciences

EDU291 / Children's Literature

3 Credits / 3.0 Periods for Lecture

Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Social & Behavioral Sciences

EDU292 / The Art of Storytelling**3 Credits / 3.0 Periods for Lecture**

Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Social & Behavioral Sciences

EDU294 / Multicultural Folktales**3 Credits / 3.0 Periods for Lecture**

Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Social & Behavioral Sciences

Electric Utility Technology (EUT)

EUT103 / Introduction to Rigging**2 Credits / 2.0 Periods for Lecture**

Basic fundamentals of overhead rigging. Topics covered include elements of safe rigging, rope, knots and knot tying, use of a handline, and use of blocks and tackle. Exploration of variety approaches to basic rigging tasks. Prerequisites: [A grade of B or better in (MAT055, MAT056, and MAT057), or a grade of B or better in MAT09+, or appropriate district placement into MAT122], and a grade of C or better in ENG091, or ESL097, or appropriate district placement into ENG101.

Division: Aviation and Applied Technology

EUT104 / Equipment Safety and Operation**2 Credits / 2.0 Periods for Lecture & Lab**

Operation and maintenance of equipment used in the utility industry. Identification and inspection of the major mechanical operations of equipment, as well as performance of pre-trip inspections on utility equipment. Emphasis on safety operations. Prerequisites: None.

Division: Aviation and Applied Technology

EUT105 / Introduction to Pole Climbing**1 Credit / 1.0 Periods for Laboratory**

Proper climbing techniques for new climbers. Inspection and maintenance of pole climbing equipment, the equipment used in pole climbing, and how to maintain it. Prerequisites: None.

Division: Aviation and Applied Technology

EUT110 / Line Work I**2 Credits / 2.0 Periods for Lecture**

Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on safety practices and procedures used in utility line work industry. Prerequisites: None.

Division: Aviation and Applied Technology

EUT112 / Basic Electricity: AC and DC**4 Credits / 4.0 Periods for Lecture & Lab**

Reviews the basic principles of Alternating Current (AC) and Direct Current (DC) electricity. Examines the structure and function of AC and DC circuits including series, parallel and series-parallel circuits. Includes an overview of electric systems and their applications in the utility industry. Prerequisites or Corequisites: EUT110 and (EUT115 or CAD101).

Division: Aviation and Applied Technology

EUT115 / Field Training I**4 Credits / 12.0 Periods for Lecture & Lab**

Practice in the basics of climbing and working on utility poles. Focuses on apparatus and equipment, using ropes and rigging equipment, installations of single and double cross arms, pole framing and setting, use of hand line and building single-phase lines. Prerequisites or Corequisites: EUT110 and EUT112.

Division: Aviation and Applied Technology

EUT210 / Line Work II**2 Credits / 2.0 Periods for Lecture**

Overview of line work industry including its history, technological developments and current practices. Examines industry equipment and tools. Focuses on hot sticking, tag out and lock out procedures with emphasis on industry safety practices and procedures. Prerequisites: A grade of C or better in EUT110.

Division: Aviation and Applied Technology

EUT211 / Electrical Apparatus**4 Credits / 4.0 Periods for Lecture & Lab**

Overview of transformers and how they operate. Reviews single and three-phase theory. Focuses on construction and hook-up of single-phase, three-phase, open Y and Delta transformer connections. Presents an overview of surge arresters, including applications and installation. Prerequisites: A grade of C or better in EUT110, EUT112 and (EUT115 or CAD101). Corequisites: EUT215 or CAD164.

Division: Aviation and Applied Technology

EUT215 / Field Training II**4 Credits / 12.0 Periods for Lecture & Lab**

Practice in the installation of electrical lines including transformers, reclosers, and service loops. Teaches rubber gloving, hot sticking techniques, and trenching of underground lines. Practice in the safe set-up and operation of equipment used in the line industry with a focus on the development of entry-level skills as drivers and operators. Includes procedures and practice in pole-top and bucket-truck rescues. Prerequisites: A grade of C or better in EUT110, EUT112, and EUT115.

Corequisites: EUT211.

Division: Aviation and Applied Technology

Electrical Engineering (EEE)

EEE120 / Digital Design Fundamentals**4 Credits / 6.0 Periods for Lecture & Lab**

Number systems, conversion methods, binary and complement arithmetic, Boolean switching algebra and circuit minimization techniques. Analysis and design of combinational logic, flip-flops, simple counters, registers, ROMs, PLDs, synchronous and asynchronous sequential circuits, and state reduction techniques. Building physical circuits. Prerequisites: None. Corequisites: CSC100 or CSC110 or permission of Instructor or Division or Department Chair.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Physical Sciences and Engineering

EEE202 / Circuits and Devices**5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture**

Introduction to circuits and devices. Component models, transient analysis, steady state analysis, Laplace transform, and active and passive filter networks. Prerequisites: A grade of C or better in PHY116 or PHY131 or permission of Instructor or Division or Department Chair. Corequisites: MAT276 or permission of Instructor or Division or Department Chair.

Division: Physical Sciences and Engineering

EEE230 / Computer Organization and Assembly Language**4 Credits / 5.0 Periods for Lecture & Lab**

Assembly language programming including input/output (I/O) programming and exception/interrupt handling. Register-level computer organization, I/O interfaces, assemblers, and linkers. Processor organization and design, data path, control, pipelining, and input/output. Memory organization with cache and virtual memory. Prerequisites: A grade of C or better in [(CSC100 or CSC110) and CSC/EEE120], or permission of Instructor or Division or Department Chair.

Division: Physical Sciences and Engineering

Emergency Medical Technology (EMT)

EMT101 / Basic Life Support/Cardiopulmonary Resuscitation (CPR) for Health Care Providers**0.5 Credits / 0.5 Periods for Lecture & Lab**

Designed to provide the allied healthcare provider with the knowledge and skills to perform Basic Life Support (BLS) according to current guidelines for emergency cardiovascular care (ECC). Prerequisites: None. Course Notes: EMT101 may be repeated for credit.

Division: Health Science and Public Service

EMT104 / Emergency Medical Technology**10 Credits / 10.0 Periods for Lecture**

Designed as the Emergency Medical Technician (EMT) lecture to prepare students for scope of practice and standard of care with comprehensive assessment, diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies and non-emergencies. Prerequisites: Appropriate score on Reading placement test to demonstrate minimum tenth grade level reading, or completion of an Associate's degree or higher from an accredited institution. Course Notes: Students must meet National Registry of EMT requirements for certification. Additional information available at nremt.org EMT104 may be repeated for credit.

Division: Health Science and Public Service

EMT104AB / Applied Practical Studies for Emergency Medical Technology**0.5 Credits / 0.5 Periods for Laboratory**

Simulation of actual emergency responses, with practical application of techniques and skills covered in EMT curricula. Scenario based learning applied to the techniques of emergency medical care in accordance with national and state curriculum. Practical application of anatomy, physiology, patient assessment, and treatment of medically or traumatically compromised patients, special hazards and medical operations. Also includes patient-assisted medication administration, semi-automatic external defibrillator and blood glucose monitoring. Students operate in outside, scenario based environments. Prerequisites: None. Corequisites: EMT104. Course Notes: EMT/FSC104AB may be repeated for credit.

Division: Health Science and Public Service

EMT104LL / Emergency Medical Technology Practicum**2 Credits / 3.5 Periods for Laboratory**

Designed as the simulated Emergency Medical Technician (EMT) practicum in which the student synthesizes standard of care and scope of practice with comprehensive assessment and diagnostic technology, patient advocacy, ethical and professional behaviors, critical thinking, decision-making, and patient management of medical and trauma emergencies. Provides scenario based learning applied to the techniques of emergency medical care in accordance with national and state curriculum. Prerequisites: A grade of C or better in EMT104 or permission of Instructor or Corequisites: EMT104. Course Notes: EMT104LL may be repeated for credit. Students must meet National Registry of EMT requirements for certification. Additional information available at nremt.org

Division: Health Science and Public Service

EMT258 / Victimology and Crisis Management**3 Credits / 3.0 Periods for Lecture**

Victimology, the criminal justice system, techniques of crisis intervention, and the importance of a multicultural and global perspective. Includes sexual assault, family violence, post-traumatic stress disorder, the role of substance abuse, effective coping skills, appropriate community resources and the responsiveness of the justice system. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Health Science and Public Service

Engineering Science (ECE)

ECE102 / Engineering Analysis Tools and Techniques 2 Credits / 4.0 Periods for Lecture & Lab

Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. A grade of C or better is required in all Prerequisites. Prerequisites or Corequisites: MAT182, or higher level mathematics course, or permission of Instructor or Department or Division Chair.



SUN# EGR 1102

Division: Physical Sciences and Engineering

ECE103 / Engineering Problem Solving and Design 2 Credits / 4.0 Periods for Lecture & Lab

Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession. Prerequisites: A grade of C or better in ECE102 or permission of Instructor or Division or Department Chair. Course Notes: Student may receive credit for only one of the following: ECE103 or ECE103EP.



SUN# EGR 1102

Division: Physical Sciences and Engineering

ECE105 / MATLAB Programming 1 Credit / 2.0 Periods for Lecture & Lab

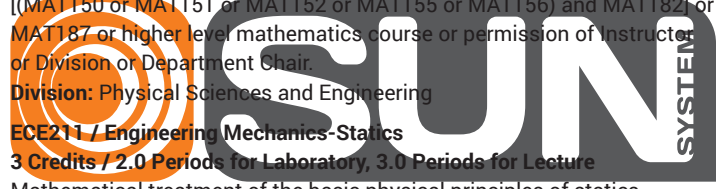
Use MATLAB to solve engineering problems. An overview of programming, including matrices, structures, strings, functions, control flow, file management, data analysis, graphing capabilities, and mathematical calculations. Prerequisites: A grade of C or better in [(MAT150 or MAT151 or MAT152 or MAT155 or MAT156) and MAT182] or MAT187 or higher level mathematics course or permission of Instructor or Division or Department Chair.

Division: Physical Sciences and Engineering

ECE211 / Engineering Mechanics-Statics 3 Credits / 2.0 Periods for Laboratory, 3.0 Periods for Lecture

Mathematical treatment of the basic physical principles of statics. Methods of vector algebra and vector calculus. Prerequisites: A grade of C or better in PHY115 or PHY121 or permission of Instructor or Division or Department Chair. Corequisites: MAT230 or MAT231 or permission of Instructor or Division or Department Chair.

Division: Physical Sciences and Engineering



ECE212 / Engineering Mechanics - Dynamics**3 Credits / 2.0 Periods for Laboratory, 3.0 Periods for Lecture**

Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles. A grade of C or better required in all Prerequisites. Prerequisites: [ECE211 and (PHY115 or PHY121)] or permission of Instructor or Division or Department Chair. Prerequisites or Corequisites: MAT240 or MAT241 or permission of Instructor or Division or Department Chair.

Division: Physical Sciences and Engineering

ECE215 / Mechanics of Materials**3 Credits / 5.0 Periods for Lecture & Lab**

Designed to provide students with a strong fundamental foundation in the mechanics of solids. Includes the concepts of stress and strain applied to the analysis and design of members subjected to axial and torsional loads and members subjected to shear and bending, applications and transformation of plane stress and plane strain, deformation of beams, and elastic buckling of columns. Prerequisites: A grade of C or better in ECE211 or ECE214 or permission of Instructor or Division or Department Chair.

Division: Physical Sciences and Engineering

ECE216 / Computer-Aided Engineering**2 Credits / 2.0 Periods for Lecture**

Introduction to engineering graphics, including tolerancing and fasteners, as well as creation and use of engineering drawings. Prerequisites: A grade of C or better in ECE103, or ECE103EP, or permission of Instructor or Division or Department Chair. Corequisites: ECE216LL.

Division: Physical Sciences and Engineering

ECE216LL / Computer-Aided Engineering Laboratory**1 Credit / 2.0 Periods for Laboratory**

Laboratory experience in support of ECE216. Prerequisites: A grade of C or better in ECE103, or ECE103EP, or permission of Instructor. Corequisites: ECE216.

Division: Physical Sciences and Engineering

ECE280 / Foundational Statistics for Engineers**3 Credits / 5.0 Periods for Lecture & Lab**

Fundamentals of probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, regression analysis, analysis of variance, and design of experiments. Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent.

Division: Physical Sciences and Engineering

ECE298AA / Special Projects**1 Credit / 1.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Instructor, or Department or Division Chair.

Division: Physical Sciences and Engineering

English (ENG)

ENG081 / Preparatory Academic Writing II**3 Credits / 3.0 Periods for Lecture**

Emphasizes preparation for college-level composition and related reading tasks with a focus on critical writing, reading, and thinking skills and processes. Prerequisites: Appropriate writing placement test score, or a grade of "C" or better in ENG071 or ESL077, or permission of Department or Division.

Division: Composition, Creative Writing, and Literature

ENG091 / Preparatory Academic Writing III**3 Credits / 3.0 Periods for Lecture**

Emphasizes preparation for first year composition with a focus on critical writing, reading, and thinking skills and processes at an increased level of academic complexity. Prerequisites: Appropriate writing placement test score, or a grade of "C" or better in ENG081 or ESL087, or permission of Department or Division.

Division: Composition, Creative Writing, and Literature

ENG100AE / Composition Skills**1 Credit / 1.0 Periods for Lecture**

Developing generative and evaluative writing skills using selected software programs. Prerequisites: Appropriate English placement test score, or a grade of "C" or better in ENG091 or ESL097, or permission of Instructor.

Division: Composition, Creative Writing, and Literature

ENG101 / First-Year Composition**3 Credits / 3.0 Periods for Lecture**

Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 or ESL097 or WAC101, or a grade of B or better in ALT100, or (a grade of C in ALT100 AND Corequisites: ENG101LL or ENG107LL OR WAC101 OR ENG100A+).



SUN# ENG 1101

Fulfills: First-Year Composition (FYC)**Division:** Composition, Creative Writing, and Literature**ENG102 / First-Year Composition****3 Credits / 3.0 Periods for Lecture**

Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. Prerequisites: Grade of C or better in ENG101.



SUN# ENG 1102

Fulfills: First-Year Composition (FYC)**Division:** Composition, Creative Writing, and Literature**ENG107 / First-Year Composition for ESL****3 Credits / 3.0 Periods for Lecture**

Equivalent of ENG101 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on expository writing and understanding writing as a process. Establishing effective college-level writing strategies through four or more writing projects comprising at least 3,000 words in total. Prerequisites: Appropriate writing placement test score, or a grade of C or better in ENG091 or ESL097 or WAC101, or a grade of B or better in ALT100, or (a grade of C in ALT100 AND Corequisites: ENG101LL or ENG107LL OR WAC101 OR ENG100A+).

Fulfills: First-Year Composition (FYC)**Division:** Composition, Creative Writing, and Literature**ENG108 / First-Year Composition for ESL****3 Credits / 3.0 Periods for Lecture**

Equivalent of ENG102 for students of English as a Second Language (ESL). Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. Prerequisites: A grade of C or better in ENG107.

Fulfills: First-Year Composition (FYC)**Division:** Composition, Creative Writing, and Literature

ENG111 / Technical and Professional Writing**3 Credits / 3.0 Periods for Lecture**

Covers analyzing, planning, organizing, researching, and writing correspondence, reports, and presentations for specific work-related audiences. Includes integrating data and graphics into work-related documents and presentations. Prerequisites: ENG101 with a grade of C, or better, or permission of Instructor.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENG200 / Reading and Writing About Literature**3 Credits / 3.0 Periods for Lecture**

Emphasis on critical analysis of various genres of literature; includes study of necessary terminology, introduction to methods of literary criticism, and practice in interpretation and evaluation. Prerequisites: A grade of C or better in ENG102.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENG210 / Creative Writing**3 Credits / 3.0 Periods for Lecture**

Skills and techniques used in the production of marketable materials for contemporary publications that buy prose fiction, poetry, and expository articles. Prerequisites: ENG102 with a grade of C, or better, or permission of Department or Division. Course Notes: ENG210 may be repeated for a total of six (6) credit hours with permission of Department or Division.

Division: Composition, Creative Writing, and Literature

ENG213 / Introduction to the Study of Language**3 Credits / 3.0 Periods for Lecture**

Study of language as code; phonetics, phonology, morphology, syntax, semantics; language acquisition; historical and socio-linguistics.

Prerequisites: A grade of C or better in ENG102, or ENG111, or permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Composition, Creative Writing, and Literature

ENG215 / Strategies of Academic Writing**3 Credits / 3.0 Periods for Lecture**

Advanced course in techniques of analyzing and writing academic expository prose. Writing to be research based. Prerequisites: A grade of C or better in ENG102, or ENG111, or permission of Instructor. Course Notes: General Education Designation: Literacy and Critical Inquiry - [L]

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENG216 / Persuasive Writing on Public Issues**3 Credits / 3.0 Periods for Lecture**

Advanced course in techniques of analyzing and writing persuasive arguments addressing topics of current public interest. Papers research based. Prerequisites: A grade of C or better in ENG102.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENG217 / Personal and Exploratory Writing**3 Credits / 3.0 Periods for Lecture**

Using writing to explore one's self and the world one lives in; emphasis on journal writing as a source and inspiration for public writing.

Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENG218 / Writing about Literature**3 Credits / 3.0 Periods for Lecture**

Advanced writing course requiring analytical and expository essays about fiction, poetry, and drama. Prerequisites: A grade of C or better in ENG102.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENG235 / Magazine Article Writing**3 Credits / 3.0 Periods for Lecture**

Basic skills and techniques used by professional writers for publication in magazines. Includes analyzing markets, identifying article slant, research techniques, editing, and submission procedures. Emphasis on nonfiction.

Prerequisites: None.

Division: Composition, Creative Writing, and Literature

English Humanities (ENH)

ENH110 / Introduction to Literature**3 Credits / 3.0 Periods for Lecture**

Introduction to international literature through various forms of literary expression; e.g., poetry, drama, essay, biography, autobiography, short story, and novel. Provides a global overview of literature with special emphasis on diverse cultural contributions of women, African Americans, Asian Americans, Hispanic Americans, and Native Americans. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH111 / Literature and the American Experience**3 Credits / 3.0 Periods for Lecture**

Introduction to the foundations and diversity of American culture through a survey of its literature, including minority and women writers. Exploration of various facets of American culture including frontier, regional, rural, and urban life; ethnic, racial, and immigrant experience; and political and social philosophies. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

ENH112 / Chicano Literature**3 Credits / 3.0 Periods for Lecture**

Introduction to the works of Mexican-American writers of the Southwest. Samples poetry, fiction, and essays viewed in their relationship to American cultural heritage and to contemporary culture. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH113 / Writers/Directors and Current Issues**3 Credits / 3.0 Periods for Lecture**

In-depth analysis of literary texts by contemporary writers/directors throughout the world, including essayists, journalists, playwrights, novelists, directors, short story writers, and/or poets. Examines perspectives representing a variety of cultures. Critical responses to current issues of worldwide interest examined, including topics as environment, technology, medicine, economics, politics, education, human rights, law and order. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH114 / African-American Literature**3 Credits / 3.0 Periods for Lecture**

Survey of major African-American writers from Colonial period through the present; analysis of trends and movements within African-American literary history; analysis of literary types and selected works. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Composition, Creative Writing, and Literature

ENH117 / Rap Literature: The Oral Tradition**3 Credits / 3.0 Periods for Lecture**

Survey of selected rap poetry looking at the oral tradition of Africa, the Caribbean, and the United States as precursors to East Coast, West Coast, Southern, North Central, and International development of the genre. Investigation of cultural environments, historical events, competitions (the "battles"), artists' biographies, and parallel art forms as they relate to the analysis of the genre and its themes. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

ENH130 / Mystery Fiction from the Nineteenth Century to the Present**3 Credits / 3.0 Periods for Lecture**

A study of mystery fiction as a literary genre and as a reflection of culture through the writings of significant authors. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

ENH140AA / Sports in Literature and Film**3 Credits / 3.0 Periods for Lecture**

Explores how sports are and have been represented in narrative literature and film, using examples from a range of U.S. media. Investigates the ways in which narrative representation engages changing cultural and historical contexts, and shapes of how fields of human endeavor are perceived. Focus on analysis of narratives' form and content, and the construction of meaning. Prerequisites: Appropriate reading placement and eligibility for ENG101 as indicated by appropriate writing placement.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Composition, Creative Writing, and Literature

ENH190 / Introduction to US Ethnic Literature**3 Credits / 3.0 Periods for Lecture**

Introduction to the US ethnic literatures of African Americans, Arab Americans, Asian Americans, Latinas/os, Native Americans, Mixed Race, and other emerging ethnic groups through various expressions. Examines the interconnections of the various experiences of racialized groups living in the US. Provides ethnic US literature a global context through study of the interconnections with the literatures of Africa, Asia, Latin America, and Oceania. Focus on literary production of at least four specific US ethnic groups and relevant international literatures. Prerequisites or Corequisites: ENG101 or ENG107.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Composition, Creative Writing, and Literature

ENH201 / World Literature Through the Renaissance**3 Credits / 3.0 Periods for Lecture**

Examines a selection of the world's literary masterpieces within their cultural contexts from ancient times through the Renaissance. Analyzes the influences of major literary philosophies, themes, genre, and styles. Assesses the contributions of major writers. Introduces the terminology of literary analysis. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH202 / World Literature After the Renaissance**3 Credits / 3.0 Periods for Lecture**

Includes a selection of the world's literary masterpieces from the Renaissance to modern times. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH204 / Introduction to Contemporary Literature**3 Credits / 3.0 Periods for Lecture**

Examines the work of major writers in poetry, fiction and drama from 1945 to the present. Examines important movements that have developed within these genre since 1945. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH206 / Nature and Environmental Literature**3 Credits / 3.0 Periods for Lecture**

Investigates major themes in nature and environmental writing. Explores relationship between humanity and the environment as expressed through fiction, non-fiction, and poetry. Examines how literature drives attitudes and policies. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH214 / Poetry Study**3 Credits / 3.0 Periods for Lecture**

Involves reading, discussing, and analyzing poetry of various forms and from selected periods. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH221 / Survey of English Literature Before 1800**3 Credits / 3.0 Periods for Lecture**

Emphasizes the social and political backgrounds as well as the form and content of English literature from Anglo-Saxon times to the end of the eighteenth century. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH222 / Survey Of English Literature After 1800**3 Credits / 3.0 Periods for Lecture**

Emphasizes the social and political backgrounds as well as the form and content of English literature in the nineteenth and twentieth centuries. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH230 / Introduction to Shakespeare**3 Credits / 3.0 Periods for Lecture**

Introduces Shakespeare the playwright, the sonneteer, the linguist, and the citizen of the 17th century. Considers the major tragedies, comedies, histories, and sonnets; focuses on the use of language; and connects the writer to the time. Some emphasis on Shakespeare's influence through the centuries, noting parallels between the late 16th century and the late 20th century. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH231 / Introduction to Shakespeare: The Early Plays**3 Credits / 3.0 Periods for Lecture**

Introduces Shakespeare, the playwright and linguist, and the late 16th century. Considers representative comedies, histories, and tragedies from Shakespeare's early period, from 1590-1599. Focuses on the use of language and connects the writer to his historical era. Also considers Shakespeare's relevance to the present time. Prerequisites: None. Course Notes: Student may receive credit for only one of the following: ENH230 or ENH231.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH232 / Introduction to Shakespeare: The Late Plays**3 Credits / 3.0 Periods for Lecture**

Introduces Shakespeare, the playwright and linguist, and the early 17th century. Considers representative comedies, histories, tragedies, and romances from Shakespeare's late period, 1600-1611. Focuses on the use of language and connects the writer to his historical era. Also considers Shakespeare's relevance to the present time. Prerequisites: None. Course Notes: Student may receive credit for only one of the following: ENH230 or ENH232.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH235 / Survey Of Gothic Literature**3 Credits / 3.0 Periods for Lecture**

A study of the origins, common elements and characteristics, and historical development of Gothic literature with an exploration of the literary techniques and psychological aspects of the genre. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH241 / American Literature Before 1860**3 Credits / 3.0 Periods for Lecture**

Includes literature written prior to 1860 in the United States.

Prerequisites: A grade of C or better in ENG101.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENH242 / American Literature After 1860**3 Credits / 3.0 Periods for Lecture**

Includes literature written after 1860 in the United States. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH245 / J.R.R. Tolkien and C.S. Lewis: Battling Modernism**3 Credits / 3.0 Periods for Lecture**

Focuses on the writings, language, themes, influences and vision of J.R.R. Tolkien and C.S. Lewis in contrast to the ideas and literature of the Modernist movement. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH250 / Classical Backgrounds in Literature**3 Credits / 3.0 Periods for Lecture**

Introduction to selected readings of Greek and Latin literature in translation and to the key elements as integral aspects of Western culture through successive ages. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH251 / Mythology**3 Credits / 3.0 Periods for Lecture**

Deals with the myths and legends of civilizations with the greatest influence upon the development of the literature and culture of the English speaking people, and compares those myths with myths from other cultures. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH253 / Contemporary Global Literature and Film**3 Credits / 3.0 Periods for Lecture**

Characteristics of literary and cinematic mediums. Challenges of adapting literature to film. Global examination of historical, religious, socioeconomic, political, and colonial/post colonial themes depicted in Western and non-Western literature and film (e. g., Africa, Asia, and Latin America) outside the United States. Use of narrative in each medium and how it translates various global/international perspectives and cultural assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film. Prerequisites: A grade of C or better in ENG101.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Composition, Creative Writing, and Literature

ENH254 / Literature and Film**3 Credits / 3.0 Periods for Lecture**

Presents works of literature and their film versions and analyzes distinguishing techniques of each medium. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENH255 / Contemporary U.S. Literature and Film**3 Credits / 3.0 Periods for Lecture**

Strengths and weaknesses of literature and film. Challenges of adapting literature to film. Addressing racial, ethnic, gender, class and religious differences between cultures and mediums. Use of narrative in each medium and how it translates various cultural values and assumptions. Specific genres present in literature and film. Cultural metaphors and symbols used in literature and film. Prerequisites: A grade of C or better in ENG101.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENH256 / Shakespeare On Film**3 Credits / 3.0 Periods for Lecture**

Presents cinematic versions of Shakespeare's plays and explains and analyzes how the dramatist's major tragedies, comedies, histories and romances have been presented on film. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH259 / American Indian Literature**3 Credits / 3.0 Periods for Lecture**

Contemporary American Indian forms of literary expression. Selected oral traditions of American Indians. Trends and movements within American Indian literary history. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH260 / Literature of the Southwest**3 Credits / 3.0 Periods for Lecture**

Investigates major themes in Southwestern American literature including the Western myth, minority roles in the region's literature, control of nature versus primacy of nature, and growth. Both prose and poetry are examined with an emphasis on contemporary Southwestern writing. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH275 / Modern Fiction**3 Credits / 3.0 Periods for Lecture**

Includes novels and short stories of modern writers which reflect significant themes of our time. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH277 / Narrative Genres**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AA / Dark Futures: Dystopian Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AB / Whodunnits: Mystery Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AC / Happily Ever: Children's Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AD / Stuff Blows Up: Action Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AE / Tour of Duty: War Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

ENH277AF / Heroic Quests: Fantasy Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AG / Out There: Science Fiction Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Composition, Creative Writing, and Literature

ENH277AH / Facing Fear: Horror Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AI / Make 'em Laugh: Comedy Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AJ / Love and Passion: Romance Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH277AK / The Wild Frontier: Western Narrative**3 Credits / 3.0 Periods for Lecture**

Explores how narrative shapes culture and culture shapes narrative through the international study of a particular genre in multiple media (e.g. literature, film, television, computer games, etc.). Investigates how a genre evolves, and how genre conventions influence narrative production and reception. Focus on analysis of key texts and their contexts. Prerequisites: A grade of C or better in ENG101 or ENG107. ENH110 or ENG200 suggested but not required.

Division: Composition, Creative Writing, and Literature

ENH280 / Topics in American Literature**3 Credits / 3.0 Periods for Lecture**

Exploration of selected topic(s) in American Literature. Focuses on a theme, genre, era, technique, or critical approach. Includes reading and interpretation of literature from a variety of cultures within the United States. Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor. Course Notes: May be repeated for a total of nine (9) credit hours.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH284 / 19th Century Women Writers**3 Credits / 3.0 Periods for Lecture**

Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH285 / Contemporary Women Writers**3 Credits / 3.0 Periods for Lecture**

Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH291 / Children's Literature**3 Credits / 3.0 Periods for Lecture**

Review of folk and modern literature from a variety of world cultures, including application of literary criteria to folk and modern literature for children. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH294 / Multicultural Folktales**3 Credits / 3.0 Periods for Lecture**

Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

ENH295 / Banned Books and Censorship**3 Credits / 3.0 Periods for Lecture**

History, motivations, and effects of censorship in a democratic society. Censorship and book banning as a method of silencing diverse voices. Critical analysis of banned or challenged literature for children and adults. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

Environmental Sciences (ENV)

ENV101 / Introduction to Environmental Science**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Introduces the interconnected nature of environmental science and solutions to environmental issues. Prerequisites: None.

Division: Biological Sciences

Excellence/Teaching/Learning (ETL)

ETL220 / Online Teaching and Learning I**3 Credits / 3.0 Periods for Lecture**

Application of and experience using an online teaching and learning environment from a student's perspective to inform the design and support of an online course environment. Application and evaluation of online learning principles and tools for teaching and learning. Identification and development of online facilitation knowledge and skills. Introduction to the best practices in content building, course design and delivery. Prerequisites: Permission of Instructor.

Division: Social & Behavioral Sciences

ETL221 / Online Teaching and Learning II**3 Credits / 3.0 Periods for Lecture**

Experience with creating an online or hybrid duplicative course module structure in an online teaching and learning environment using evidence-based practices in course design. Develop learning objectives and module map based on curricular principles. Using instructional design techniques develop and align materials, activities, assignments and assessments to learning objectives. Discuss and develop active learning strategies for presenting content, facilitating discussions, creating assignments and administering assessments in the online environment. Prerequisites: A grade of C or better in ETL220 or permission or Instructor.

Division: Social & Behavioral Sciences

Exercise Science (EXS)

EXS101 / Introduction to Exercise Science**3 Credits / 3.0 Periods for Lecture**

Introductory course that will provide the student with a general overview of the key theories and concepts, professions, and research areas associated with the field of Exercise Science. Educational pathways and career options will also be examined. Prerequisites: None.

Division: Health Science and Public Service

EXS112 / Professional Applications of Fitness Principles**3 Credits / 3.0 Periods for Lecture**

Basic principles of fitness for the prospective fitness professional and characteristics of quality communication and fitness leadership. Topics include behavior modification, enhancing motivation components of fitness, fitness assessment, risk stratification, exercise programming and modifications. Prerequisites: None.

Division: Health Science and Public Service

EXS125 / Introduction to Exercise Physiology**3 Credits / 3.0 Periods for Lecture**

Principles of exercise science applied to fitness instruction. Major factors related to the function of the human body will be examined/introduced with an emphasis on exercise physiology and functional anatomy. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor.

Division: Health Science and Public Service

EXS130 / Strength Fitness-Physiological Principles and Training Techniques**3 Credits / 3.0 Periods for Lecture**

Principles and techniques of strength training including strength physiology, performance factors, training recommendations, exercise techniques, and program design and management. Prerequisites: None.

Division: Health Science and Public Service

EXS132 / Cardiovascular Fitness: Physiological Principles and Training Techniques**3 Credits / 3.0 Periods for Lecture & Lab**

Covers principles and techniques of aerobic training and the application of these to the development of aerobic training programs. Includes instructional techniques and safety, and stresses injury prevention. Prerequisites: None.

Division: Health Science and Public Service

EXS145 / Guidelines for Exercise Testing and Prescription**3 Credits / 4.5 Periods for Lecture & Lab**

Follows the current ACSM guidelines for health appraisal, risk assessment, safety of exercise, exercise testing, and exercise prescription. Prerequisites: None.

Division: Health Science and Public Service

EXS146 / Introduction to Exercise Testing**1 Credit / 2.0 Periods for Lecture & Lab**

Introductory course in exercise testing, to include health appraisal, risk stratification, and the selection and administration of common evidence-based assessments for apparently healthy populations. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor. Prior completion of or concurrent enrollment in EXS125 is recommended.

Division: Health Science and Public Service

EXS210 / Assessment and Program Design: Muscular Fitness**2 Credits / 3.0 Periods for Lecture & Lab**

Principles of muscular fitness training including evaluation of movement patterns, selection and interpretation of assessment techniques and evidence-based program design for healthy and special populations. Prerequisites: A grade of C or better in EXS125.

Division: Health Science and Public Service

EXS211 / Assessment and Program Design: Flexibility and Balance**2 Credits / 3.0 Periods for Lecture & Lab**

Principles of flexibility and balance including evaluation of movement patterns, selection and interpretation of assessment techniques and evidence-based program design for healthy and special populations. Prerequisites: A grade of C or better in EXS125.

Division: Health Science and Public Service

EXS212 / Assessment and Program Design: Cardiorespiratory Fitness**2 Credits / 3.0 Periods for Lecture & Lab**

Principles of cardiorespiratory fitness training including evaluation of client needs and health, selection and interpretation of safe and effective assessment techniques and evidence-based program design for healthy and special populations. Prerequisites: A grade of C or better in EXS125.

Division: Health Science and Public Service

EXS213 / Assessment and Program Design: Weight Management and Motivation**2 Credits / 3.0 Periods for Lecture & Lab**

Principles of weight management including evidence-based program design and interpretation of assessments for various populations as well as explanation of theories of motivation and behavior modification. Prerequisites: A grade of C or better in EXS125.

Division: Health Science and Public Service

EXS214 / Instructional Competency: Flexibility and Mind-Body Exercises**2 Credits / 3.0 Periods for Lecture & Lab**

Fundamental methods of instructing and leading fitness activities including flexibility activities. Core competencies identified by professional certification agencies. Prerequisites: A grade of C or better in (EXS125 and HES100) or permission of Instructor.

Division: Health Sciences

EXS215 / Resistance Training and Recovery Techniques**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamental methods for safe and effective instruction of resistance, functional, and athletic conditioning exercises. Application of foundational principles of physiology and kinesiology. Overview of warm-up, cooldown, and recovery techniques. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor.

Division: Health Science and Public Service

EXS216 / Instructional Competency: Muscular Strength and Conditioning**2 Credits / 3.0 Periods for Lecture & Lab**

Fundamental methods of instructing and leading fitness activities including strength and conditioning activities. Core competencies identified by professional certification agencies. Prerequisites: A grade of C or better in (EXS125 and HES100) or permission of Instructor.

Division: Health Sciences

EXS217 / Cardiorespiratory and Flexibility Training**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamental methods for safe and effective instruction of cardiorespiratory and flexibility training exercises. Application of foundational principles of physiology and kinesiology. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: EXS101 or permission of Instructor.

Division: Health Science and Public Service

EXS218 / Instructional Competency: Cardiorespiratory Exercises and Activities**2 Credits / 3.0 Periods for Lecture & Lab**

Fundamental methods of instructing and leading fitness activities including cardiorespiratory exercises and activities. Core competencies identified by professional certification agencies. Prerequisites: A grade of C or better in (EXS125 and HES100) or permission of Instructor.

Division: Health Sciences

EXS239 / Practical Applications of Personal Training Skills and Techniques Internship**3 Credits / 5.4 Periods for Lecture & Lab**

A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. Course Notes: CPR certification must be current through the duration of the internship. EXS239 may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS239AA / Practical Applications of Personal Training Skills and Techniques Internship**1 Credit / 1.8 Periods for Lecture & Lab**

A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. Course Notes: CPR certification must be current through the duration of the internship. EXS239AA may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS239AB / Practical Applications of Personal Training Skills and Techniques Internship**2 Credits / 3.6 Periods for Lecture & Lab**

A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. Course Notes: CPR certification must be current through the duration of the internship. EXS239AB may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS246 / Advanced Exercise Testing**2 Credits / 3.0 Periods for Lecture & Lab**

Advanced course in exercise testing, to include health appraisal, risk stratification, and the selection and administration of evidence-based assessments for apparently healthy and athletic populations. Pharmacology, special populations, and environmental conditions are also examined. Prerequisites: A grade of C or better in EXS146 or permission of Instructor.

Division: Health Science and Public Service

EXS255 / Program Design: Muscular Fitness and Performance**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced principles of muscular fitness, sports performance, and recovery techniques including needs analysis, interpretation of assessment outcomes, and evidence-based program design for healthy and athletic populations. Considerations for special populations and environments also examined. Prerequisites: A grade of C or better in (EXS125 and EXS146) or permission of Instructor.

Division: Health Science and Public Service

EXS257 / Program Design: Cardiorespiratory Fitness**3 Credits / 4.0 Periods for Lecture & Lab**

Advanced principles of cardiorespiratory fitness and weight management including needs analysis, interpretation of assessment outcomes, and evidence-based program design for healthy and athletic populations. Considerations for special populations and environments are also examined. Prerequisites: A grade of C or better in (EXS125 and EXS146) or permission of Instructor.

Division: Health Science and Public Service

EXS270 / Exercise Science Internship**3 Credits / 3.0 Periods for Laboratory**

A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/Division Chair and/or the Program Director. Course Notes: CPR and AED certifications must be current through the duration of the internship. EXS270 may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS270AA / Exercise Science Internship**1 Credit / 1.0 Periods for Laboratory**

A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/Division Chair and/or the Program Director. Course Notes: CPR certification must be current through the duration of the internship. EXS270AA may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS270AB / Exercise Science Internship**2 Credits / 2.0 Periods for Laboratory**

A capstone experience in a fitness or health related facility. Eighty (80) hours of designated work per credit. Prerequisites: Completion of nine (9) credits of EXS courses with a grade of C or better, current CPR and AED card, and permission of Department/Division Chair and/or the Program Director. Course Notes: CPR and AED certifications must be current through the duration of the internship. EXS270AB may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS275 / Sport Science Internship**3 Credits / 3.0 Periods for Lecture & Lab**

A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit. Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. Course Notes: EXS275 may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS275AA / Sport Science Internship**1 Credit / 1.0 Periods for Lecture & Lab**

A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit. Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. Course Notes: EXS275AA may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS275AB / Sport Science Internship**2 Credits / 2.0 Periods for Lecture & Lab**

A capstone experience in a fitness or health related facility supervised by a National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialists (CSCS) professional. Eighty (80) hours of designated work per credit. Prerequisites: Completion of a grade of C or better in nine (9) credits of EXS courses, approved by the Department Chair and/or Director, current CPR and AED card, and permission of Department or Division. Course Notes: EXS275AB may be repeated for a maximum of six (6) credits.

Division: Health Science and Public Service

EXS280 / Special Topics in Exercise Science**2 Credits / 2.0 Periods for Lecture**

Conceptual and research basis of current topics in exercise science. Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor. Course Notes: EXS280 may be repeated for credit.

Division: Health Science and Public Service

EXS280AB / Special Topics in Exercise Science**1 Credit / 1.0 Periods for Lecture**

Conceptual and research basis of current topics in exercise science. Prerequisites: A grade of C or better in EXS101, or EXS112, or EXS125, or permission of Instructor. Course Notes: EXS280AB may be repeated for credit.

Division: Health Science and Public Service

EXS290 / Introduction to Evidence-Based Practice**3 Credits / 3.0 Periods for Lecture**

Introduction to best practices in the acquisition, analysis, synthesis, and potential application of research in the discipline of exercise science. Specific emphasis on the application of research-based evidence for applied problem solving in exercise science. Prerequisites: A grade of C or better in [(RDG100, or RDG100LL, or RDG111, or RDG112, or RDG113 or satisfactory District reading placement) and (MAT090, or MAT091, or MAT092, or satisfactory District math placement) and (ENG101 or ENG107)] or permission of Instructor. EXS101 recommended.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Health Science and Public Service

Food and Nutrition (FON)

FON100 / Introductory Nutrition**3 Credits / 3.0 Periods for Lecture**

Introduction to the science of food and human nutrition. Current sustainable dietary recommendations and applications for maximizing well-being and minimizing risk of chronic disease throughout the life cycle. An overview of the nutrients, emphasizing the importance of energy and fluid balance, and optimal functioning of the digestive system. Understanding factors that influence food intake in different cultures. Methods for evaluating credibility of nutrition claims, a focus on modern food safety and technology practices, and a worldview of nutrition are included. Emphasis is on personal dietary behavior change for a holistic life of wellness. Prerequisites: None.

Division: Health Science and Public Service

FON104 / Certification in Food Service Safety and Sanitation**1 Credit / 1.0 Periods for Lecture**

Preparation for and certification in a national food sanitation and safety program. Emphasis on food from purchasing, receiving, and storing to preparation, holding, and serving. Focuses on safe and sanitary food service facilities and equipment, employee habits and personal hygiene, and role of management in safety and sanitation. Includes time-temperature principles, foodborne illnesses, pest control, accident prevention, standards for cleaning and sanitizing, and regional regulations and standards. Prerequisites: None.

Division: Health Science and Public Service

FON125 / Introduction to Professions in Food, Nutrition, and Dietetics**1 Credit / 1.0 Periods for Lecture**

Overview and discussion of career opportunities in the fields of food, nutrition, and dietetics. Includes information about history, ethics, standards of practice, communication and counseling skills. Emphasis on how to become a Registered Dietitian Nutritionist or a Dietetic Technician Registered. Prerequisites: None.

Division: Health Science and Public Service

FON135 / Sustainable Cooking**3 Credits / 4.0 Periods for Lecture & Lab**

Basic cooking techniques for healthful and enjoyable eating. Emphasis on strategies for maximizing the use of whole, local, and nutrient-dense food while focusing on applying the dietary recommendations for optimal health to food choices. Opportunities to learn about sustainable food living and identifying resources that enable people to be more in control of their food supply. Covers issues of diversity as related to sustainable food systems and equitable access to food. Prerequisites: None. Course Notes: Laboratory component involves hands-on experience in the college teaching or commercial kitchen and garden (or similar teaching or commercial food operation). Students employed in a farm-to-table or similar operation may complete their hands-on portion under their employer's supervision.

Division: Health Science and Public Service

FON142AB / Science of Food**3 Credits / 5.0 Periods for Lecture & Lab**

Exploration and Application of Scientific Principles of Food; experiences with ingredient functionality and application in cooking techniques.

Prerequisites: None.

Division: Health Science and Public Service

FON207 / Introduction to Nutrition Services Management**3 Credits / 3.0 Periods for Lecture**

Principles, knowledge, and techniques required for effective nutrition services management. Includes nutrition service issues in relation to health care trends, leadership skills, management theories and styles, food service manager responsibilities, and laws which pertain to nutrition service operations. Prerequisites: A grade of C or better in [(MAT055 and MAT056 and MAT057) or MAT090 or MAT091 or MAT092] or satisfactory mathematics placement.

Division: Health Science and Public Service

FON210 / Sports Nutrition and Supplements for Physical Activity**3 Credits / 3.0 Periods for Lecture**

Principles of nutrition applied to fitness, exercise, and sports. Dietary fundamentals as applied to body fuels, hydration, and other unique needs for exercise and sports. Includes dietary guidelines for weight or endurance training, glycogen loading, the pre-game meal, and glycogen recovery. Emphasis on maximizing fitness, performance, and safety. Discussion of supplements and their effects on metabolic enhancement. Discussion of anabolic, catabolic, and energy-producing agents. Addresses current supplements on the market. Prerequisites: A grade of C or better in FON100 or FON241.

Division: Health Science and Public Service

FON225 / Research in Complementary and Alternative Nutrition Therapies**3 Credits / 3.0 Periods for Lecture**

Introduction to basic research methods and statistics as applied to complementary and alternative nutrition therapies. Emphasis on the analysis and interpretation of health-related research. Prerequisites: A grade of C or better in MAT092 or higher, or satisfactory score on district placement exam.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Health Science and Public Service

FON241 / Principles of Human Nutrition**3 Credits / 3.0 Periods for Lecture**

Scientific principles of human nutrition. Emphasis on scientific literacy and the study of nutrients for disease prevention. Includes micro and macro nutrients, human nutrient metabolism and nutrition's role in the health of the human body throughout the life cycle. Addresses nutrition principles for prevention of nutrition-related health conditions.

Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (General) - [SG] in combination with: FON241LL

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Health Science and Public Service

FON241LL / Principles of Human Nutrition Laboratory**1 Credit / 3.0 Periods for Laboratory**

Self-evaluative laboratory experience to complement FON241, Principles of Human Nutrition using anthropometric, biochemical, clinical, dietary analysis, and ecological/economical assessments. Includes the use of qualitative and quantitative methodology to determine nutritional status and evaluate methodological applications. Prerequisites: A grade of C or better in FON241 or Corequisites: FON241. Course Notes: General Education Designation: Natural Sciences (General) - [SG] in combination with: FON241

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Health Science and Public Service

FON242 / Introduction to Medical Nutrition Therapy**3 Credits / 3.0 Periods for Lecture**

Introduction to fundamental principles of medical nutrition therapy. Introduces the study of nutritional therapy of disease and evidence-based practice in prevention and nutritional management of diseases. Nutrition care planning for chronic diseases is taught via a variety of methods including case studies. This course applies foundational skills in the application of the Nutrition Care Process (NCP) for diet therapy implementation and documentation. Includes strategies to promote dietary adherence and the development of educational programs for a diverse adult population. Prerequisites: A grade of C or better in BIO160 and FON241.

Division: Health Science and Public Service

FON244AA / Food Service Management Practicum**2 Credits / 2.0 Periods for Lecture**

Classroom preparation and training, under the instruction and supervision of a registered dietitian. Application of principles, knowledge, and skills required in the delivery of nutrition services for food service management including food service operations, quantity food production, procurement, organizing and management principles, facility design and equipment, financial management, food safety and sanitation, menu planning, and marketing. Prerequisites: A grade of C or better in (FON104, FON125, FON142AB, FON207, and FON242) and permission of Program Director. Corequisites: FON244AB. Course Notes: Students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.

Division: Health Science and Public Service

FON244AB / Food Service Management Practicum Laboratory**2.5 Credits / 10.0 Periods for Laboratory**

Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required in the delivery of nutrition services for food service management including food service operations, quantity food production, procurement, organizing and management principles, facility design and equipment, financial management, food safety and sanitation, menu planning, and marketing. Prerequisites: A grade of C or better in (FON104, FON125, FON142AB, FON207, and FON242) and permission of Program Director. Corequisites: FON244AA. Course Notes: Students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.

Division: Health Science and Public Service

FON245AA / Medical Nutrition Therapy Practicum**2 Credits / 2.0 Periods for Lecture**

Classroom preparation and training, under the instruction and supervision of a registered dietitian. Understanding of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Comprehension of nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. Prerequisites: A grade of C or better in (FON125, FON242, and HCC145AA) and (MAT092, or equivalent, or satisfactory district placement) and permission of Program Director. Corequisites: FON245AB. Course Notes: Students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.

Division: Health Science and Public Service

FON245AB / Medical Nutrition Therapy Practicum Laboratory**2.5 Credits / 10.0 Periods for Laboratory**

Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge, and skills required for the delivery of medical nutrition therapy. Perform nutritional screening, assessment, monitoring, and evaluation for common and complex medical conditions, medical documentation, patient interviewing and counseling, and education in health promotion and disease prevention. Prerequisites: A grade of C or better in (FON125, FON242, and HCC145AA) and (MAT092, or equivalent, or satisfactory district placement) and permission of Program Director. Corequisites: FON245AA. Course Notes: Students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.

Division: Health Science and Public Service

FON246AA / Community Nutrition Practicum**2 Credits / 2.0 Periods for Lecture**

Classroom preparation and training, under the instruction of a registered dietitian. Understanding of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes knowledge and understanding of nutrition intervention and wellness promotion for individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds. Prerequisites: A grade of C or better in (FON125 and FON242) and permission of Program Director. Corequisites: FON246AB. Course Notes: Students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.

Division: Health Science and Public Service

FON246AB / Community Nutrition Practicum Laboratory**2 Credits / 10.0 Periods for Laboratory**

Practicum experience under the supervision of a registered dietitian. Application of principles, knowledge and skills required in the delivery of nutrition services in community-based agencies, outpatient health care settings, and social service agencies. Includes nutrition intervention and wellness promotion for individuals and groups across the lifespan, i.e. infants through geriatrics with a diversity of cultural, religious and social backgrounds. Prerequisites: A grade of C or better in (FON125 and FON242) and permission of Program Director. Corequisites: FON246AA. Course Notes: Students must be in compliance with the Maricopa Community Colleges Allied Health Program Student Policies.

Division: Health Science and Public Service

FON247 / Weight Management Science**3 Credits / 3.0 Periods for Lecture**

The comprehensive study of obesity as a disease of modern society due to multiple determinants. Use of evidence-based data and methods to assess and manage weight in various settings. Use of client-centered counseling strategies, including behavior change theories. Focus on discovering successful healthful long-term weight management strategies. Prerequisites: A grade of C or better in FON100 or FON241 or permission of Instructor.

Division: Health Science and Public Service

General Business (GBS)

GBS109 / Introduction to Esports Management**3 Credits / 3.0 Periods for Lecture**

Introduction to Esports will introduce the business, economics, operations and marketing of the Esports industry. Historical and cultural implications will be examined from the early days of competitive video gaming, to today's billion dollar industry. Global awareness and diverse cultural viewpoints and trends will be studied as they relate to the Esports industry. This course will introduce students to the numerous business opportunities to work and grow in the dynamic Esports industry. Prerequisites: None.

Division: Business and Computing Studies

GBS110 / Human Relations in Business and Industry**3 Credits / 3.0 Periods for Lecture**

Exploration of fundamental theories and concepts of human relations in business and industry. Particular emphasis is placed on developing effective interpersonal relationships and leadership skills within an organization. Prerequisites: None.

Division: Business and Computing Studies

GBS120 / Workplace Communication Skills**3 Credits / 3.0 Periods for Lecture & Lab**

Reviews planning, organization, development, and evaluation of written and oral communication in business settings, including informative and persuasive messages. Prerequisites: None.

Division: Business and Computing Studies

GBS131 / Business Calculations**3 Credits / 3.0 Periods for Lecture**

Review of basic arithmetic and application of mathematics to business problems, includes percentage, interest, discount, and markups.

Prerequisites: None.

Division: Business and Computing Studies

GBS132 / Personal and Family Financial Security**3 Credits / 3.0 Periods for Lecture**

Principles and practices of personal and family financial planning, includes savings, budgeting, credit, buying versus renting, and general principles of consumerism. Prerequisites: None.

Division: Business and Computing Studies

GBS151 / Introduction to Business**3 Credits / 3.0 Periods for Lecture**

Characteristics and activities of current local, national, and international business. An overview of economics, marketing, management and finance. Prerequisites: None.

Division: Business and Computing Studies

GBS205 / Legal, Ethical, and Regulatory Issues in Business**3 Credits / 3.0 Periods for Lecture**

Legal theories, ethical issues and regulatory climate affecting business policies and decisions. Prerequisites: None.

Division: Business and Computing Studies

GBS206 / Business Law (UCC)**3 Credits / 3.0 Periods for Lecture**

Legal and ethical aspects of contracts, sales, commercial paper, secured transactions, documents of title, letter of credit, bank deposits, and collections. Prerequisites: None.

Division: Business and Computing Studies

GBS207 / Business Law (General Corporate)**3 Credits / 3.0 Periods for Lecture**

Legal and ethical aspects of agency, partnerships, corporations, bankruptcy, antitrust, securities, and other regulations of business. Prerequisites: None.

Division: Business and Computing Studies

GBS211 / Legal, Ethical and Regulatory Issues of the Internet Studies**3 Credits / 4.0 Periods for Lecture & Lab**

Legal, ethical and regulatory issues of the Internet environment, including personal, commercial and business electronic transactions in cyberspace. Prerequisites: None.

Division: Business and Computing Studies

GBS220 / Quantitative Methods in Business**3 Credits / 3.0 Periods for Lecture**

Business applications of quantitative optimization methods in operations management decisions. Prerequisites: (A grade of C or better in MAT150 or MAT151 or MAT152) or satisfactory District math placement.

Division: Business and Computing Studies

GBS221 / Business Statistics

3 Credits / 3.0 Periods for Lecture

Business applications of descriptive and inferential statistics, measurement of relationships, and statistical process management. Includes the use of spreadsheet software for business statistical analysis. Prerequisites: A grade of C or better in GBS220 or MAT217 or MAT218.



SUN# BUS 2201

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Business and Computing Studies

GBS233 / Business Communication

3 Credits / 3.0 Periods for Lecture

Internal and external business communications, including verbal and nonverbal techniques. Prerequisites: ENG101 or ENG107 with grade of "C" or better, or permission of Department or Division.

Fulfills: Literacy & Critical Inquiry [L], Literacy & Critical Inquiry [L]-in combo

Division: Business and Computing Studies



GBS261 / Investments I

3 Credits / 3.0 Periods for Lecture

Evaluation of various investment forms including study of inflation, taxation, government securities, stocks and bonds, real estate and retirement plans. Securities industry knowledge and skills for individuals to prepare for careers in Financial Services. Includes capital markets, types of products and their risks, trading, customer accounts, prohibited activities, and regulatory agencies and their functions. Helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for entry-level positions in the security industry. Prerequisites: None. Corequisites: Concurrent enrollment in GBS261LL recommended but not required. Course Notes: Students interested in taking the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination should also enroll in the GBS261LL Securities Industry Essentials (SIE) Exam Prep course.

Division: Business and Computing Studies

GBS261LL / Securities Industry Essentials (SIE) Exam Prep

1 Credit / 1.0 Periods for Lecture & Lab

Helps to prepare students for the Financial Industry Regulatory Authority (FINRA) Securities Industry Essentials (SIE) Examination required for prospective securities industry professionals. Focuses on reviewing key concepts, practicing skills, and preparing to successfully demonstrate existing knowledge on the SIE certification exam. The course is designed to provide an overview of exam topics and study and test-taking strategies. It also will include structured study time, group discussions, and the use of practice exams to assess test readiness. Prerequisites: None. Corequisites: Concurrent enrollment in GBS261 recommended but not required. Course Notes: GBS261 is recommended for students who are not already employed in the financial services industry and need more in-depth content related to the SIE exam.

Division: Business and Computing Studies

Geology (GLG)

GLG101 / Introduction to Geology I - Physical Lecture

3 Credits / 3.0 Periods for Lecture

Introduction to Earth's materials, surface and internal geologic processes, plate tectonics and geologic time. Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GLG103. Arizona Shared Unique Number SUN#: GLG 1101. Students may receive credit for only one of the following: GLG101 or GLG101IN.



SUN# GLG 1101

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering



GLG101IN / Introduction to Geology I - Physical

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Introduction to Earth's materials, surface and internal geologic processes, plate tectonics and geologic time. Includes practical experience in rock and mineral identification, topographic maps, and applied problems in geology. Prerequisites: None. Course Notes: Enrollment in both a GLG101IN lecture section and a GLG101IN laboratory section is required. Students may receive credit for only one of the following: GLG101 and GLG103 or GLG101IN.



SUN# GLG 1101

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GLG102 / Introduction to Geology II - Historical Lecture

3 Credits / 3.0 Periods for Lecture

The origin and history of the Earth, its dynamic geographic and climatic changes. Evolution and sequence of life recorded in the fossil record; tectonic evolution of major continents through time. Prerequisites: None. Course Notes: General Education Designation: Historical Awareness - [H]. General Education Designation: Natural Sciences (General) - [SG] in combination with: GLG104. Students may receive credit for only one of the following: GLG102 or GLG102IN.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Physical Sciences and Engineering

GLG102IN / Introduction to Geology II - Historical**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

The origin and history of the Earth, its dynamic geographic and climatic changes. Evolution and sequence of life recorded in the fossil record; tectonic evolution of major continents through time. Prerequisites: None. Course Notes: Enrollment in both a GLG102IN lecture section and a GLG102IN laboratory section is required. Students may receive credit for only one of the following: GLG102 and GLG104 or GLG102IN.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Natural Sciences General [SG]; Natural Sciences General [SG]-in combo
Division: Physical Sciences and Engineering

GLG103 / Introduction to Geology I - Physical Lab**1 Credit / 3.0 Periods for Laboratory**

Includes practical experience in rock and mineral identification, topographic maps, and applied problems in geology. Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GLG101. Arizona Shared Unique Number SUN#: GLG 1101. May accompany GLG101. Students may receive credit for only one of the following: GLG103 or GLG101IN.



SUN# GLG 1101

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

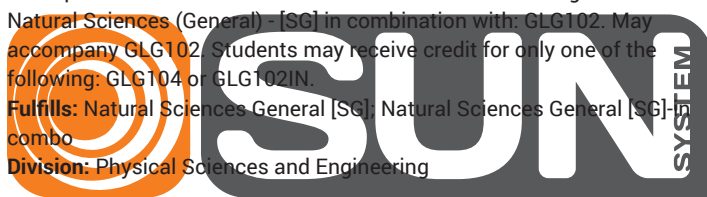
Division: Physical Sciences and Engineering

GLG104 / Introduction to Geology II - Historical Lab**1 Credit / 3.0 Periods for Laboratory**

The study of minerals, rocks, fossils, geologic maps and structures. Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (General) - [SG] in combination with: GLG102. May accompany GLG102. Students may receive credit for only one of the following: GLG104 or GLG102IN.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Physical Sciences and Engineering

**GLG105 / Introduction to Planetary Science****4 Credits / 6.0 Periods for Lecture & Lab**

A survey of solar system objects and their geologic evolution, surfaces, interiors, and atmospheres, and the methods used to study them; weekly laboratory for data analysis and experiments; possible weekend field trip. Prerequisites: None.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Physical Sciences and Engineering

GLG106 / Life in the Universe**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Introduction to the search for life in the universe for the non-science major. Earth's location in space and time, nature of life, light and the spectrum, origin and history of the universe, origin of life on Earth and the possibility of life on other planets. Prerequisites: A grade of C or better in MAT090 or MAT091 or MAT092 or completion of higher level mathematics course, or satisfactory placement.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GLG110 / Geological Disasters and the Environment**3 Credits / 3.0 Periods for Lecture**

Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the earth. Includes geological processes and hazards such as earthquakes, volcanoes, floods and landslides. Examines environmental impact and use of mineral and energy resources. Prerequisites: None. Course Notes: General Education Designation: Global Awareness - [G]. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with GLG111. Students may receive credit for only one of the following: GLG110 or GLG110IN.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GLG110IN / Geological Disasters and the Environment**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Acquaints students with the use and importance of geological studies as they apply to the interactions between people and the Earth. Includes geological processes and hazards such as earthquakes, volcanoes, floods and landslides. Examines environmental impact and use of mineral and energy resources. Prerequisites: None. Course Notes: Enrollment in both a GLG110IN lecture section and a GLG110IN laboratory section is required. Students may receive credit for only one of the following: GLG110 and GLG111 or GLG110IN.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GLG111 / Geological Disasters and the Environment Lab**1 Credit / 3.0 Periods for Laboratory**

Introduction to geological processes and concepts. Application of basic geologic knowledge to evaluate, interpret and propose solutions for a variety of current and past geology-related environmental disasters and hazards. Prerequisites: None. Course Notes: General Education Designation: Global Awareness - [G] in combination with GLG110. General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with GLG110. May accompany GLG110. Students may receive credit for only one of the following: GLG111 or GLG110IN.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Physical Sciences and Engineering

GLG121 / Geology of the Grand Canyon**1 Credit / 2.0 Periods for Lecture & Lab**

Introduction to the physiography and geology of the Grand Canyon. Includes a hiking field trip to the Grand Canyon. Prerequisites: None. Course Notes: GLG103 suggested but not required.

Division: Physical Sciences and Engineering

GLG140 / Introduction to Oceanography**3 Credits / 3.0 Periods for Lecture**

Investigates the marine environment in terms of basic scientific concepts. Emphasizes the impact of ocean pollutants, climate fluctuations, and resources from the sea. Prerequisites: None.

Division: Physical Sciences and Engineering

GLG229AB / Field Studies for Educators**2 Credits / 10.0 Periods for Laboratory**

Field trips to selected geological areas in Arizona in order to collect and/or observe geological phenomena. Designed for pre-college teachers. Prerequisites: None.

Division: Physical Sciences and Engineering

GLG229AC / Field Studies for Educators**3 Credits / 15.0 Periods for Laboratory**

Field trips to selected geological areas in Arizona in order to collect and/or observe geological phenomena. Designed for pre-college teachers. Prerequisites: None.

Division: Physical Sciences and Engineering

GLG230AA / Field Geology of the Southwest**1 Credit / 5.0 Periods for Laboratory**

Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena. Prerequisites: None. GLG103 suggested but not required. Course Notes: GLG230AA may be repeated for a total of four (4) credit hours.

Division: Physical Sciences and Engineering

GLG230AB / Field Geology of the Southwest**2 Credits / 10.0 Periods for Laboratory**

Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena. Prerequisites: None. GLG103 suggested but not required. Course Notes: GLG230AB may be repeated for a total of eight (8) credit hours.

Division: Physical Sciences and Engineering

GLG230AC / Field Geology of the Southwest**3 Credits / 15.0 Periods for Laboratory**

Field trips to selected areas in the Southwest, such as Arizona, Utah, California, and Sonora to observe and interpret various geological features and phenomena. Prerequisites: None. GLG103 suggested but not required. Course Notes: GLG230AC may be repeated for a total of twelve (12) credit hours.

Division: Physical Sciences and Engineering

GLG231AA / Special Topics in Geology**0.5 Credits / 0.5 Periods for Lecture**

Exploration of important topics in geology. Specific topic varies. Prerequisites: None. Course Notes: GLG231AA may be repeated for a total of two (2) credit hours.

Division: Physical Sciences and Engineering

GLG231AB / Special Topics in Geology**1 Credit / 1.0 Periods for Lecture**

Exploration of important topics in geology. Specific topic varies. Prerequisites: None. Course Notes: GLG231AB may be repeated for a total of four (4) credit hours.

Division: Physical Sciences and Engineering

GLG231AC / Special Topics in Geology**2 Credits / 2.0 Periods for Lecture**

Exploration of important topics in geology. Specific topic varies. Prerequisites: None. Course Notes: GLG231AC may be repeated for a total of eight (8) credit hours.

Division: Physical Sciences and Engineering

GLG231AD / Special Topics in Geology**3 Credits / 3.0 Periods for Lecture**

Exploration of important topics in geology. Specific topic varies. Prerequisites: None. Course Notes: GLG231AD may be repeated for a total of twelve (12) credit hours.

Division: Physical Sciences and Engineering

GLG280 / Geology of Arizona Lecture**3 Credits / 3.0 Periods for Lecture**

Acquaints students with the physical and historical geology of Arizona, including the origin of present-day land forms and outstanding modern geologic features and processes now in operation. Prerequisites: None.

Division: Physical Sciences and Engineering

GLG281 / Geology of Arizona Lab**1 Credit / 3.0 Periods for Laboratory**

May accompany GLG280. Examples of specific geologic processes and local areas. May require field trips. Prerequisites: None.

Division: Physical Sciences and Engineering

GLG282AA / Volunteerism for Geology: A Service Learning Experience**1 Credit / 1.0 Periods for Laboratory**

Service-learning field experience within human service organizations, government offices, public schools, or hospitals. Prerequisites: Permission of Instructor. Course Notes: GLG282AA may be repeated for a total of six (6) GLG282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Standard grading available according to procedures outlined in catalog.

Division: Physical Sciences and Engineering

GLG298AA / Special Projects**1 Credit / 1.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites:

Permission of Program Director or Instructor.

Division: Physical Sciences and Engineering

German (GER)

GER101 / Elementary German I

4 Credits / 4.0 Periods for Lecture

Basic grammar, pronunciation and vocabulary of the German language. Includes the study of German culture, practice of listening, speaking, reading and writing skills. Prerequisites: None.



SUN# GER 1101

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

GER102 / Elementary German II

4 Credits / 4.0 Periods for Lecture

Continued study of grammar and vocabulary of the German language along with the study of German culture. Emphasis on German language skills. Prerequisites: A grade of C or better in GER101, or GER101AA, or permission of Department or Division. Completion of prerequisites within the last three years is required.



SUN# GER 1102

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies



GER201 / Intermediate German I**4 Credits / 4.0 Periods for Lecture**

Review of essential grammar of the German language and study of the German culture. Continued practice and development of reading, writing, and speaking skills. Prerequisites: A grade of C or better in GER102, or GER102AA, or two years of high school German, or permission of Department or Division. Completion of prerequisites within the last three years is required.



SUN# GER 2201

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

**GER202 / Intermediate German II****4 Credits / 4.0 Periods for Lecture**

Continued development of German language skills and continued study of the German culture.



SUN# GER 2202

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

Health Care Related (HCR)**HCR210 / Clinical Health Care Ethics****3 Credits / 3.0 Periods for Lecture**

An introduction to health care ethics with emphasis on analysis and ethical decision making at both the clinical and health policy levels for health care professionals. Theoretical foundation of bioethics reviewed within historical and contemporary contexts. Prerequisites: A grade of C or better in ENG102 or ENG108 or permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Nursing and Health Sciences

HCR220 / Introduction to Nursing and Health Care Systems**3 Credits / 3.0 Periods for Lecture**

Introduction to the social, political, and economic contexts of the nursing profession and health care systems in the United States. Prerequisites: A grade of C or better in ENG102 or ENG108 or permission of Instructor.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Nursing and Health Sciences

HCR230 / Culture And Health**3 Credits / 3.0 Periods for Lecture**

Relation between cultures of diverse groups and health/illness. Emphasis on cross-cultural communication, including awareness of own cultural influences and indigenous and complementary healing practices.

Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Global Awareness [G]; Global Awareness [G]-in combo

Division: Nursing and Health Sciences

HCR240 / Human Pathophysiology**4 Credits / 4.0 Periods for Lecture**

Chemical, biological, biochemical, and psychological processes as a foundation for the understanding of alterations in health. The structural and functional pathophysiology of alterations in health; selected therapeutics considered. Prerequisites: A grade of C or better in BIO202 or BIO205, or permission of Instructor.

Division: Nursing and Health Sciences

Health Core Curriculum (HCC)

HCC130 / Fundamentals in Health Care Delivery**3 Credits / 3.0 Periods for Lecture**

Overview of current and recent development of health care professions, including career and labor market information, health care delivery systems, third party payers, and facility ownership. Health organization structure, patient rights and quality care. Health care and life values. Definition and importance of values, ethics, and essential behaviors in the workplace. Worker rights and responsibilities. Healthful living practices to include nutrition, stress management and exercise. Occupational Safety and Health Administration (OSHA) standard precautions and facility safety. Use of principles of body mechanics in daily living activities. Basic communication skills which facilitate inter-professional teamwork in the health care setting. Focus on development of personal communication skills and an understanding of how effective communication skills promote teamwork. Focus on intercultural communication strategies.

Prerequisites: None.

Division: Nursing and Health Sciences

HCC145 / Medical Terminology for Health Care Professionals**3 Credits / 3.0 Periods for Lecture**

Medical terminology used in health care, with special care populations and in special services. Body systems approach to terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing terms using word parts. Medical abbreviations and symbols and term spelling. Prerequisites: None.

Division: Nursing and Health Sciences

HCC145AA / Medical Terminology for Health Care Professionals I**1 Credit / 1.0 Periods for Lecture**

Introduction to medical terms used in health care. Body systems approach to selected terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing selected terms using basic word parts. Selected medical abbreviations and symbols and term spelling. Prerequisites: None.

Division: Nursing and Health Sciences

HCC145AB / Medical Terminology for Health Care Professionals II**1 Credit / 1.0 Periods for Lecture**

Selected medical terms used in health care. Body systems approach to more detailed terms related to structures, functions, diseases, procedures, and diagnostic tests. Building and analyzing selected terms using standard word parts. Selected abbreviations and symbols and term spelling. Prerequisites: A grade of C or better in HCC145AA.

Division: Nursing and Health Sciences

Health Science (HES)

HES100 / Healthful Living**3 Credits / 3.0 Periods for Lecture**

Health and wellness and their application to an optimal life style.

Explores current topics of interest such as stress management, nutrition, fitness, and environmental health. Evaluates common risk factors associated with modern lifestyles. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Health Science and Public Service

HES106 / Cardiopulmonary Resuscitation (CPR)/Automated External Defibrillator (AED)**0.5 Credits / 0.5 Periods for Lecture**

Basic overview of Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED). Covers choking procedures and the importance, guidelines, and techniques for performing CPR and utilizing an AED. Prerequisites: None.

Division: Health Science and Public Service

HES154 / First Aid/Cardiopulmonary Resuscitation**3 Credits / 3.0 Periods for Lecture**

Cardiopulmonary Resuscitation (CPR) and first aid for the adult, child and infant patients includes Automated External Defibrillator (AED), rescue breathing, obstructed airway, and other first aid procedures. Designed to train citizen responders in skills and procedures required during emergency situation. Prerequisites: None.

Division: Health Science and Public Service

HES210 / Cultural Aspects of Health and Illness**3 Credits / 3.0 Periods for Lecture**

Examines how culture influences health and illness, health care practices, barriers to health care, interactions with health care professionals, and health disparities in the U.S. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Global Awareness [G]; Global Awareness [G]-in combo

Division: Health Science and Public Service

HES271 / Sports Medicine Foundations**3 Credits / 3.0 Periods for Lecture**

Introduction to sports medicine knowledge, techniques, and careers.

Exploration of current trends in athletic injury prevention, management and rehabilitation including wound care, taping, wrapping, bracing, splinting and protective equipment. Prerequisites: None.

Division: Health Science and Public Service

HES275 / Rehabilitation and Therapeutic Interventions in Sports Medicine**3 Credits / 4.0 Periods for Lecture & Lab**

Exploration of current trends in the basic and advanced methodologies used in the rehabilitation of athletic injuries. Incorporates demonstrations of injury-appropriate strength and fitness training and therapeutic exercise techniques. Prerequisites: A grade of C or better in HES271.

Division: Health Science and Public Service

History (HIS)

HIS100 / History of Western Civilization to Middle Ages

3 Credits / 3.0 Periods for Lecture

Survey of the origin and development of Western civilization and its institutions from prehistory through the Ancient World and the Middle Ages. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS101 / History of Western Civilization Middle Ages to 1789

3 Credits / 3.0 Periods for Lecture

Survey of origin and development of Western civilization and its institutions from the Renaissance and Reformation through Age of Enlightenment. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS102 / History of Western Civilization 1789 to Present

3 Credits / 3.0 Periods for Lecture

Survey of origin and development of Western civilization and its institutions from French Revolution through the present. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS103 / United States History to 1865

3 Credits / 3.0 Periods for Lecture

The political, economic, and social development of the United States from the Pre-Columbian period through the end of the Civil War (1865).

Prerequisites: None.



SUN# HIS 1131

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies



HIS104 / United States History 1865 to Present**3 Credits / 3.0 Periods for Lecture**

The political, economic, and social development of United States from 1865 to the present time. Prerequisites: None.



SUN# HIS 1132

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

HIS105 / Arizona History**3 Credits / 3.0 Periods for Lecture**

The prehistoric and contemporary Native American experience, Spanish colonial times, the Mexican National period, the U.S. federal territorial years, and Arizona's political and economic development during the twentieth century. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

HIS106 / Southwest History**3 Credits / 3.0 Periods for Lecture**

Survey of Hispanic, Anglo, African-American and Native cultures of the peoples who have settled the American Southwest. Emphasis on cattle, mining, fur trade and transportation industries and role development of the region. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

HIS108 / United States History 1945 to the Present**3 Credits / 3.0 Periods for Lecture**

Survey of American history from 1945 to the present. Focuses on the political, social, economic and cultural history of the United States from the end of World War II to the present time. Includes domestic developments and foreign policy. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

HIS109 / Mexican-American History and Culture**3 Credits / 3.0 Periods for Lecture**

Examination of origins and development of Spanish-American and Mexican- American peoples and their contribution to culture, history and development of United States. Emphasis on Mexican-American War and its impact on educational, social, and economic conditions of the Mexican-Americans of the southwest. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

HIS110 / World History to 1500**3 Credits / 3.0 Periods for Lecture**

Survey of the economic, social, cultural, and political elements of world history from the beginning of human civilization to 1500. Prerequisites: None.



SUN#: HIS 1100

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies



HIS111 / World History 1500 to the Present**3 Credits / 3.0 Periods for Lecture**

Survey of the economic, social, cultural, and political elements of world history from 1500 to the present. Prerequisites: None.



SUN#: HIS 1111

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS113 / History of Eastern Civilizations to 1850**3 Credits / 3.0 Periods for Lecture**

An examination of the characteristics and development of civilizations, religions and philosophies of the Middle East, India, Far East, and Southeast Asia. From ancient times to the mid-nineteenth century.

Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS114 / History of Eastern Civilizations 1850 to Present**3 Credits / 3.0 Periods for Lecture**

Examination of characteristics and development of civilizations of Middle East, India, Far East, and Southeast Asia, from mid-nineteenth century to present. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS140 / American Indian History**3 Credits / 3.0 Periods for Lecture**

Survey of American Indian history with emphasis on the last 200 years including developments in the 20th century. Focuses on selected groups such as the Cherokee, Iroquois Confederation, Navajo, Sioux and Indians of the Southwest in relation to cultural, economic, political and social continuity and changes. Topics include development and influence of federal policies, past and present issues confronting Native Americans and how Native American individuals and communities maintain their identities as they confront social changes. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS145 / History of Mexico**3 Credits / 3.0 Periods for Lecture**

Survey of the political, economic, and social forces which have shaped the development of Mexico from pre-Columbian times to the present.

Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS170 / American Indian History of the Southwest**3 Credits / 3.0 Periods for Lecture**

Covers history of Indian peoples in the southwestern United States from pre-Columbian era to the present. Includes historical events, the development and implementation of Spanish-Mexican and United States' policies and their impact on Indian peoples in these areas, and current issues of importance to Indian peoples. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS173 / United States Military History**3 Credits / 3.0 Periods for Lecture**

Focuses on the impact of the United States military in both peace and war on American society, politics and foreign relations from the colonial period to the present. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS190 / Environmental History**3 Credits / 3.0 Periods for Lecture**

Survey of the environmental history of the world from hunter-gatherer societies to the present including but not limited to social groups, natural resources, and physical environments and impacts on the Earth. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS201 / History of Women in America**3 Credits / 3.0 Periods for Lecture**

Introduction to women's history from the colonial period to the present.

Deals chronologically with changes and developments which have influenced the lives of women. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS203 / African-American History to 1865**3 Credits / 3.0 Periods for Lecture**

History and cultural heritage of African-Americans from their beginnings in Ancient Africa through the experience of chattel slavery in the Americas to their eventual emancipation and participation in the American Civil War. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS204 / African-American History 1865 to Present**3 Credits / 3.0 Periods for Lecture**

Multifaceted experiences of African-American people from the post-Civil War period (1865) to the present, including the collective struggle for freedom, equality, and self-determination in the United States. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS209 / The Chicano in Twentieth Century America**3 Credits / 3.0 Periods for Lecture**

Analysis of the twentieth century Chicano experience. Historical perspective of the emergence of Chicanos as an influential minority in the United States. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS212 / History of Religion**3 Credits / 3.0 Periods for Lecture**

Survey of the historical contexts in which the major religions have emerged and evolved. Focuses on social and political events throughout history and their impact on religious beliefs and practices. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS240 / History of Islamic Civilization from the 6th Century to 1800**3 Credits / 3.0 Periods for Lecture**

Overview of the historical, economic, political, and cultural conditions that brought about the various transformations within the Arab/Islamic world; examination of the impact and interaction of the Islamic civilization with other peoples. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS241 / Latin American Civilization in the Colonial Period**3 Credits / 3.0 Periods for Lecture**

A survey of the political, economic, and social forces which molded Latin American civilization in the Colonial Period. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS242 / Latin American Civilization in the Post-Colonial Period**3 Credits / 3.0 Periods for Lecture**

A survey of the political, economic, and social forces which molded Latin American civilization in the period of the development of Republics. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS251 / History of England to 1700**3 Credits / 3.0 Periods for Lecture**

History of England to 1660. Analysis of the major political, cultural, social, and intellectual, and social factors in English historical development from its earliest times till 1660. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS252 / History of England 1700 to Present**3 Credits / 3.0 Periods for Lecture**

Analysis of the major political, cultural, social, and intellectual factors in English historical development from 1650 to present. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS273 / US Experience in Vietnam 1945 - 1975**3 Credits / 3.0 Periods for Lecture**

Survey of the US experience in Vietnam, 1945-1975, in view of political, economic, and social forces of the Cold War. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS275 / Russia: Kievan Rus to the New Cold War**3 Credits / 3.0 Periods for Lecture**

Survey of the principal political, military, economic, social and cultural development in Russia from Ivan the Great to the present, including a focus on the period when Russia was part of the Soviet Union, 1917-1991. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

HIS277 / The Modern Middle East**3 Credits / 3.0 Periods for Lecture**

Survey of the political, religious and economic development of the Middle East since 1500. Emphasis on the decline of the Moslem empire(s), the resurgence of contemporary Pan- Arabism, the Palestinian-Israeli question, jihadism, fundamentalist terrorism, the Taliban and Al Qaeda, and the impact of oil production on the region and the rest of the world. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

Honors (HON)

HON190 / The Honors Experience**3 Credits / 3.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society and overall human experience. Critical inquiry of specific themes from a wide variety of academic viewpoints. Comprehensive and interdisciplinary review of global, historical, and cultural trends, supplemented by readings and discussion. Varied content due to changing honors forum themes and issues. Prerequisites: Admission to the college honors program or permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Social & Behavioral Sciences

HON201 / Leadership Development: Historical and Contemporary Perspectives**3 Credits / 3.0 Periods for Lecture**

Interdisciplinary study of leadership focusing on development of leadership skills. Prerequisites: Admission to the college honors program or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

Humanities (HUM)

HUM100 / Great Ideas Symposium**1 Credit / 1.0 Periods for Lecture**

Interrelationships among cultures and behavior in the modern world. Focuses on selected themes and topics. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

HUM101 / General Humanities**3 Credits / 3.0 Periods for Lecture**

A general humanities course concentrating on three great ages of outstanding human achievement: The Golden Age of Greece, the Renaissance and the 20th Century. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM107 / Humanities Through the Arts**3 Credits / 3.0 Periods for Lecture**

Introduction to humanities including film, drama, music, literature, painting, sculpture, and architecture. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM108 / Contemporary Humanities**3 Credits / 3.0 Periods for Lecture**

An exploration of human expression in contemporary arts and sciences. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM120 / Cultural Viewpoints in the Arts**3 Credits / 3.0 Periods for Lecture**

Introduction to the influence of culture and ethnicity on the artist, including factors such as race, religion, gender, class, sexual preference, age, and region. Lecture and discussion on various art forms, including literature, visual arts, music, dance, film, and theater. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

HUM190AA / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AB / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AC / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AD / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AE / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AF / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AG / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AH / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM190AI / Honors Forum**1 Credit / 1.0 Periods for Lecture**

Interdisciplinary studies of selected issues confronting the individual and society. Formal lectures followed by informal discussions with outstanding scholars and social leaders. Supplemented by readings and pre- and post-forum discussion and critique. Varied content from module to module due to changing forum themes and issues. Prerequisites: Admission to the College Honors Program or Permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM201 / Humanities: Universal Themes**3 Credits / 3.0 Periods for Lecture**

Study of worldviews in a variety of historical and contemporary world cultures, including analysis of origin and creation myths, artistic expression, spirituality, and the natural environment. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Composition, Creative Writing, and Literature

HUM202 / Humanities: Universal Themes**3 Credits / 3.0 Periods for Lecture**

The hero/heroine; fool, the social world, and the future as themes in the humanities. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM205 / Introduction to Cinema**3 Credits / 3.0 Periods for Lecture**

Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM206 / Introduction to Television Arts**3 Credits / 3.0 Periods for Lecture**

History and development of electronic media and its impact on popular arts. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM209 / Women and Films**3 Credits / 3.0 Periods for Lecture**

Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM210 / Contemporary Cinema**3 Credits / 3.0 Periods for Lecture**

A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM211AA / Foreign Films: Classics**3 Credits / 3.0 Periods for Lecture**

Analysis of contributions of foreign directors to the art and history of motion pictures through a study of selected films. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM211AE / Foreign Films: Italian**3 Credits / 3.0 Periods for Lecture**

Analysis of contributions of Italian directors to the art and history of motion pictures through a study of selected films. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

HUM212 / Documentary Film**3 Credits / 3.0 Periods for Lecture**

Survey of documentary or non-fiction film. Emphasis on the interplay between form, subject, cultural context and filmmaker perspective.

Focuses on primary types of documentary film, such as poetic, observational, expository reflexive, participative, and performative.

Analyzes what distinguishes documentary film from fiction film.

Prerequisites: A grade of C or better in ENG101 or ENG107.

Division: Composition, Creative Writing, and Literature

HUM213 / Hispanic Film**3 Credits / 3.0 Periods for Lecture**

Analysis of Hispanic film as art form and as social commentary.

Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo;

Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM214 / African-Americans in Film**3 Credits / 3.0 Periods for Lecture**

Study of films featuring African-American performers and directors from the Silent Era to the present. Emphasis on the historical and social elements of African Americans in film and basics of film analysis.

Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM215 / Film Comedy**3 Credits / 3.0 Periods for Lecture**

Explores the basics of humor in film by tracing its roots through a historical examination of a variety of arts, artists, and theorists. Focuses on films' unique contributions to the world of laughter. Investigates how comedy, and film comedy in particular, provides an essential and unifying force for culture and society. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM216 / The Films and Career of Alfred Hitchcock**3 Credits / 3.0 Periods for Lecture**

Focuses on the career, films, and cinematic and cultural influence of acclaimed director Alfred Hitchcock. Includes the director's cinematic innovations, techniques, major films, and his influence on modern filmmakers. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM220 / History and Film**3 Credits / 3.0 Periods for Lecture**

Presents historically based films and analyzes their accuracy, filmmaking techniques, and their value as cinematic historical records of U.S. and global events. Prerequisites: A grade of C or better in ENG101 or ENG107.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM225 / Introduction to Popular Culture**3 Credits / 3.0 Periods for Lecture**

Introduction to major topics in the field of popular culture studies.

Includes basic theories, methods, and concepts used to analyze popular culture texts and practices. Prerequisites: A grade of C or better in ENG101 or ENG107.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

HUM235 / Disability Studies**3 Credits / 3.0 Periods for Lecture**

Considers representations of disability as artifacts of Western and non-Western cultures against changing backdrops in knowledge, ideas, beliefs, values, and practices. Works to build awareness, understanding, and empathy in regards to diverse forms of humanity and to de-stigmatize disease, illness, and impairment. Prerequisites: A grade of C or better in ENG101 and (RDG100, or RDG100LL, or RDG111, or RDG112, or RDG113, or eligibility for CRE101 as indicated by appropriate reading placement).

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

HUM245 / Introduction to Holocaust Studies**3 Credits / 3.0 Periods for Lecture**

Introduction to essential information about the Holocaust. Provides theological, social and political background to establish contexts of anti-Semitism, especially in 19th and 20th centuries, with particular attention to National Socialist ideologies. Ghetto and camp life, including resistance, are explored. Emphasis is on texts of the Holocaust, including historical documents, participant testimonies, fiction, creative non-fiction, and poetry, much of which involves theological and moral debate. Includes analysis of supplementary visual material and some performing arts. Prerequisites: None. CRE101 or equivalent as indicated by appropriate reading placement recommended but not required.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM250 / Ideas and Values in the Humanities: Early Civilizations to the Renaissance**3 Credits / 3.0 Periods for Lecture**

An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the early civilizations to the Renaissance, including Western and non-Western cultures. Prerequisites: A grade of C or better in ENG101.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

HUM251 / Ideas and Values in the Humanities: Renaissance to the Contemporary World**3 Credits / 3.0 Periods for Lecture**

An historical analysis of the interrelationships of art, architecture, literature, music, and philosophy from the Renaissance to modern period, including Western and non-Western cultures. Prerequisites: A grade of C or better in ENG101.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

HUM260 / Intercultural Perspectives**3 Credits / 3.0 Periods for Lecture**

Cultural, literary, and artistic expressions of Native, Hispanic, and African Americans. Includes traditional and modern work and contribution to American civilization. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM261 / Asian Ideas and Values**3 Credits / 3.0 Periods for Lecture**

An examination of Asian cultural traditions for their humanistic ideas and values: the arts, music, literature, religions, and philosophies of Asia, with emphasis on India and its sphere of influence in southeast Asia, and on China and its sphere of influence, particularly Japan. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Composition, Creative Writing, and Literature

HUM292 / The Art of Storytelling**3 Credits / 3.0 Periods for Lecture**

Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Composition, Creative Writing, and Literature

HUM295 / Topics in the Humanities**3 Credits / 3.0 Periods for Lecture**

Exploration of selected topic in the humanities. Focuses on a theme, concept, era, or genre. Analysis and interpretation of topic's representation, development, and significance in at least three different humanities areas and in a variety of world cultures. Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor. Course Notes: May be repeated for a total of nine (9) credit hours.

Division: Composition, Creative Writing, and Literature

Information Studies (IFS)

IFS110 / Critical Research for College Success**1 Credit / 1.0 Periods for Lecture**

Access, evaluate, and incorporate sources appropriately into academic projects. Prerequisites: None. Course Notes: IFS110 may be repeated for a total of four (4) credit hours.

Division: Language, Humanits, Learnng Centr&Informtn Studies

IFS201 / Information in a Post-Truth World**3 Credits / 3.0 Periods for Lecture**

Development of critical thinking skills in using information. Exploration of how information can be used as a tool or a weapon. Explanation of the role of information as a consumer and creator. Recognition of the impact of culture and worldview on how information is understood, created, and disseminated. Prerequisites: A grade of "C" or better in ENG101 or ENG107.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

IFS210 / Information Without Borders: Research in a Global Society**3 Credits / 3.0 Periods for Lecture**

A comparative study focused on access to digital information in a global environment. Explore the global culture developing around the Internet and the impact of local, national and global cultures as well as economic and social factors related to the flow of information in a global society. Examine emerging technologies to produce and distribute information across cultures in a global society in an ethical manner. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

IFS213 / Hacking and Open Source Culture**3 Credits / 3.0 Periods for Lecture**

Focus on the multi-dimensions of hacking and open source culture, including rule-breaking, innovation, and creative use of programming/technology. Social, economic, cultural, and political implications of hacking and technology, in historical and contemporary contexts will be addressed. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

Information Technology Security (ITS)

ITS110 / Information Security Fundamentals**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamental concepts of information technology security. Topics include authentication methods, access control, cryptography, Public Key Infrastructure (PKI), network attack and defense methods, hardening of operating systems and network devices, securing remote access and wireless technologies and securing infrastructures and topologies. Emphasis on hands-on labs in both the Windows and Linux environments. Builds on thorough understanding of Transmission Control Protocol/Internet Protocol (TCP/IP) and security concepts and Microsoft (MS) Windows and Linux Administration. Prerequisites: A grade of C or better in CIS126DL, or CIS126RH, or permission of Program Director. Corequisites: BPC270 or MST150++.

Division: Business and Computing Studies

ITS120 / Legal, Ethical and Regulatory Issues**3 Credits / 3.0 Periods for Lecture**

Exploration of legal and ethical issues unique to information security. Analysis of professional ethical codes and their application to information security practitioners. Federal and state laws as they relate to information security. Prerequisites: None.

Division: Business and Computing Studies

ITS240 / Ethical Hacking and Network Defense**3 Credits / 4.0 Periods for Lecture & Lab**

Preparation for the EC-Council Certified Ethical Hacking examination. In-depth exploration of how to effectively protect computer networks from risks ranging from malicious infiltration to cyber-warfare. Includes examination of ethical hacking, relevant tools and methodologies, and its importance to network security. Resources to identify new computer network vulnerabilities and counter security strategies will be discussed as well as an overview of relevant computer crime laws and penalties. Prerequisites: A grade of C or better in ITS110, or CNT205, or CIS270, or CIS271DB, or CIS272DB, or permission of Instructor.

Division: Business and Computing Studies

ITS291 / Computer Forensics Foundations**4 Credits / 5.0 Periods for Lecture & Lab**

Development of foundational computer forensic skills. Introduction to preserving, identifying, extracting, interpreting, and documenting computer data as part of a forensically sound analysis. Examination of the physical and logical structure of hard drives. Study of the logical structure of Windows-based file systems and common applications. Introduction to the logical structure of Unix/Linux-based file systems and common applications of commercial forensic tools. Prerequisites: A grade of C or better in BPC170 and ITS110 or permission of Instructor.

Division: Business and Computing Studies

ITS292 / Advanced Computer Forensics**4 Credits / 5.0 Periods for Lecture & Lab**

Advanced computer forensics analysis techniques with commercial tools. Introduction to open-source forensic tools. Emphasis on data recovery from complex applications and media types. Study of the logical structure of Unix/Linux-based file systems. Advanced search techniques. Analysis of unallocated space, compound files, and NTFS artifacts. Prerequisites: A grade of C or better in ITS291 or permission of Instructor.

Division: Business and Computing Studies

International Business (IBS)

IBS101 / Introduction to International Business**3 Credits / 3.0 Periods for Lecture**

A basic overview of international business to introduce students to international trade concepts. Focus of the course is on international business environment issues that influence global business practices, decisions and applications. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Business and Computing Studies

IBS109 / Cultural Dimension for International Trade**3 Credits / 3.0 Periods for Lecture**

The importance of cultural sensitivity in international business relations investigated by studying the impact of geography, history, religion, politics, customs and cross-cultural communications on society. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Business and Computing Studies

Journalism (JRN)

JRN133 / Development of Small Publications**3 Credits / 3.0 Periods for Lecture**

Design, plan and write newsletters, brochures, and advertisements. Desktop computer production and paste-up techniques. Prerequisites: None. Computer experience and BPC138AA suggested but not required.

Division: Composition, Creative Writing, and Literature

JRN201 / News Writing**3 Credits / 3.0 Periods for Lecture**

Writing and producing news for the media. Associated Press (AP) editing style, writing skills, and organizational structure for news. Prerequisites: A grade of C or better in ENG101 or ENG107.



SUN# JRN 2201

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

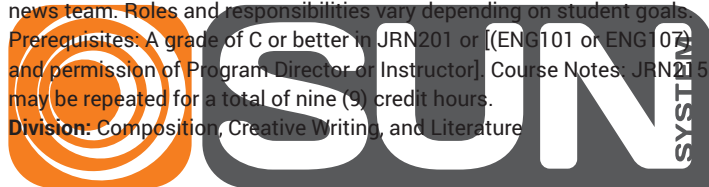
Division: Composition, Creative Writing, and Literature

JRN210 / News and Media Production**3 Credits / 5.0 Periods for Lecture & Lab**

Hands-on experience working in a college newsroom developing content as reporters, photographers, editors, and other roles on the student news team. Roles and responsibilities vary depending on student goals.

Prerequisites: A grade of C or better in JRN201 or [(ENG101 or ENG 107) and permission of Program Director or Instructor]. Course Notes: JRN210 may be repeated for a total of nine (9) credit hours.

Division: Composition, Creative Writing, and Literature



JRN234 / Feature Writing**3 Credits / 3.0 Periods for Lecture & Lab**

Emphasis on crafting stylized human interest stories for publications. Includes research, interviewing, writing techniques, editing and professional concerns. Includes best practices for writing features for traditional and digital media. Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Composition, Creative Writing, and Literature

Law Enforcement Training (LET)

LET173 / Introduction to Leadership in Public Safety**2 Credits / 2.0 Periods for Lecture**

Introduction to leadership in the field of public safety. Covers stages of adult human development, generational differences, and characteristics of effective leaders. Also includes characteristics of leaders, including values, ethics, attitudes, behavior, and response techniques in addition to identification of personal strengths and determination of a personal leadership style. Prerequisites: None.

Division: Health Science and Public Service

LET174 / Organizational Culture and Leadership**3 Credits / 3.0 Periods for Lecture**

Examination of organizational structure and its application to the field of public safety. Covers characteristics and principles of effective organizations, systems and process management, and phases of process building in addition to characteristics of a process enterprise. Also includes levels of leadership and characteristics, ethical considerations, restrictions, and best behaviors of each. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: LET173.

Division: Health Science and Public Service

LET175 / Public Safety Leadership Capstone**1 Credit / 3.0 Periods for Laboratory**

Completion and professional presentation of a capstone project such as a formal staff study or leadership portfolio in the field of public safety, including steps for problem identification, research, and analyzing and reporting of information. Prerequisites: A grade of C or better in LET174.

Division: Health Science and Public Service

Management (MGT)

MGT101 / Techniques of Supervision**3 Credits / 3.0 Periods for Lecture**

Overview of the foundations of supervision and how to get things done within an organization through other people. The functions of planning, organizing, staffing, motivating and controlling presented. Prerequisites: None.

Division: Business and Computing Studies

MGT126 / Customer Service Skills and Strategies**3 Credits / 3.0 Periods for Lecture & Lab**

Explores strategies to help improve job performance and develop a service-oriented philosophy. Uses practical training concepts and techniques to demonstrate how superior customer service can lead to competitive advantage and profitability in business. Focuses on both internal and external customers, interactions among people, processes, and systems within the organization and how to integrate these areas into a total quality delivery program. Prerequisites: None.

Division: Business and Computing Studies

MGT148 / Office Ethics and Culture**2 Credits / 2.0 Periods for Lecture**

Ethical issues and standards in the office; making ethical choices. Relationships and attitudes in the office. Office politics. Prerequisites: None.

Division: Business and Computing Studies

MGT175 / Business Organization and Management**3 Credits / 3.0 Periods for Lecture**

Covers basic principles of managing quality and performance in organizations. Covers management functions: planning, organizing, leading, and controlling. Emphasizes continual improvement, ethics, and social responsibility. Prerequisites: None.

Division: Business and Computing Studies

MGT180 / Retail Management**3 Credits / 3.0 Periods for Lecture**

The role of management in retailing and retail performance. Challenges and processes of retail management across various institutions.

Prerequisites: None.

Division: Business and Computing Studies

MGT229 / Management and Leadership I**3 Credits / 3.0 Periods for Lecture**

Covers management concepts and applications for business, industry, and government organizations. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Business and Computing Studies

MGT230 / Management and Leadership II**3 Credits / 3.0 Periods for Lecture**

Includes practical applications of activities, issues, and problems related to current managerial and supervisory skills and talents. Prerequisites: A grade of C or better in MGT229 or permission of Department or Division.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Business and Computing Studies

MGT251 / Human Relations in Business**3 Credits / 3.0 Periods for Lecture**

Analysis of motivation, leadership, communications, and other human factors. Cultural differences that may create conflict and affect morale individually and within organizations. Prerequisites: None. MGT101 or MGT175 or MGT229 suggested, but not required.

Division: Business and Computing Studies

MGT253 / Owning and Operating a Small Business**3 Credits / 3.0 Periods for Lecture**

Starting, organizing, and operating a small business, including location, finance management processes, advertisement and promotion, credit, inventory control and ethics. Prerequisites: None.

Division: Business and Computing Studies

MGT276 / Human Resources Management**3 Credits / 3.0 Periods for Lecture**

Human resource planning, staffing, training, compensating, and appraising employees in organizations. Prerequisites: None. MGT101 or MGT175 or MGT229 suggested, but not required. Course Notes: MGT101 or MGT175 or MGT229 suggested but not required.

Division: Business and Computing Studies

MGT286 / Human Resource Employment Management**3 Credits / 3.0 Periods for Lecture**

Techniques and methodology for coordinating and monitoring effective employment selection practices. Includes description of employment functions, staffing analysis, employment recruitment and advertising, applicant screening, interviewing and reference checking, employee selection and placement within a human resources division. Prerequisites: A grade of C or better in MGT276 or permission of Department or Division.

Division: Business and Computing Studies

Marketing (MKT)

MKT101 / Introduction to Public Relations**3 Credits / 3.0 Periods for Lecture**

Emphasizes public relations techniques used both within and outside the business organization, including operation of a PR counseling firm. Prerequisites: None.

Division: Business and Computing Studies

MKT110 / Marketing and Social Networking**3 Credits / 3.0 Periods for Lecture**

Theory and practice in the use of social media in marketing. Topics may include a history of social media, preparation for social marketing, the power of collective influence, and how to engage with social media. Reviews social mediums, social networks, platforms and other marketing tools used to create a social media campaigns. Prerequisites: None.

Division: Business and Computing Studies

MKT111 / Applied Marketing and Social Networking**3 Credits / 4.0 Periods for Lecture & Lab**

Examination of the strategic use of digital and social media marketing platforms and tools for global communication and networking, including analysis of various digital and social media platforms and tools for developing brands, creating professional networks and creating engaging content. Hands-on use of social media platforms and tools to conduct research, develop strategies for creating, integrating, and evaluating social media marketing campaigns, and development of metrics to measure effectiveness. Prerequisites: A grade of C or better in MKT110.

Division: Business and Computing Studies

MKT112 / Retail Customer Service**1 Credit / 1.0 Periods for Lecture**

Introduction to the field of retail sales. Emphasis on customer service and sales techniques. Prerequisites: None.

Division: Business and Computing Studies

MKT114 / Retail Inventory Control**1 Credit / 1.0 Periods for Lecture**

Retail inventory control procedures. Emphasis on the role of the professional sales associate within a retail company and in the handling of merchandise. Prerequisites: A grade of C or better in MKT112.

Division: Business and Computing Studies

MKT263 / Advertising Principles**3 Credits / 3.0 Periods for Lecture**

Introduces the advertising function within business, including media study, creative strategies, and advertising campaigns. Prerequisites: None. MKT271 suggested, but not required.

Division: Business and Computing Studies

MKT267 / Principles of Sales**3 Credits / 3.0 Periods for Lecture**

Analyzes and applies the steps and techniques used in personal selling. Highlights the role of the professional sales representative and his/her functions as they relate to the company's mission and customer expectations. Prerequisites: None.

Division: Business and Computing Studies

MKT268 / Merchandising**3 Credits / 3.0 Periods for Lecture**

Surveys structure and operation of retail organizations. Emphasizes merchandising to include price, location, time promotion and quantity. Prerequisites: None. MKT271 suggested but not required.

Division: Business and Computing Studies

MKT271 / Principles of Marketing**3 Credits / 3.0 Periods for Lecture**

An analysis of the marketing process and environment with regard to the product, pricing, distribution, and communication in order to satisfy buyer needs. Prerequisites: None.

Division: Business and Computing Studies

MKT280AB / Marketing Internship**2 Credits / 2.0 Periods for Lecture & Lab**

Marketing work experience in a business or industry. 80 hours of designated work per credit. Prerequisites: Permission of Department or Division.

Division: Business and Computing Studies

MKT298AB / Special Projects**2 Credits / 2.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

Division: Business and Computing Studies

Mass Communications (MCO)

MCO120 / Media and Society**3 Credits / 3.0 Periods for Lecture**

Study of historical and contemporary roles of media and its pervasiveness in society as it relates to culture, politics and education. Prerequisites: Eligibility for ENG101 or ENG107 or permission of Instructor.

Division: Communication & Fine Arts

MCO220 / Cultural Diversity and the Media**3 Credits / 3.0 Periods for Lecture**

Images of the diverse cultures and gender issues within the U.S. media. Exploration of racial and gender roles which shape the media as well as media roles which influence U.S. race relations and racial change. Roles, contributions, and challenges of the minority press in the United States. Prerequisites: A grade of C or better in ENG101 or ENG107.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Communication & Fine Arts

Mathematics (MAT)

MAT051 / Number Sense I

1 Credit / 1.0 Periods for Lecture

Primary emphasis on conceptual understanding of whole numbers, integers and mathematical operations. Use systems of measure and Pythagorean Theorem. Focus on mathematical language, connections, patterns and reasoning. Prerequisites: None.

Division: Mathematics

MAT052 / Number Sense II

1 Credit / 1.0 Periods for Lecture

Primary emphasis on conceptual understanding of decimals and fractions, and decimal and fraction addition and subtraction. Solving problems involving decimals and fractions. Focus on mathematical language, connections, patterns and reasoning. Prerequisites: A grade of C or better in MAT051, or an appropriate district placement.

Division: Mathematics

MAT053 / Multiplicative and Proportional Reasoning

1 Credit / 1.0 Periods for Lecture

Primary emphasis on conceptual understanding of decimals and fractions, and decimal and fraction multiplication and division. Solving problems involving decimals, fractions, and percentages. Focus on additive and multiplicative reasoning including proportionality and similarity. Prerequisites: A grade of C or better in each of the following courses: (MAT051 and MAT052), or an appropriate district placement.

Division: Mathematics

MAT054 / Geometry

1 Credit / 1.0 Periods for Lecture

Primary emphasis on conceptual understanding of and solving problems involving angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Prerequisites: A grade of "C" or better, or satisfactory Math Diagnostic Assessment Score for MAT051, MAT052 and MAT053. Corequisites: MAT055, or MAT056, or MAT057.

Division: Mathematics

MAT055 / Algebraic Structures

1 Credit / 1.0 Periods for Lecture

Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations.

Prerequisites: A grade of C or better in each of the following courses: (MAT051, MAT052, and MAT053), or a grade of C or better for MAT08+, or an appropriate district placement.

Division: Mathematics

MAT056 / Functions I

1 Credit / 1.0 Periods for Lecture

Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Prerequisites: A grade of C or better in each of the following courses: (MAT051, MAT052, MAT053, and MAT055), OR a grade of C or better in (MAT055 and MAT08+), OR an appropriate district placement.

Division: Mathematics

MAT057 / Functions II

1 Credit / 1.0 Periods for Lecture

Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Prerequisites: A grade of C or better in each of the following courses: (MAT051, MAT052, MAT053, MAT055, and MAT056), OR a grade of C or better in (MAT055, MAT056, and MAT08+), OR an appropriate district placement.

Division: Mathematics

MAT081 / Basic Arithmetic

4 Credits / 4.0 Periods for Lecture

Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning.

Prerequisites: None. Course Notes: Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053), OR MAT081, OR MAT082, OR MAT085.

Division: Mathematics

MAT082 / Basic Arithmetic

3 Credits / 3.0 Periods for Lecture

Primary emphasis on conceptual understanding of and solving problems involving whole numbers, integers, mathematical operations, decimals, decimal operations, fractions, percentages, angles and geometric figures. Use of systems of measure, similarity, proportionality and the Pythagorean theorem. Focus on mathematical language, connections, patterns and reasoning, and additive and multiplicative reasoning.

Prerequisites: None. Course Notes: Student may receive credit for only one of the following: (MAT051 and MAT052 and MAT053), OR MAT081, OR MAT082, OR MAT085.

Division: Mathematics

MAT091 / Introductory Algebra

4 Credits / 4.0 Periods for Lecture

Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Prerequisites: A grade of C or better in each of the following courses: (MAT051, MAT052, and MAT053), OR a grade of C or better in MAT08+, OR an appropriate district placement. Course Notes: Student may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096.

Division: Mathematics

MAT092 / Introductory Algebra**3 Credits / 3.0 Periods for Lecture**

Emphasis on meanings related to variable, equality, inequality, equivalence. The use of additive and multiplicative reasoning in solving linear equations and inequalities in one variable. Validation of solution(s) through a reasonable mathematical defense. Transfer and apply knowledge through a process of sense making and reasonableness in mathematical problems and practical application situations. Recognize patterns and organize data to represent situations where output is related to input. Understand the concept of function and be able to represent functions in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Read, represent, and interpret linear function relationships numerically, analytically, graphically and verbally and connect the different representations. Model and solve real world problems involving constant rate of change. Prerequisites: A grade of C or better in each of the following courses: (MAT051, MAT052, and MAT053), OR a grade of C or better in MAT08+, OR an appropriate district placement. Course Notes: Student may receive credit for only one of the following: (MAT055 and MAT056 and MAT057), OR MAT090, OR MAT091, OR MAT092, OR MAT095, OR MAT096.

Division: Mathematics

MAT108 / Tutored Mathematics**2 Credits / 2.0 Periods for Lecture**

Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. Prerequisites: None. Corequisites: MAT051 or higher OR MAT15+, OR permission of Department or Division Chair. Course Notes: MAT108 may be repeated for a total of ten (10) credits.

Division: Mathematics

MAT108AA / Tutored Mathematics**1 Credit / 1.0 Periods for Lecture**

Structured tutorial assistance and math study skills to help students achieve success in a mathematics course in which they are concurrently enrolled. Mathematics study skills emphasized. Prerequisites: None. Corequisites: MAT051 or higher OR MAT15+, OR permission of Department or Division Chair. Course Notes: MAT108AA may be repeated for a total of ten (10) credit hours.

Division: Mathematics

MAT112 / Mathematical Concepts and Applications**3 Credits / 3.0 Periods for Lecture**

A problem solving approach to mathematics as it applies to real-life situations. Development, use and communication of mathematical concepts and applications that relate to measurement, percentage, practical geometry, statistics, finance, and unit conversions. Prerequisites: None.

Division: Mathematics

MAT114 / College Algebra Prep**4 Credits / 4.0 Periods for Lecture**

Proper use of function notation, average rate of change of functions, and evaluating arithmetic and algebraic expressions. Analysis of linear and quadratic equations, and their applications; graphs of linear and quadratic functions; operations on polynomial expressions. Prerequisites: None. Course Notes: MAT114 students may receive credit for only one of the following: MAT114, OR MAT115.

Division: Mathematics

MAT115 / College Algebra Prep**5 Credits / 5.0 Periods for Lecture**

Proper use of function notation, average rate of change of functions, and evaluating arithmetic and algebraic expressions. Analysis of linear and quadratic equations, and their applications; graphs of linear and quadratic functions; operations on polynomial expressions. Prerequisites: None. Course Notes: MAT115 students may receive credit for only one of the following: MAT114, OR MAT115.

Division: Mathematics

MAT120 / Intermediate Algebra**5 Credits / 5.0 Periods for Lecture**

Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Prerequisites: A grade of C or better in each of the following courses: (MAT055, MAT056, and MAT057), OR a grade of C or better in MAT09+, OR an appropriate district placement. Course Notes: Students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.

Division: Mathematics

MAT121 / Intermediate Algebra**4 Credits / 4.0 Periods for Lecture**

Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Prerequisites: A grade of C or better in each of the following courses: (MAT055, MAT056, and MAT057), OR a grade of C or better in MAT09+, OR an appropriate district placement. Course Notes: Students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.

Division: Mathematics

MAT122 / Intermediate Algebra**3 Credits / 3.0 Periods for Lecture**

Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Prerequisites: A grade of B or better in each of the following courses: (MAT055, MAT056, and MAT057), OR a grade of B or better in MAT09+, OR an appropriate district placement. Course Notes: Students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122 OR MAT126.

Division: Mathematics

MAT126 / Intermediate Algebra with Review**6 Credits / 6.0 Periods for Lecture**

Analysis of rational, radical, quadratic and exponential equations, functions and applications; graphs of radical, quadratic and exponential functions; operations on polynomial, rational, and radical expressions. Prerequisites: None. Course Notes: Students may receive credit for only one of the following: MAT120, OR MAT121, OR MAT122, OR MAT126. This course is designed for students that do not qualify for MAT120, MAT121, or MAT122, but need MAT12+ Intermediate Algebra to fulfill a degree requirement OR intend to complete MAT15+ College Algebra for their degree path. Review of MAT08+ Basic Arithmetic and/or MAT09+ Introductory Algebra as needed.

Division: Mathematics

MAT140 / College Mathematics**5 Credits / 5.0 Periods for Lecture**

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics. Prerequisites: An appropriate District placement, or a grade of C or better in (MAT052, MAT053, and MAT055), or (MAT055, MAT056, and MAT057), or MAT085, or MAT09+, or MAT103, or MAT114, or MAT115, or MAT12+. Course Notes: Students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146.



SUN# MAT 1142

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics**MAT141 / College Mathematics****4 Credits / 4.0 Periods for Lecture**

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics. Prerequisites: An appropriate District placement, or a grade of C or better in (MAT052, MAT053, and MAT055), or (MAT055, MAT056, and MAT057), or MAT085, or MAT09+, or MAT103, or MAT114, or MAT115, or MAT12+. Course Notes: MAT141 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146.



SUN# MAT 1142

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics

MAT142 / College Mathematics**3 Credits / 3.0 Periods for Lecture**

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics. Prerequisites: An appropriate District placement, or a grade of C or better in (MAT052, MAT053, and MAT055), or (MAT055, MAT056, and MAT057), or MAT085, or MAT09+, or MAT103, or MAT114, or MAT115, or MAT12+. Course Notes: MAT142 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146.



SUN# MAT 1142

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics**MAT145 / College Mathematics with Review****5 Credits / 5.0 Periods for Lecture**

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics, along with review of arithmetic and introductory algebra, as needed. Prerequisites: None. Course Notes: MAT145 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed.



SUN# MAT 1142

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics

MAT146 / College Mathematics with Review**6 Credits / 6.0 Periods for Lecture**

Working knowledge of college-level mathematics and its applications to real-life problems. Emphasis on understanding mathematical concepts and their applications. Topics include proportional reasoning, modeling, finance, probability, and statistics, along with review of arithmetic and introductory algebra, as needed. Prerequisites: None. Course Notes: MAT146 students may receive credit for only one of the following: MAT140, MAT141, MAT142, MAT145, or MAT146. This course is designed for students that do not qualify for MAT141 or MAT142, but intend to complete MAT14+ College Mathematics for their degree path. Review of Basic Arithmetic and Introductory Algebra as needed.



SUN# MAT 1142

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo

Division: Mathematics

MAT150 / College Algebra/Functions**5 Credits / 5.0 Periods for Lecture**

Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems. Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+ OR permission of Department or Division Chair. Course Notes: Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.

Division: Mathematics

MAT151 / College Algebra/Functions**4 Credits / 4.0 Periods for Lecture**

Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems. Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair. Course Notes: Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.

Division: Mathematics

MAT152 / College Algebra/Functions**3 Credits / 3.0 Periods for Lecture**

Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems. Prerequisites: A grade of C or better in MAT095, or MAT096, or MAT114, or MAT115, or MAT12+, OR an appropriate district placement for MAT15+, OR permission of Department or Division Chair. Course Notes: Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156.

Division: Mathematics

MAT155 / College Algebra/Functions with Review**5 Credits / 5.0 Periods for Lecture**

Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems. Prerequisites: A grade of C or better in (MAT055, MAT056, and MAT057), or MAT09+, or MAT114, or MAT115, or an appropriate district placement for MAT120 or MAT121 or MAT122, or permission of Department/Division Chair. Course Notes: Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed.

Division: Mathematics

MAT156 / College Algebra/Functions with Review**6 Credits / 6.0 Periods for Lecture**

Analysis and interpretation of the behavior and nature of functions including linear, quadratic, higher-order polynomials, rational, exponential, logarithmic, power, absolute value, and piecewise-defined functions; systems of equations, using multiple methods including matrices, and modeling and solving real world problems, along with review of intermediate algebra, as needed. Prerequisites: A grade of C or better in each of the following: (MAT055, MAT056, and MAT057), OR MAT09+ or MAT114 or MAT115, OR an appropriate district placement for MAT120 or MAT121 or MAT122, OR permission of Department or Division Chair. Course Notes: Students may receive credit for only one of the following: MAT150, OR MAT151, OR MAT152, OR MAT155, OR MAT156. This course is designed for students that do not qualify for MAT150 or MAT151 or MAT152, but intend to complete MAT15+ College Algebra for their degree path. Review of MAT12+ Intermediate Algebra as needed.

Division: Mathematics

MAT172 / Finite Mathematics**3 Credits / 3.0 Periods for Lecture**

An introduction to the mathematics required for the study of social and behavioral sciences. Includes combinatorics, probability, descriptive statistics, matrix algebra, linear programming and the mathematics of finance. Includes applications of technology in problem-solving.

Prerequisites: A grade of C or better in MAT15+, OR MAT187, OR an appropriate district placement.

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo

Division: Mathematics

MAT182 / Plane Trigonometry**3 Credits / 3.0 Periods for Lecture**

A study of measures of angles, properties of graphs of trigonometric functions, fundamental identities, addition and half-angle formulas, inverse trigonometric functions, solutions of trigonometric equations, complex numbers and properties of triangle solution. May receive credit for only one of the following: MAT182 or MAT187. Prerequisites: A grade of C or better in MAT15+, OR an appropriate district placement. Corequisites: MAT15+. Course Notes: General Education Designation: Mathematics - [MA] in combination with: MAT150 or MAT151 or MAT152 or MAT155 or MAT156. MAT182 students may receive credit for only one of the following: MAT182 or MAT187.

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo

Division: Mathematics

MAT187 / Precalculus**5 Credits / 5.0 Periods for Lecture**

Topics in algebra and trigonometry in preparation for calculus.

Prerequisites: A grade of C or better in MAT 15+, OR an appropriate district placement. Course Notes: Students may receive credit for only one of the following: MAT182 OR MAT187.

Division: Mathematics

MAT206 / Elements of Statistics**3 Credits / 3.0 Periods for Lecture**

Basic concepts and applications of statistics, including data description, estimation and hypothesis tests. Prerequisites: A grade of C or better in MAT14+, or MAT15+, or MAT187, or equivalent, or an appropriate District placement, or permission of Department/Division Chair.



SUN# MAT 1160

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Mathematics



MAT212 / Brief Calculus**3 Credits / 3.0 Periods for Lecture**

Introduction to the theory, techniques and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences. Prerequisites: A grade of C or better in MAT15+, or MAT187, or an appropriate District placement. Course Notes: Students may receive credit for only one of the following: MAT212 or MAT213.



SUN# MAT 2212

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo

Division: Mathematics

MAT213 / Brief Calculus**4 Credits / 4.0 Periods for Lecture**

Introduction to the theory, techniques, and applications of the differential and integral calculus of functions with problems related to business, life, and the social sciences. Prerequisites: A grade of C or better in MAT15+, or MAT187, or an appropriate District placement. Course Notes: Students may receive credit for only one of the following: MAT212 or MAT213.



SUN# MAT 2212

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo

Division: Mathematics

MAT217 / Mathematical Analysis for Business**3 Credits / 3.0 Periods for Lecture**

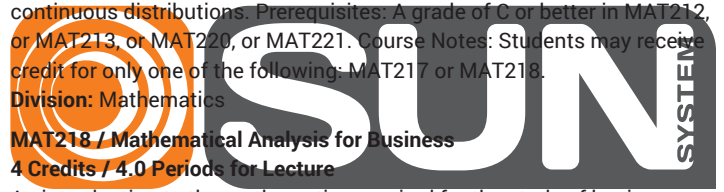
An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions. Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221. Course Notes: Students may receive credit for only one of the following: MAT217 or MAT218.

Division: Mathematics

MAT218 / Mathematical Analysis for Business**4 Credits / 4.0 Periods for Lecture**

An introduction to the mathematics required for the study of business. Includes multivariable optimization, Lagrange multipliers, linear programming, linear algebra, probability, random variables, discrete and continuous distributions. Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221. Course Notes: Students may receive credit for only one of the following: MAT217 or MAT218.

Division: Mathematics



MAT220 / Calculus with Analytic Geometry I**5 Credits / 5.0 Periods for Lecture**

Limits, continuity, differential and integral calculus of functions of one variable. Prerequisites: A grade of C or better in MAT187, or an appropriate District placement. Course Notes: MAT220 students may receive credit for only one of the following: MAT220 or MAT221.

Division: Mathematics

MAT221 / Calculus with Analytic Geometry I**4 Credits / 4.0 Periods for Lecture**

Limits, continuity, differential and integral calculus of functions of one variable. Prerequisites: A grade of C or better in MAT187, or an appropriate District placement. Course Notes: Student may receive credit for only one of the following: MAT220 or MAT221.

Division: Mathematics

MAT225 / Elementary Linear Algebra**3 Credits / 3.0 Periods for Lecture**

Introduction to matrices, systems of linear equations, determinants, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills. Prerequisites: A grade of C or better in MAT212 or MAT213 or MAT220 or MAT221, or equivalent.

Division: Mathematics

MAT227 / Discrete Mathematical Structures**3 Credits / 3.0 Periods for Lecture**

Course emphasizes discrete mathematics connections to computer science by exposing students to foundational concepts of set theory, logic, counting, induction, proof techniques, graph theory, and algorithms. Prerequisites: A grade of C or better in MAT212, or MAT213, or MAT220, or MAT221, or permission of Department or Division Chair.



SUN# MAT 2227

Division: Mathematics

MAT230 / Calculus with Analytic Geometry II**5 Credits / 5.0 Periods for Lecture**

Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent. Course Notes: Student may receive credit for only one of the following: MAT230 or MAT231.

Division: Mathematics

MAT231 / Calculus with Analytic Geometry II**4 Credits / 4.0 Periods for Lecture**

Techniques of integration for both proper and improper integrals with applications to the physical and social sciences, elements of analytic geometry, and the analysis of sequences and series. Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent. Course Notes: Student may receive credit for only one of the following: MAT230 or MAT231.

Division: Mathematics

MAT240 / Calculus with Analytic Geometry III**5 Credits / 5.0 Periods for Lecture**

Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration, and an introduction to vector fields. Prerequisites: Grade of "C" or better in MAT230 or MAT231. Course Notes: Student may receive credit for only one of the following: MAT240 or MAT241.

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo

Division: Mathematics



MAT241 / Calculus with Analytic Geometry III**4 Credits / 4.0 Periods for Lecture**

Multivariate calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields. Prerequisites: Grade of "C" or better in MAT230 or MAT231. Course Notes: Student may receive credit for only one of the following: MAT240 or MAT241.



SUN# MAT 2241

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics**MAT256 / Investigating Quantity: Number, Operations and Numeration Systems****4 Credits / 4.0 Periods for Lecture**

Explore number, numeration systems and operations on numbers. Techniques of problem solving with an emphasis on exploring a variety of strategies. Use a variety of visualization techniques to develop a conceptual understanding of these topics. Prerequisites: A grade of C or better in (MAT15+ or higher), or (MAT12+ and MAT14+), or [MAT14+ and (MAT114 or MAT115)], or (MAT14+ and an appropriate District placement into MAT150, MAT151, or MAT152), or permission of Department/Division Chair. Course Notes: MAT256 is designed to meet requirements for prospective elementary education teachers.

Division: Mathematics**MAT257 / Investigating Geometry, Probability and Statistics****4 Credits / 4.0 Periods for Lecture**

Explores geometry, measurement, probability and statistics. Uses visualization, technologies, problem solving, reasoning and proof to develop a conceptual understanding of these topics. Prerequisites: A grade of C or better in MAT256 or permission of Department/Division Chair. Course Notes: MAT257 is designed to meet the requirements for prospective elementary education teachers.

Division: Mathematics**MAT261 / Differential Equations****4 Credits / 4.0 Periods for Lecture**

Ordinary differential equations with applications including Laplace transforms with numerical methods. Prerequisites: Grade of "C" or better in MAT230, or MAT231, or equivalent.

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics**MAT276 / Modern Differential Equations****4 Credits / 4.0 Periods for Lecture**

Introduces differential equations, theoretical and practical solution techniques with applications. Problem-solving using MATLAB. Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/Division Chair.

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics**MAT277 / Modern Differential Equations****3 Credits / 3.0 Periods for Lecture**

Introduces differential equations, theoretical and practical solution techniques with applications. Problem-solving using MATLAB. Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department/Division Chair. Course Notes: Students may receive credit for only one of the following: MAT276 or MAT277.

Fulfills: Mathematics [MA]; Mathematics [MA]-in combo**Division:** Mathematics**MAT280 / Foundational Statistics for Engineers****3 Credits / 5.0 Periods for Lecture & Lab**

Fundamentals of probability, descriptive statistics, sampling distributions, parameter estimation, tests of hypotheses, regression analysis, analysis of variance, and design of experiments. Prerequisites: A grade of C or better in MAT220, or MAT221, or equivalent.

Division: Mathematics**MAT282AA / Service-Learning Experience in Mathematics****1 Credit / 1.0 Periods for Laboratory**

Unpaid Service-Learning (SL) experience, completed with approved community partner. Prerequisites: Permission of Instructor. Course Notes: MAT282AA may be repeated for a total of six (6) credit hours. Standard grading is available according to procedures outlined in catalog.

Division: Mathematics**MAT290 / Mathematics Professional Development****1 Credit / 1.0 Periods for Lecture**

Expand subject matter content knowledge and pedagogical content knowledge of the mathematics taught at the community college and beyond through an in-depth study of at least one mathematical concept; e.g. positional numeration system or mathematical properties, and the progression of the selected concept(s) through the courses offered at the community college level and beyond. Use of a variety of instructional strategies including student-centered lesson design, inquiry-based learning, problem-based learning, review of relevant literature and so forth as well as classroom observations during which the concept is taught. Prerequisites: None.

Division: Mathematics**MAT295 / Special Topics in Mathematics****1 Credit / 1.0 Periods for Lecture**

Conceptual and computational aspects of a special topic in modern mathematics. Prerequisites: Permission of Department/Division Chair.

Division: Mathematics

Microsoft Technology (MST)

MST140 / Microsoft Networking Essentials

3 Credits / 4.0 Periods for Lecture & Lab

Emphasis on local area network with overview of wide area networks. Includes terminology, hardware and software components, connectivity, network architecture, packet structure, topologies, communication standards and protocols, and security issues. Preparation for Microsoft certification examination. Prerequisites: None. (BPC110 or CIS105, and CIS121AB) suggested but not required.

Division: Business and Computing Studies

MST150SV / Microsoft Windows 7 Configuration

3 Credits / 4.0 Periods for Lecture & Lab

Knowledge and skills necessary to perform installation and day-to-day administration and support of the Microsoft Windows 7 operating system. Preparation for the Microsoft certification examination. Prerequisites: None. CIS190 or MST140 suggested but not required.

Division: Business and Computing Studies

MST150WT / Installing and Configuring Microsoft Windows 10

3 Credits / 4.0 Periods for Lecture & Lab

In-depth exploration of how to effectively install and configure Windows 10. Includes features of Windows 10, virtualization improvements, network connectivity, access to resources, monitor and maintain Windows clients and backup and recovery. Designed to prepare students for the Microsoft Windows 10 certification examination. Prerequisites: None. CIS190 or CNT140AB suggested but not required.

Division: Business and Computing Studies

MST155DB / Configuring Advanced Windows Server Services

4 Credits / 5.0 Periods for Lecture & Lab

In-depth exploration of how to effectively install and configure Windows Server. Designed to prepare students for the Microsoft Configuring Advanced Windows Server Services examination (70-412). Prerequisites: MST158++ or permission of Instructor.

Division: Business and Computing Studies

MST155DC / Installation, Storage, and Compute with Windows Server

4 Credits / 5.0 Periods for Lecture & Lab

This course focuses primarily on the installation, storage, and compute features and their functionality that is available within Windows Server. As Information Technology pushes towards more cloud based solutions and makes our classic approach obsolete, this course will help students prepare for a career within an Information Technology enterprise and help distinguish themselves in today's competitive job market. This course covers various topics like Windows Server installation, Hyper-V deployments and storage options in relation to this new cloud based reality. Prerequisites: A grade of C or better in MST150++ or permission of Instructor.

Division: Business and Computing Studies

MST157DB / Administering Windows Server

4 Credits / 5.0 Periods for Lecture & Lab

In-depth exploration of how to effectively manage Windows Server. Designed to prepare students for the Administering Microsoft Windows Server examination (70-411). Prerequisites: MST158++ or permission of Instructor.

Division: Business and Computing Studies

MST157DC / Networking with Windows Server

4 Credits / 5.0 Periods for Lecture & Lab

This course focuses on the networking features and their functionality available within Windows Server. It builds upon the skills from the Installation, Storage, and Compute with Windows Server course (MST155DC) and will develop skills related to Software-Defined Networking (SDN) solutions within Hyper-V, remote connectivity with VPN and Direct Access, and providing Internet connectivity with Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), and Internet Protocol Address Management (IPAM). This course helps prepare for the 70-741 industry certification test. Prerequisites: A grade of C or better in MST155DC or permission of Instructor.

Division: Business and Computing Studies

MST158DB / Installing and Configuring Windows Server

4 Credits / 5.0 Periods for Lecture & Lab

In-depth exploration of how to effectively install and configure Windows Server. Includes roles and features of Server, virtualization with Hyper-V, core network services, Active Directory, and Group Policy. Designed to prepare students for the corresponding Microsoft Windows Server Installation and Configuration examination (70-410). Prerequisites: A grade of C or better in (MST140 or CNT140++) and MST150++, or permission of Instructor.

Division: Business and Computing Studies

MST158DC / Identity Management with Windows Server 2016

4 Credits / 5.0 Periods for Lecture & Lab

Prepares students to manage Windows Server 2016 tasks. Configure and manage multiple services, such as Identity Management and Active Directory. Learn how to install and configure domain controllers and create and manage users, groups, and computers within Organizational Units. Prepares students for the Microsoft exam, Identity with Windows Server 2016-70-742. Prerequisites: A grade of C or better in MST157DC.

Division: Business and Computing Studies

MST160 / Azure Administrator

4 Credits / 5.0 Periods for Lecture & Lab

Teaches IT professionals how to manage Azure subscriptions, secure identities, administer the infrastructure, configure virtual networking, connect Azure and on-premises sites, manage network traffic, implement storage solutions, create and scale virtual machines, implement web apps and containers, backup and share data, and monitor solutions. Prerequisites: A grade of C or better in MST150WT, or permission of Instructor.

Division: Business and Computing Studies

MST260 / Microsoft Azure Cloud Development and Operations

3 Credits / 4.0 Periods for Lecture & Lab

Designed to provide technical information and skills required to develop and operate Microsoft Azure cloud infrastructure environments. Describes the design processes and implementation strategies for application and infrastructure that enable continuous integration, testing, and delivery, as well as infrastructure as code and process monitoring. Emphasizes processes, and technologies required to increase software delivery velocity and improve service reliability. Helps to prepare students for the Microsoft AZ-400, Azure DevOps Engineer or DevOps Institute, DevOps Foundation exams. Prerequisites: A grade of C or better in (CIS156 and MST160) or permission of Instructor.

Division: Business and Computing Studies

Mortuary Science Program (MSP)

MSP101 / Introduction to Mortuary Science

1 Credit / 1.0 Periods for Lecture

Designed to orient prospective students to mortuary science and its history, educational requirements, internships, licensure examination, job descriptions for funeral directors, embalmers and cremationists, and employment outlook. Prerequisites: None.

Division: Health Science and Public Service

MSP105 / Crematory Operator Training

0.5 Credits / 0.5 Periods for Lecture

Overview of cremation equipment, processes, laws, and safety. Prepares students to apply for licensure as a cremationist. Prerequisites: Permission of Instructor. Course Notes: Students must meet all applicable state license requirements to practice as a cremationist. Reference the Arizona State Funeral Board for specific licensing requirements.

Division: Health Science and Public Service

MSP201 / History and Sociology of Funeral Service

3 Credits / 3.0 Periods for Lecture

Survey of history of funeral service from ancient to modern times. Sociological aspects of how various cultures deal with death. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP202 / Embalming Laboratory

1 Credit / 2.0 Periods for Laboratory

Laboratory experience in support of MSP202 lecture course. Prerequisites: Admission to the Mortuary Science program. Corequisites: MSP202 lecture course.

Division: Health Sciences

MSP202LL / Embalming Lab

1 Credit / 2.0 Periods for Laboratory

Field experience involving observation and practice of embalming processes in a laboratory setting. Includes writing case study reports. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: MSP202 and admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP203 / Microbiology for Mortuary Science

3 Credits / 3.0 Periods for Lecture

Survey of microbiology as it pertains to mortuary science and the funeral service profession. Review of safety precautions, sanitation practices, and pathogens that can lead to illness or death. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP204 / Chemistry for Mortuary Science

3 Credits / 3.0 Periods for Lecture

Basic principles of general chemistry, organic chemistry, biochemistry, embalming chemistry, and toxicology as it relates to mortuary science. Safety practices regarding potentially harmful chemicals. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP205 / Mortuary Administration I

3 Credits / 3.0 Periods for Lecture

Funeral directing and establishing professional relationships with religious leaders and family members. Includes documentation procedures from time of death to funeral. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP206 / Mortuary Administration II

3 Credits / 3.0 Periods for Lecture

Operation of the established funeral home, including principles and product knowledge in the area of funeral service management and merchandising. Prerequisites: A grade of C or better in MSP205.

Division: Health Science and Public Service

MSP207 / Restorative Art Laboratory

1 Credit / 2.0 Periods for Laboratory

Laboratory experience in support of MSP207 lecture course. Prerequisites: Admission to the Mortuary Science program. Corequisites: MSP207 lecture course.

Division: Health Sciences

MSP207LL / Mortuary Science Restorative Art Lab

1 Credit / 2.0 Periods for Laboratory

Practice care and restoration of the deceased human body to create natural form and appearance in a laboratory setting. Includes anatomical aspects and color theory. A grade of C or better required in all Prerequisites. Prerequisites or Corequisites: MSP207 and admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP208 / Legal, Regulatory, and Ethical Issues in Mortuary Science

3 Credits / 3.0 Periods for Lecture

Mortuary law, regulation by the Federal Trade Commission, and ethical issues in mortuary science. Individual state laws as they pertain to the regulation of funeral establishments and funeral service personnel. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP209 / Pathology for Mortuary Science

3 Credits / 3.0 Periods for Lecture

Pathologic conditions which require special treatment and terminology associated with the causes of death. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP210 / Psychology, Counseling, and Mortuary Science

2 Credits / 2.0 Periods for Lecture

Psychology and grief counseling principles in mortuary science. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

MSP211 / Compendium for Mortuary Science

2 Credits / 2.0 Periods for Lecture

Analysis of daily tasks performed by funeral service personnel. Capstone experience based on all previous course work. Prerequisites: Admission to the Mortuary Science program.

Division: Health Science and Public Service

Music: Commercial/Business (MUC)

MUC109 / Music Business: Content Creation and Copyright

3 Credits / 3.0 Periods for Lecture

Designed to provide an overview of content creation and copyright considerations within the Music Industry. Topics include songwriting and music creation, copyright, publishing and licensing, studio production, media applications of music, business ownership and operations, and emerging technologies. Prerequisites: None.

Division: Communication & Fine Arts

MUC110 / Music Business: Marketing and Monetization**3 Credits / 3.0 Periods for Lecture**

Designed to provide an overview of the marketing and monetization of music. Topics include music label operations; contracts; marketing, promotion, and merchandising; agents, managers, and attorneys; concert promotion and touring; and unions and guilds. Prerequisites: None.

Division: Communication & Fine Arts

MUC111 / Digital Audio Workstation I (DAW I)**3 Credits / 5.0 Periods for Lecture & Lab**

Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. Prerequisites: A grade of C or better in MUC195, or MUC195AA, or FMP105, or permission of Instructor.

Division: Communication & Fine Arts

MUC112 / Digital Audio Workstation II (DAW II)**3 Credits / 5.0 Periods for Lecture & Lab**

Use of digital mixing and automation software in conjunction with editing and recording. Includes computer operation, troubleshooting, and file management. Prerequisites: A grade of C or better in MUC111, and (MUC195 or MUC195AA).

Division: Communication & Fine Arts

MUC195 / Studio Music Recording I**3 Credits / 5.0 Periods for Lecture & Lab**

Basic principles of studio sound recording. Emphasis on musical acoustics, operation of recording equipment, studio setups, and multitrack recording. Includes studio session process and musical production decisions. Prerequisites: None.

Division: Communication & Fine Arts

MUC290AA / Music Business Internship**1 Credit / 1.0 Periods for Lecture & Lab**

Music Business Internship work experience. Perform a variety of activities, to fulfill the routines and responsibilities of the department or business where the internship is served. Eighty (80) hours of designated work per credit. Prerequisites: Permission of Department or Division. Course Notes: MUC290AA may be repeated for a total of twelve (12) credit hours.

Division: Communication & Fine Arts

MUC293 / Self Promotion for Music**1 Credit / 1.0 Periods for Lecture**

Designed to provide the skills and knowledge required for effective self-promotion. Focus on career goal development, market analysis, communication and networking skills, and the development of a self-promotional campaign. Prerequisites: None.

Division: Communication & Fine Arts

Music: History/Literature (MHL)

MHL140 / Survey of Music History**3 Credits / 3.0 Periods for Lecture**

Study of composers, compositions, styles, and periods in music history. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

MHL143 / Music in World Cultures**3 Credits / 3.0 Periods for Lecture**

Non-European musical traditions including the study of music in rituals, musical instruments and the impact of cultures on musical styles.

Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

MHL145 / American Jazz and Popular Music**3 Credits / 3.0 Periods for Lecture**

The study of cultural and social contributions to the evolution of American jazz and popular music from the mid-1800's to present.

Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Communication & Fine Arts

MHL146 / Survey of Broadway Musicals**3 Credits / 3.0 Periods for Lecture**

Survey of Broadway musicals traced from their origins to the present viewed in their cultural, political, and socioeconomic contexts. Emphasis on stylistic periods, composers, lyricists, directors, and choreographers.

Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

MHL153 / Rock Music and Culture**3 Credits / 3.0 Periods for Lecture**

History of Rock music and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Communication & Fine Arts

MHL155 / Survey of American Music**3 Credits / 3.0 Periods for Lecture**

History of the music of North America from the earliest American Indian music to the present. Introduction to the musical trends, composers, socioeconomic developments and trends, musical forms and styles that influence our modern American musical sense. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Communication & Fine Arts

MHL194 / Music and Culture**3 Credits / 3.0 Periods for Lecture**

Introduction to the study of multicultural music in its social, cultural, historical and economic contexts. Performance of music using percussion, rhythm, and the human body. Historical and social aspects of global cultures' musical expressions. Prerequisites: A grade of C or better in (MTC105 and MTC106) or permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Communication & Fine Arts

MHL204 / Hip-Hop Music and Culture**3 Credits / 3.0 Periods for Lecture**

A history of Hip-Hop's musical and artistic elements and how cultural, social, political, and economic conditions have shaped its evolution. Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

MHL241 / Music History and Literature to 1750**3 Credits / 3.0 Periods for Lecture**

In-depth study of music history from the primitive era through the Baroque period. Prerequisites or Corequisites: A grade of C or better in MTC155 and MTC156, or permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

MHL242 / Music History and Literature 1750 to Present**3 Credits / 3.0 Periods for Lecture**

In-depth study of music history from the Classical period through the Contemporary period. Prerequisites: A grade of C or better in MHL241 or permission of instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

MHL295 / Topics in Music**3 Credits / 3.0 Periods for Lecture**

Exploration of selected topics in music. Focuses on a theme, era, genre, concept, or critical approach. Analysis and interpretation of topic's representation, development, and significance in a variety of subjects related to music humanities. Includes reading, listening analysis and interpretation of music and musical texts. Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor. Course Notes: MHL295 may be repeated for a total of nine (9) credit hours.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

Music: Performance (MUP)

MUP101AA / Private Instruction: Voice**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101AA may be repeated for credit.

Division: Communication & Fine Arts

MUP101AD / Private Instruction: Piano**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101AD may be repeated for credit.

Division: Communication & Fine Arts

MUP101AM / Private Instruction: Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101AM may be repeated for credit.

Division: Communication & Fine Arts

MUP101AP / Private Instruction: Trumpet**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101AP may be repeated for credit.

Division: Communication & Fine Arts

MUP101AS / Private Instruction: French Horn**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101AS may be repeated for credit.

Division: Communication & Fine Arts

MUP101AV / Private Instruction: Trombone**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101AV may be repeated for credit.

Division: Communication & Fine Arts

MUP101AY / Private Instruction: Euphonium**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101AY may be repeated for credit.

Division: Communication & Fine Arts

MUP101BB / Private Instruction: Tuba**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BB may be repeated for credit.

Division: Communication & Fine Arts

MUP101BE / Private Instruction: Flute**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BE may be repeated for credit.

Division: Communication & Fine Arts

MUP101BH / Private Instruction: Oboe**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BH may be repeated for credit.

Division: Communication & Fine Arts

MUP101BK / Private Instruction: Clarinet**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BK may be repeated for credit.

Division: Communication & Fine Arts

MUP101BN / Private Instruction: Bassoon**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BN may be repeated for credit.

Division: Communication & Fine Arts

MUP101BQ / Private Instruction: Saxophone**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BQ may be repeated for credit.

Division: Communication & Fine Arts

MUP101BT / Private Instruction: Violin**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BT may be repeated for credit.

Division: Communication & Fine Arts

MUP101BW / Private Instruction: Viola**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BW may be repeated for credit.

Division: Communication & Fine Arts

MUP101BZ / Private Instruction: Violoncello**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101BZ may be repeated for credit.

Division: Communication & Fine Arts

MUP101CC / Private Instruction: Contrabass**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101CC may be repeated for credit.

Division: Communication & Fine Arts

MUP101CF / Private Instruction: Popular Music Bass Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: None. Course Notes: MUP101CF may be repeated for credit.

Division: Communication & Fine Arts

MUP101CI / Private Instruction: Percussion**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. May be repeated for credit. Prerequisites: None. Course Notes: MUP101CI may be repeated for credit.

Division: Communication & Fine Arts

MUP101CJ / Private Instruction: Harp**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP101CJ may be repeated for credit.

Division: Communication & Fine Arts

MUP101CM / Private Instruction: Popular Music Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: None. Course Notes: MUP101CM may be repeated for credit.

Division: Communication & Fine Arts

MUP102AA / Private Instruction: Voice**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102AA may be repeated for credit.

Division: Communication & Fine Arts

MUP102AD / Private Instruction: Piano**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102AD may be repeated for credit.

Division: Communication & Fine Arts

MUP102AJ / Private Instruction: Organ**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102AJ may be repeated for credit.

Division: Communication & Fine Arts

MUP102AM / Private Instruction: Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102AM may be repeated for credit.

Division: Communication & Fine Arts

MUP102AP / Private Instruction: Trumpet**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102AP may be repeated for credit.

Division: Communication & Fine Arts

MUP102AS / Private Instruction: French Horn**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102AS may be repeated for credit.

Division: Communication & Fine Arts

MUP102CF / Private Instruction: Popular Music Bass Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: None. Course Notes: MUP102CF may be repeated for credit.

Division: Communication & Fine Arts

MUP102CI / Private Instruction: Percussion**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102CI may be repeated for credit.

Division: Communication & Fine Arts

MUP102CJ / Private Instruction: Harp**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: None. Course Notes: MUP102CJ may be repeated for credit.

Division: Communication & Fine Arts

MUP102CM / Private Instruction: Popular Music Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: None. Course Notes: MUP102CM may be repeated for credit.

Division: Communication & Fine Arts

MUP127 / Class Guitar I**1 Credit / 3.0 Periods for Lecture & Lab**

Emphasis on note-reading and folk-style harmonic accompaniment. Includes finger-style playing. Stresses development of efficient practice techniques and proper sitting and hand positions. Prerequisites: None.

Division: Communication & Fine Arts

MUP128 / Class Guitar II**1 Credit / 3.0 Periods for Lecture & Lab**

Note-reading range including second position and parts of higher positions. Classical, popular, Latin, and other styles of music. Theory including scales, keys, and chord construction. Technical exercises of both hands. Prerequisites: A grade of C or better in MUP127 or permission of Instructor.

Division: Communication & Fine Arts

MUP131 / Class Piano I**1 Credit / 3.0 Periods for Lecture & Lab**

Development of beginning piano techniques and the fundamentals of music including basic hand position, music-reading skills of melodic and harmonic material, major scales, transposition, and harmonizations including the I, IV, V7 chords. Prerequisites: None.

Division: Communication & Fine Arts

MUP132 / Class Piano II**1 Credit / 3.0 Periods for Lecture & Lab**

Continuation of Piano I with emphasis on elementary piano techniques including major and minor scales, transposition, improvisation, and sight reading. Prerequisites: A grade of C or better in MUP131 or permission of Instructor.

Division: Communication & Fine Arts

MUP133 / Class Voice I**1 Credit / 3.0 Periods for Lecture & Lab**

Introduction to the fundamentals of vocal production. Emphasis on breathing techniques, tone production and performances in class of solo vocal literature. Prerequisites: None.

Division: Communication & Fine Arts

MUP134 / Class Voice II**1 Credit / 3.0 Periods for Lecture & Lab**

Continuation of Class Voice I including the elements of stage presence and diction. Prerequisites: A grade of C or better in MUP133 or permission of Instructor.

Division: Communication & Fine Arts

MUP150 / Community Chorus**1 Credit / 3.0 Periods for Lecture & Lab**

A mixed chorus with emphasis on college/community participation and preparation of a variety of choral literature for public performance. Auditions may be required. Prerequisites: None. Course Notes: MUP150 may be repeated for credit.

Division: Communication & Fine Arts

MUP151AA / Private Instruction: Voice**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP101AA. Course Notes: MUP151AA may be repeated for credit.

Division: Communication & Fine Arts

MUP151AD / Private Instruction: Piano**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP101AD. Course Notes: MUP151AD may be repeated for credit.

Division: Communication & Fine Arts

MUP151AM / Private Instruction: Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP101AM. Course Notes: MUP151AM may be repeated for credit.

Division: Communication & Fine Arts

MUP151BT / Private Instruction: Violin**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP101BT. Course Notes: MUP151BT may be repeated for credit.

Division: Communication & Fine Arts

MUP151CF / Private Instruction: Popular Music Bass Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: A grade of C or better in MUP101CF. Course Notes: MUP151CF may be repeated for credit.

Division: Communication & Fine Arts

MUP152AA / Private Instruction: Voice**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102AA. Course Notes: MUP152AA may be repeated for credit.

Division: Communication & Fine Arts

MUP152AD / Private Instruction: Piano**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102AD. Course Notes: MUP152AD may be repeated for credit.

Division: Communication & Fine Arts

MUP152AJ / Private Instruction: Organ**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102AJ. Course Notes: MUP152AJ may be repeated for credit.

Division: Communication & Fine Arts

MUP152AM / Private Instruction: Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102AM. Course Notes: MUP152AM may be repeated for credit.

Division: Communication & Fine Arts

MUP152AP / Private Instruction: Trumpet**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102AP. Course Notes: MUP152AP may be repeated for credit.

Division: Communication & Fine Arts

MUP152AS / Private Instruction: French Horn**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102AS. Course Notes: MUP152AS may be repeated for credit.

Division: Communication & Fine Arts

MUP152AY / Private Instruction: Euphonium**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102AY. Course Notes: MUP152AY may be repeated for credit.

Division: Communication & Fine Arts

MUP152BB / Private Instruction: Tuba**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BB. Course Notes: MUP152BB may be repeated for credit.

Division: Communication & Fine Arts

MUP152BE / Private Instruction: Flute**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BE. Course Notes: MUP152BE may be repeated for credit.

Division: Communication & Fine Arts

MUP152BH / Private Instruction: Oboe**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BH. Course Notes: MUP152BH may be repeated for credit.

Division: Communication & Fine Arts

MUP152BK / Private Instruction: Clarinet**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BK. Course Notes: MUP152BK may be repeated for credit.

Division: Communication & Fine Arts

MUP152BN / Private Instruction: Bassoon**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BN. Course Notes: MUP152BN may be repeated for credit.

Division: Communication & Fine Arts

MUP152BQ / Private Instruction: Saxophone**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BQ. Course Notes: MUP152BQ may be repeated for credit.

Division: Communication & Fine Arts

MUP152BT / Private Instruction: Violin**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BT. Course Notes: MUP152BT may be repeated for credit.

Division: Communication & Fine Arts

MUP152BW / Private Instruction: Viola**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BW. Course Notes: MUP152BW may be repeated for credit.

Division: Communication & Fine Arts

MUP152BZ / Private Instruction: Violoncello**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102BZ. Course Notes: MUP152BZ may be repeated for credit.

Division: Communication & Fine Arts

MUP152CC / Private Instruction: Contrabass**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102CC. Course Notes: MUP152CC may be repeated for credit.

Division: Communication & Fine Arts

MUP152CF / Private Instruction: Popular Music Bass Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: A grade of C or better in MUP102CF. Course Notes: MUP152CF may be repeated for credit.

Division: Communication & Fine Arts

MUP152CI / Private Instruction: Percussion**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102CI. Course Notes: MUP152CI may be repeated for credit.

Division: Communication & Fine Arts

MUP152CJ / Private Instruction: Harp**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP102CJ. Course Notes: MUP152CJ may be repeated for credit.

Division: Communication & Fine Arts

MUP153 / Concert Choir**1 Credit / 5.0 Periods for Lecture & Lab**

A mixed choir designed to emphasize choral techniques and performance of all styles of choral literature. Public performances are scheduled each semester. Prerequisites: None. Course Notes: Auditions may be required. MUP153 may be repeated for credit.

Division: Communication & Fine Arts

MUP154AA / Jazz Vocal Ensemble**1 Credit / 3.0 Periods for Lecture & Lab**

Practical and performing experience in vocal jazz. Includes music from the 1920's through the present. Prerequisites: Auditions required or permission of Instructor. Course Notes: MUP154AA may be repeated for credit.

Division: Communication & Fine Arts

MUP159 / Community Orchestra**1 Credit / 3.0 Periods for Lecture & Lab**

Emphasis on college/community participation and the preparation of orchestral literature for public performance. Prerequisites: None. Course Notes: MUP159 may be repeated for credit. Auditions may be required.

Division: Communication & Fine Arts

MUP161 / Community Band**1 Credit / 3.0 Periods for Lecture & Lab**

Emphasis on college/community participation and the preparation of band literature for public performance. Prerequisites: None. Course Notes: MUP161 may be repeated for credit. Auditions may be required.

Division: Communication & Fine Arts

MUP163 / Jazz Ensemble**1 Credit / 3.0 Periods for Lecture & Lab**

Practical and performance experience in various jazz styles. Prerequisites: None. Course Notes: MUP163 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.

Division: Communication & Fine Arts

MUP164 / Jazz Improvisation I**2 Credits / 3.0 Periods for Lecture & Lab**

Theoretical and performance skills in many styles of jazz improvisation. Prerequisites: None. Course Notes: MUP164 may be repeated for a total of six (6) credit hours.

Division: Communication & Fine Arts

MUP171 / Opera Workshop**2 Credits / 5.0 Periods for Lecture & Lab**

A workshop in the study and performance of operatic literature. Prerequisites: None. Course Notes: MUP171 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.

Division: Communication & Fine Arts

MUP181 / Chamber Music Ensembles**1 Credit / 2.0 Periods for Lecture & Lab**

Practical and performance experience in instrumental, vocal, and mixed ensembles. Prerequisites: None. Course Notes: MUP181 may be repeated for credit.

Division: Communication & Fine Arts

MUP182 / Chamber Singers**1 Credit / 3.0 Periods for Lecture & Lab**

Practical and performance experience in various styles of vocal music. Prerequisites: None. Course Notes: MUP182 may be repeated for credit. Open to all students on the basis of auditions. Auditions may be required.

Division: Communication & Fine Arts

MUP183 / Jazz Combo**1 Credit / 2.0 Periods for Lecture & Lab**

Jazz Combo participation provides an opportunity for students to develop improvisational skills in a variety of styles from historical and contemporary jazz practice, while offering a creative outlet for composers and arrangers. Prerequisites: None. Course Notes: MUP183 may be repeated for credit.

Division: Communication & Fine Arts

MUP190 / Percussion Ensemble**1 Credit / 3.0 Periods for Lecture & Lab**

Practical and performance experience in various percussion styles. Percussion literature from a diverse number of world musical traditions. Western European art music, various African traditions, Indian music, Japanese music, Indonesian music, Mexican, Central, and South American music, and percussion compositions from the American Experimental Tradition rehearsed and performed. Concerts presented throughout the semester. Percussion techniques are studied and refined as they relate to the literature performed. Emphasis placed on reading and listening skills, increased aesthetic discrimination. Informed performance practice and skills on all percussion instruments and traditions. Prerequisites: None. Course Notes: MUP190 may be repeated for credit.

Division: Communication & Fine Arts

MUP201AA / Private Instruction: Voice**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, harp and percussion. Prerequisites: A grade of C or better in MUP151AA. Course Notes: MUP201AA may be repeated for credit.

Division: Communication & Fine Arts

MUP201AD / Private Instruction: Piano**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP151AD. Course Notes: MUP201AD may be repeated for credit.

Division: Communication & Fine Arts

MUP201AM / Private Instruction: Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP151AM. Course Notes: MUP201AM may be repeated for credit.

Division: Communication & Fine Arts

MUP201CF / Private Instruction: Popular Music Bass Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: A grade of C or better in MUP151CF. Course Notes: MUP201CF may be repeated for credit.

Division: Communication & Fine Arts

MUP202AA / Private Instruction: Voice**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152AA. Course Notes: MUP202AA may be repeated for credit.

Division: Communication & Fine Arts

MUP202AD / Private Instruction: Piano**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152AD. Course Notes: MUP202AD may be repeated for credit.

Division: Communication & Fine Arts

MUP202AM / Private Instruction: Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152AM. Course Notes: MUP202AM may be repeated for credit.

Division: Communication & Fine Arts

MUP202AP / Private Instruction: Trumpet**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152AP. Course Notes: MUP202AP may be repeated for credit.

Division: Communication & Fine Arts

MUP202AS / Private Instruction: French Horn**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152AS. Course Notes: MUP202AS may be repeated for credit.

Division: Communication & Fine Arts

MUP202AV / Private Instruction: Trombone**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152AV. Course Notes: MUP202AV may be repeated for credit.

Division: Communication & Fine Arts

MUP202AY / Private Instruction: Euphonium**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, euphonium, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152AY. Course Notes: MUP202AY may be repeated for credit.

Division: Communication & Fine Arts

MUP202BB / Private Instruction: Tuba**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BB. Course Notes: MUP202BB may be repeated for credit.

Division: Communication & Fine Arts

MUP202BE / Private Instruction: Flute**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BE. Course Notes: MUP202BE may be repeated for credit.

Division: Communication & Fine Arts

MUP202BH / Private Instruction: Oboe**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BH. Course Notes: MUP202BH may be repeated for credit.

Division: Communication & Fine Arts

MUP202BK / Private Instruction: Clarinet**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BK. Course Notes: MUP202BK may be repeated for credit.

Division: Communication & Fine Arts

MUP202BN / Private Instruction: Bassoon**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BN. Course Notes: MUP202BN may be repeated for credit.

Division: Communication & Fine Arts

MUP202BQ / Private Instruction: Saxophone**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BQ. Course Notes: MUP202BQ may be repeated for credit.

Division: Communication & Fine Arts

MUP202BT / Private Instruction: Violin**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BT. Course Notes: MUP202BT may be repeated for credit.

Division: Communication & Fine Arts

MUP202BW / Private Instruction: Viola**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BW. Course Notes: MUP202BW may be repeated for credit.

Division: Communication & Fine Arts

MUP202BZ / Private Instruction: Violoncello**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152BZ. Course Notes: MUP202BZ may be repeated for credit.

Division: Communication & Fine Arts

MUP202CC / Private Instruction: Contrabass**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152CC. Course Notes: MUP202CC may be repeated for credit.

Division: Communication & Fine Arts

MUP202CF / Private Instruction: Popular Music Bass Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: A grade of C or better in MUP152CF. Course Notes: MUP202CF may be repeated for credit.

Division: Communication & Fine Arts

MUP202CI / Private Instruction: Percussion**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152CI. Course Notes: MUP202CI may be repeated for credit.

Division: Communication & Fine Arts

MUP202CJ / Private Instruction: Harp**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP152CJ. Course Notes: MUP202CJ may be repeated for credit.

Division: Communication & Fine Arts

MUP202CM / Private Instruction: Popular Music Guitar**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: A grade of C or better in MUP152CM. Course Notes: MUP202CM may be repeated for credit.

Division: Communication & Fine Arts

MUP209 / Elements of Conducting**2 Credits / 2.0 Periods for Lecture**

Essentials of conducting techniques used in choral and instrumental ensembles including terminology, interpretation, and styles. Prerequisites: None.

Division: Communication & Fine Arts

MUP217 / Music Theatre: Broadway Solos**1 Credit / 3.0 Periods for Lecture & Lab**

Study and in-class performance of scenes and solos from Broadway musical literature. Prerequisites: None.

Division: Communication & Fine Arts

MUP227 / Class Guitar III**1 Credit / 3.0 Periods for Lecture & Lab**

Additional fingerboard positions. Ensemble techniques and performance. Prerequisites: A grade of C or better in MUP128 or permission of Instructor.

Division: Communication & Fine Arts

MUP228 / Class Guitar IV**1 Credit / 3.0 Periods for Lecture & Lab**

Advanced fingerboard positions. Duet and trio performances. Advanced ensemble techniques. Prerequisites: A grade of C or better in MUP227 or permission of Instructor. Course Notes: MUP228 may be repeated for credit.

Division: Communication & Fine Arts

MUP231 / Class Piano III**1 Credit / 3.0 Periods for Lecture & Lab**

Development of intermediate piano techniques including selected solo literature, transposition of harmonic patterns, and secondary dominants. Prerequisites: A grade of C or better in MUP132 or permission of Instructor.

Division: Communication & Fine Arts

MUP232 / Class Piano IV**1 Credit / 3.0 Periods for Lecture & Lab**

Continuation of Piano III including modulation techniques, improvisation of piano accompaniments, advanced chromatic harmony, and sight reading of advanced literature. Prerequisites: A grade of C or better in MUP231 or permission of Instructor.

Division: Communication & Fine Arts

MUP233 / Class Voice III**1 Credit / 3.0 Periods for Lecture & Lab**

Interpretive singing through a closer examination of coloring, tone production, dynamics, and tempo indications. Prerequisites: A grade of C or better in MUP134.

Division: Communication & Fine Arts

MUP234 / Class Voice IV**1 Credit / 3.0 Periods for Lecture & Lab**

Emphasis on the preparation of solo vocal literature for the purpose of evaluation and the integration of the music with the drama of the music. Prerequisites: A grade of C or better in MUP233 or permission of Instructor. Course Notes: MUP234 may be repeated for credit.

Division: Communication & Fine Arts

MUP250AA / Survey Of Diction For Singers (English)**1 Credit / 2.0 Periods for Lecture & Lab**

Introduction to the use of phonetics in the study of English song literature. Prerequisites: None.

Division: Communication & Fine Arts

MUP250AB / Survey Of Diction For Singers (Italian/Latin)**1 Credit / 2.0 Periods for Lecture & Lab**

Introduction to the use of phonetics in the study of Italian/Latin song literature. Prerequisites: None.

Division: Communication & Fine Arts

MUP251AA / Private Instruction: Voice**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP201AA. Course Notes: MUP251AA may be repeated for credit.

Division: Communication & Fine Arts

MUP251AD / Private Instruction: Piano**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP201AD. Course Notes: MUP251AD may be repeated for credit.

Division: Communication & Fine Arts

MUP251AM / Private Instruction: Guitar**1 Credit / 0.6 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP201AM. Course Notes: MUP251AM may be repeated for credit.

Division: Communication & Fine Arts

MUP252BZ / Private Instruction: Violoncello**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP202BZ. Course Notes: MUP252BZ may be repeated for credit.

Division: Communication & Fine Arts

MUP252CC / Private Instruction: Contrabass**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP202CC. Course Notes: MUP252CC may be repeated for credit.

Division: Communication & Fine Arts

MUP252CI / Private Instruction: Percussion**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing musicianship, literature, technique and performance. Four-course sequence designed for university transfer equivalency. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, and harp. Prerequisites: A grade of C or better in MUP202CI. Course Notes: MUP252CI may be repeated for credit.

Division: Communication & Fine Arts

MUP252CL / Private Instruction: Popular Music Piano**2 Credits / 1.2 Periods for Lecture & Lab**

Private Instruction emphasizing developmental improvement of musicianship and technique from an entering skill level. Four-course sequence required of all music majors meeting departmental requirements. Instruction provided on voice, piano, harpsichord, organ, guitar, trumpet, French horn, trombone, baritone horn, tuba, flute, oboe, clarinet, bassoon, saxophone, violin, viola, violoncello, contrabass, bass guitar, percussion, harp, turntablism and electronic music. Prerequisites: A grade of C or better in MUP202CL. Course Notes: MUP252CL may be repeated for credit.

Division: Communication & Fine Arts

MUP270 / Musical Theatre Workshop**2 Credits / 5.0 Periods for Lecture & Lab**

Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. Prerequisites: None. Course Notes: MUP/THP270 may be repeated for credit.

Division: Communication & Fine Arts

MUP270AA / Musical Theatre Workshop**1 Credit / 3.0 Periods for Laboratory**

Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. Prerequisites: None. Course Notes: MUP/THP270AA may be repeated for a total of two (2) credits.

Division: Communication & Fine Arts

MUP273 / Musical Theatre Production**1 Credit / 5.0 Periods for Laboratory**

Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. Prerequisites: By audition.

Division: Communication & Fine Arts

Music: Theory/Composition (MTC)

MTC101 / Introduction to Music Theory**3 Credits / 3.0 Periods for Lecture**

Designed to develop written and aural skills necessary for advanced study of music theory and skills. Recommended for music majors. Prerequisites: None.

Division: Communication & Fine Arts

MTC103 / Introduction to Aural Perception**1 Credit / 2.0 Periods for Lecture & Lab**

An introduction to the aural skills necessary to hear relationships of intervals, rhythms, melody, and harmony in music. Prerequisites: None. Course Notes: MTC103 may be repeated for a total of two (2) credit hours.

Division: Communication & Fine Arts

MTC105 / Music Theory I**3 Credits / 3.0 Periods for Lecture**

The chronological study of music theory including: harmony, melody, texture, structure and timbre through analysis, original compositions and basic exercises to demonstrate musical concepts. Prerequisites: A grade of C or better in MTC101 or permission of instructor. Corequisites: MTC106.

Division: Communication & Fine Arts

MTC106 / Aural Perception I**1 Credit / 2.0 Periods for Lecture & Lab**

The development of listening and performing skills through dictation, sight-singing and keyboard harmony. Prerequisites: None. Corequisites: MTC105.

Division: Communication & Fine Arts

MTC130 / Jazz Theory**2 Credits / 2.0 Periods for Lecture**

Develop written and aural theory skills necessary in the jazz idiom. Prerequisites: A grade of C or better in (MTC101 and MTC103), or permission of Instructor. Course Notes: MTC130 is recommended for students taking jazz improvisation, jazz composition and jazz combo.

Division: Communication & Fine Arts

MTC140 / Songwriting**3 Credits / 3.0 Periods for Lecture**

An introduction to the art and craft of songwriting through the study and analysis of diverse songwriters and musical styles, and creation of original songs. Prerequisites: A grade of C or better in MTC101, or MTC105, or permission of Instructor. Course Notes: MTC140 may be repeated for a total of six (6) credits.

Division: Communication & Fine Arts

MTC155 / Music Theory II**3 Credits / 3.0 Periods for Lecture**

A continuation of Music Theory I with emphasis on harmony and part-writing procedures. Prerequisites: A grade of C or better in MTC105. Corequisites: MTC156.

Division: Communication & Fine Arts

MTC156 / Aural Perception II**1 Credit / 2.0 Periods for Lecture & Lab**

A continuation of Aural Perception I, including harmonic practices.

Prerequisites: A grade of C or better in MTC106. Corequisites: MTC155.

Division: Communication & Fine Arts

MTC180 / Computer Literacy for Musicians**3 Credits / 4.0 Periods for Lecture & Lab**

Instruction in basic computer literacy, including generic applications and music-specific programs with hands-on experience. Ability to read music notation required. Prerequisites: A grade of C or better in MTC101, or MTC105, or Corequisites: MTC105, or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Communication & Fine Arts

MTC191 / Electronic Music I**3 Credits / 4.0 Periods for Lecture & Lab**

An introduction to creating music with computers, utilizing the Musical Instrument Digital Interface (MIDI) protocol, synthesizers, digital audio software/hardware, and MIDI controllers. Prerequisites: None.

Division: Communication & Fine Arts

MTC205 / Music Theory III**3 Credits / 3.0 Periods for Lecture**

The study of chromatic harmony and melody, modulation techniques and expanded chords. The analysis of formal structure. Prerequisites: A grade of C or better in MTC155. Corequisites: MTC206.



SUN# MUS 2222

Division: Communication & Fine Arts

MTC206 / Aural Perception III**1 Credit / 2.0 Periods for Lecture & Lab**

A development of listening and performing skills, including an introduction of chromatic harmonic techniques and concepts of style.

Prerequisites: A grade of C or better in MTC156. Corequisites: MTC205.



SUN# MUS 2222

Division: Communication & Fine Arts

MTC240 / Composition**3 Credits / 0.6 Periods for Lecture & Lab**

Introduction to the basics of music composition, stressing techniques and procedures for developing original ideas. Prerequisites: A grade of C or better in (MTC105 and MTC106, or equivalent), and permission of Instructor. Course Notes: MTC240 may be repeated for a total of twelve (12) credit hours.

Division: Communication & Fine Arts



MTC255 / Music Theory IV

3 Credits / 3.0 Periods for Lecture

A continuation of Music Theory III, including 20th century theories and techniques. Prerequisites: A grade of C or better in MTC205. Corequisites: MTC256.



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Division: Communication & Fine Arts

MTC256 / Aural Perception IV

1 Credit / 2.0 Periods for Lecture & Lab

A continuation of Aural Perception III, including extended chords. Prerequisites: A grade of C or better in MTC206. Corequisites: MTC255.



SUN# MUS 2223

Division: Communication & Fine Arts

Navajo (NAV)

NAV115 / Beginning Navajo Conversation I

3 Credits / 3.0 Periods for Lecture

Beginning conversational Navajo with emphasis on basic listening and speaking skills, including basic pronunciation, vocabulary, sentence structure, and cultural awareness. Prerequisites: None.

Division: Language, Humanities, Learning Center & Informtn Studies

Nursing Science: Basic (NUR)

NUR104AB / Structured Nursing Review

1 Credit / 1.0 Periods for Lecture

Structured nursing tutorial assistance and nursing study skills to help students achieve success in their respective block of nursing courses.

Nursing process and critical thinking application skills emphasized.

Prerequisites: None. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair. Corequisites: Concurrent enrollment in the Nursing program or permission of Department Chair.

Course Notes: Course offered as Credit (P) No credit (Z) basis. NUR104AB may be repeated for a total of eight (8) credits.

Division: Nursing and Health Sciences



NUR152 / Nursing Theory and Science I**9 Credits / 16.88 Periods for Laboratory, 4.0 Periods for Lecture**

Introduction of Nurse of the Future competencies as a foundational framework for development of the professional nurse. Basic care concepts and the nursing process are utilized to meet the needs of adult and older adult patients. Prerequisites: Admission into the Nursing Program.

Division: Nursing and Health Sciences**NUR156 / Nurse Assisting****2 Credits / 2.0 Periods for Lecture**

Role of the nursing assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. Introduction to problem solving process specific to meeting the basic and holistic needs of clients. Professional communication skills essential for the nursing assistant. Nursing interventions to ensure the needs and safety of the client. Specific types of diseases, conditions and alterations in behavior of the client. Principles of nutrition and fluid balance. Special needs of the elder client in the acute and long-term care settings. Basic emergency care skills and procedures. Prerequisites: A grade of C or better in [HCC130 or (HCC130AA, HCC130AB, HCC130AC, HCC130AD, HCC130AE, and HCC130AF)] and HCC145AA. College Placement Exam indicating eligibility for CRE101, or HESI-A2 exam English Composite score of 75% or higher. Corequisites: NUR157. Course Notes: NUR156 and NUR157 must be successfully completed concurrently to meet program requirements.

Division: Nursing and Health Sciences**NUR158 / Nurse Assisting****4.5 Credits / 90.0 Periods for Laboratory, 2.5 Periods for Lecture**

Introduction to the role of the nursing assistant for clients across the wellness/illness continuum within the nurse assisting scope of practice. Includes basic problem solving processes specific to meeting the basic and holistic needs of clients, therapeutic communication skills, interventions to ensure the needs and safety of the client, specific types of diseases, conditions and alterations in behavior of the client. Focus is on the special needs of the older adult client in the acute and long-term care settings, and basic care skills and procedures. Provides opportunity for the development of clinical competency in the performance of selected nurse assisting skills and procedures through participation in the care of clients. Prerequisites: Reading and math assessment as well as completion of all required Health and Safety documents. Course Notes: NUR158 final admission requirements are determined by the Program Director and/or Division Chair and may be based on employer (partner) requirements if the student is employed by the requesting agency. NUR158 meets the application and admission requirements for MaricopaNursing programs.

Division: Nursing and Health Sciences**NUR172 / Nursing Theory and Science II****9 Credits / 11.81 Periods for Laboratory, 5.5 Periods for Lecture**

Utilization of Nurse of the Future competencies to develop knowledge, skills, and attitudes to provide safe, quality patient care across the wellness-illness continuum in selected medical-surgical and mental health patients. Prerequisites: A grade of C or better in (BIO202 and NUR152) or permission of Nursing Department Chair.

Division: Nursing and Health Sciences**NUR252 / Nursing Theory and Science III****9 Credits / 11.81 Periods for Laboratory, 5.5 Periods for Lecture**

Application of critical thinking strategies related to holistic care of the newborn and childbearing patients. Integration of concepts related to holistic care of adults and older adult patients with selected acute and chronic alterations in health. Integration of professional nursing standards in role development. Utilization of previous knowledge of physical, biologic, psycho-social sciences, and the cultural, spiritual aspects of nursing care. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care. Prerequisites: A grade of C or better in [(CRE101 or appropriate district placement) and NUR172 and PSY101] or permission of Nursing Department Chair.

Division: Nursing and Health Sciences**NUR271 / Nursing Theory and Science IV****7 Credits / 9.0 Periods for Laboratory, 4.0 Periods for Lecture**

Integration of critical thinking strategies for complex holistic needs of high-risk clients with multi-system health alterations. Application of strategies related to holistic care of the client with psychiatric/ mental health disorders. Introduction to community based care. Assimilation of professional role into practice. Evaluation of care based on the knowledge of physical, biologic, psycho-social sciences, and the cultural and spiritual beliefs of clients. Development of nurse leadership and management roles. Integration of concepts of nutrition, pharmacology, communication, health promotion, and pathophysiology into nursing care. Prerequisites: A grade of C or better in NUR251 or permission of Nursing Department Chairperson.

Division: Nursing and Health Sciences**NUR283 / Nursing Theory and Science IV****9 Credits / 11.81 Periods for Laboratory, 5.5 Periods for Lecture**

Applies Nurse of the Future competencies to practice and manage care for the child/family unit and adults requiring complex care throughout the wellness/illness continuum, and prepare for transition from student to professional nurse. Prerequisites: A grade of C or better in (BIO205 and NUR252) or permission of Nursing Department Chair.

Division: Nursing and Health Sciences**NUR291 / Nursing Clinical Capstone****2 Credits / 6.0 Periods for Laboratory**

Synthesis of the nursing process to facilitate role transition from student to graduate nurse within a preceptorship experience. Development of nurse leadership and management roles. Prerequisites: A grade of C or better in NUR271 or permission of Nursing Department Chairperson.

Division: Nursing and Health Sciences

Office Automation Systems (OAS)

OAS108 / Business English**3 Credits / 3.0 Periods for Lecture**

Comprehensive coverage of correct use of English grammar including spelling, punctuation, capitalization, and number style mechanics in a business context. Prerequisites: None.

Division: Business and Computing Studies**OAS111AA / Computer Keyboarding I****1 Credit / 1.7 Periods for Lecture & Lab**

Mastery of essential microcomputer keyboarding skills. Emphasis on touch typing of alphabetic and numeric keys and symbols. Prerequisites: None.

Division: Business and Computing Studies

Philosophy (PHI)

PHI101 / Introduction to Philosophy

3 Credits / 3.0 Periods for Lecture

General consideration of human nature and the nature of the universe. Knowledge, perception, freedom and determinism, and the existence of God. Prerequisites: None.



SUN# PHI 1101

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies



PHI103 / Introduction to Logic

3 Credits / 3.0 Periods for Lecture

Informal logic, logical fallacies, elementary symbolic logic, analysis of argument forms, and construction of proofs for validity. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.



SUN# PHI 1103

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

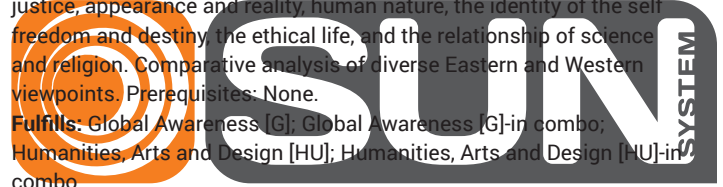
PHI104 / World Philosophy

3 Credits / 3.0 Periods for Lecture

Examination of questions such as the meaning of life and death, social justice, appearance and reality, human nature, the identity of the self and destiny, the ethical life, and the relationship of science and religion. Comparative analysis of diverse Eastern and Western viewpoints. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies



PHI105 / Introduction to Ethics**3 Credits / 3.0 Periods for Lecture**

A survey of ethical theory in Western Philosophy, including the major normative theories and selected metaethical theories. Prerequisites: None.



SUN# PHI 1105

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI201 / History of Ancient Philosophy**3 Credits / 3.0 Periods for Lecture**

Historical survey of the intellectual history of the Greco-Roman world, focusing on the philosophical tradition and social/historical context.

Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI212 / Contemporary Moral Issues**3 Credits / 3.0 Periods for Lecture**

Philosophical consideration of such moral issues as civil disobedience, preferential treatment, abortion, privacy, sexual morality, and poverty and hunger. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI213 / Medical and Bio-Ethics**3 Credits / 3.0 Periods for Lecture**

A philosophical consideration of moral problems that arise in relation to medicine and biology, e.g., death, patient's rights and biological experimentation. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI214 / Business Ethics**3 Credits / 3.0 Periods for Lecture**

Philosophical consideration of moral problems arising in business practice, including corporate responsibility, government regulation, hiring practices, and advertising. Application to both the United States and other countries. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI215 / Legal Ethics**3 Credits / 3.0 Periods for Lecture**

Philosophical considerations of moral problems encountered in the law and the legal system by legal professionals and other involved parties. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI216 / Environmental Ethics**3 Credits / 3.0 Periods for Lecture**

Philosophical consideration of diverse theories and perspectives on the environment, and application of these theories to global moral issues such as animal rights, preservation of wilderness and species, population, world hunger and poverty, and air and water pollution. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI218 / Philosophy of Sexuality**3 Credits / 3.0 Periods for Lecture**

Philosophical examination of sexuality in human life. Historical and critical survey of philosophical and theological views. Comparison and evaluation of contemporary theories about the nature of sexual desire and sexual acts. Implications of theories for contemporary moral problems. Prerequisites: A grade of C or better in ENG101 or ENG107 or permission of Instructor. Course Notes: Course may contain adult content. All students under 18 years old are required to have a signed parental consent form on file, which is on the back of the "Students Under The Age of 18" Enrollment Form.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI224 / Political Philosophy**3 Credits / 3.0 Periods for Lecture**

Predominant figures and theories in Euro-American political philosophy from Plato to contemporary social/political philosophers. Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI233AA / Metaphysics: An Introduction**3 Credits / 3.0 Periods for Lecture**

Metaphysical issues which have concerned philosophers from the time of the ancient Greeks until the present; topics selected from the following: the nature and function of metaphysics, reality, universals, space, time and the infinity, rational theology, the nature of the mind, causation and the nature of things. Prerequisites: A grade of C or better in PHI101 or permission of instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

PHI233AB / Theory of Knowledge**3 Credits / 3.0 Periods for Lecture**

Epistemological issues which have concerned philosophers from the time of the ancient Greeks until the present. Topics selected from the following: the technical terminology of epistemology, the nature of knowledge, knowledge of past events, knowledge of other minds, and knowledge of physical objects. Prerequisites: A grade of C or better in PHI101 or permission of instructor.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

PHI233AC / Philosophical Psychology**3 Credits / 3.0 Periods for Lecture**

Philosophical principles and tools used in analyzing the nature of the mind. Prerequisites: A grade of C or better in PHI101 or permission of instructor.

Division: Language, Humanits, Learng Centr&Informtn Studies

PHI244 / Philosophy of Religion**3 Credits / 3.0 Periods for Lecture**

Religious language, the existence of God, miracles, criticisms and human destiny. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

PHI245 / Introduction to Eastern Philosophy**3 Credits / 3.0 Periods for Lecture**

Fundamental theories of Indian and Chinese metaphysics, epistemology, ethics and aesthetics. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

PHI250 / Ethics in Higher Education**3 Credits / 3.0 Periods for Lecture**

Philosophical consideration of and diverse perspectives on moral problems that arise in higher education, including academic freedom, hiring practices, diversity, sexual harassment, community responsibilities, stewardship of public trust, intellectual property, and other related issues. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

PHI251 / Philosophy of Sport**3 Credits / 3.0 Periods for Lecture**

General consideration of sport in its philosophical dimensions. Possible topics include the Zen of sport, strategy and competition, sport, practice, and play, and cheating versus fair play. Prerequisites:None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

PHI282AC / Service Learning Experience in Philosophy**3 Credits / 3.0 Periods for Laboratory**

Service learning field experience within private/public agencies, and citizen volunteer groups. Prerequisites: A grade of C or better in PHI101 or permission of instructor. Course Notes: PHI282AC may be repeated for a total of six (6) PHI282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog.

Division: Language, Humanits, Learng Centr&Informtn Studies

Physical Education (PED)

PED101BC / Boot Camp**1 Credit / 2.0 Periods for Lecture & Lab**

Vigorous physical and mental conditioning incorporating cardiovascular, core fitness, strength training, and flexibility. Emphasis will be placed on proper body mechanics and safety. Prerequisites: None. Course Notes: PED101BC may be repeated for credit.

Division: Health Science and Public Service

PED101BS / Body Sculpting**1 Credit / 2.0 Periods for Lecture & Lab**

Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress. Prerequisites: None. Course Notes: PED101BS may be repeated for credit.

Division: Health Science and Public Service

PED101CY / Cycling - Indoor**1 Credit / 2.0 Periods for Lecture & Lab**

Basic skills for bike setup and proper body mechanics. Increase leg strength, lung capacity, and metabolism. Prerequisites: None. Course Notes: PED101CY may be repeated for credit.

Division: Health Science and Public Service

PED101FL / Fitness For Life**1 Credit / 2.0 Periods for Lecture & Lab**

Learn the basics of designing and implementing a personalized fitness program to meet your needs in the areas of Cardiovascular Fitness, Weight Control, Muscular Strength and Flexibility. Prerequisites: None. Course Notes: PED101FL may be repeated for credit.

Division: Health Science and Public Service

PED101GF / Group Fitness/Aerobics**1 Credit / 2.0 Periods for Lecture & Lab**

Group exercise incorporating a variety of equipment to increase respiration, heart rates, strength, and flexibility. Prerequisites: None. Course Notes: PED101GF may be repeated for credit.

Division: Health Science and Public Service

PED101HH / Hip Hop**1 Credit / 2.0 Periods for Lecture & Lab**

Basic skills of hip hop with instruction, practice, and performance including proper body mechanics, choreography, and behavioral competencies. Prerequisites: None. Course Notes: PED101HH may be repeated for credit.

Division: Health Science and Public Service

PED101KB / Kickboxing**1 Credit / 2.0 Periods for Lecture & Lab**

Techniques to increase muscular endurance and strength, enhance flexibility and increase body awareness and self-confidence. Jabs, kicks, and blocks will be used in this martial arts-based workout. Prerequisites: None. Course Notes: PED101KB may be repeated for credit.

Division: Health Science and Public Service

PED101LD / Latin Dancing**1 Credit / 2.0 Periods for Lecture & Lab**

Spicy, energetic style of dance. Cha Cha, Merengue, Salsa, Rumba, and Bolero. Partners rotate. Prerequisites: None. Course Notes: PED101LD may be repeated for credit.

Division: Health Science and Public Service

PED101PC / Physical Conditioning**1 Credit / 2.0 Periods for Lecture & Lab**

Exercise program with access to free weights, strength machines and cardio equipment. Prerequisites: None. Course Notes: PED101PC may be repeated for credit.

Division: Health Science and Public Service

PED101PS / Pilates**1 Credit / 2.0 Periods for Lecture & Lab**

Mat-based exercise system focused on improving flexibility and strength for the total body. Teaches core control and stabilization while improving postural alignment. Prerequisites: None. Course Notes: PED101PS may be repeated for credit.

Division: Health Science and Public Service

PED101RT / Resistance Training for Improved Sports Performance**1 Credit / 2.0 Periods for Lecture & Lab**

Introduction to sport-specific resistance training programs to enhance athletic performance. Includes focus on advanced assessment and sport-related resistance training, including Olympic lifting with a qualified instructor. Prerequisites: None. Course Notes: PED101RT may be repeated for credit.

Division: Health Science and Public Service

PED101SR / Stretch and Relaxation**1 Credit / 2.0 Periods for Lecture & Lab**

A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being. Prerequisites: None. Course Notes: PED101SR may be repeated for credit.

Division: Health Science and Public Service

PED101ST / Strength Training**1 Credit / 2.0 Periods for Lecture & Lab**

Introduction to techniques of basic weight training, concentrating on incorporating an exercise regimen for increased strength. Prerequisites: None. Course Notes: PED101ST may be repeated for credit.

Division: Health Science and Public Service

PED101TC / Tai Chi**1 Credit / 2.0 Periods for Lecture & Lab**

Fundamentals of Tai Chi including moves, breathing and meditation. Prerequisites: None. Course Notes: PED101TC may be repeated for credit.

Division: Health Science and Public Service

PED101TD / Tap Dance**1 Credit / 2.0 Periods for Lecture & Lab**

Introduction to Tap a step dance performed with the use of shoes with metal tips making rhythmic sounds. Prerequisites: None. Course Notes: PED101TD may be repeated for credit.

Division: Health Science and Public Service

PED101TX / Suspension Training**1 Credit / 2.0 Periods for Lecture & Lab**

Suspension training using TRX or similar equipment. Designed to develop strength, balance, flexibility and core stability. Incorporates a variety of exercises using adjustable positions, stability levels and intensities. Suitable for all skill levels. Prerequisites: None. Course Notes: PED101TX may be repeated for credit.

Division: Health Science and Public Service

PED101YG / Gentle Yoga**1 Credit / 2.0 Periods for Lecture & Lab**

Focuses on the use of such props as blankets, blocks, and chairs to modify traditional Yoga poses, enabling participation with moderate effort and without strain; suitable for all levels but especially for students needing a slower pace. Prerequisites: None. Course Notes: PED101YG may be repeated for credit.

Division: Health Science and Public Service

PED101YH / Hatha Yoga**1 Credit / 2.0 Periods for Lecture & Lab**

Combination of traditional and flow style yoga that utilizes breathing, yoga poses, relaxation and meditation to create balance and inner peace. Prerequisites: None. Course Notes: PED101YH may be repeated for credit.

Division: Health Science and Public Service

PED101YO / Yoga**1 Credit / 2.0 Periods for Lecture & Lab**

Promotion of overall health by strengthening muscles and stimulating glands and organs. Basic postures, breathing and relaxation techniques. Prerequisites: None. Course Notes: PED101YO may be repeated for credit.

Division: Health Science and Public Service

PED101YP / Power Yoga**1 Credit / 2.0 Periods for Lecture & Lab**

Yoga postures performed in a dynamic series designed to gain strength, add flexibility, release toxins, This is a vigorous, athletic form of yoga. Prerequisites: None. Course Notes: PED101YP may be repeated for credit.

Division: Health Science and Public Service

PED101YR / Restorative Yoga**1 Credit / 2.0 Periods for Lecture & Lab**

Gentle form of Yoga poses utilizing props to create fully supported postures; focuses on relaxation and involves non-rigorous physical activity, providing rest and recovery and promoting the restoration of tranquility; suitable for all levels. Prerequisites: None. Course Notes: PED101YR may be repeated for credit.

Division: Health Science and Public Service

PED101ZU / Zumba Fitness**1 Credit / 2.0 Periods for Lecture & Lab**

Uses easy to follow dance movements and high energy music to enhance cardiovascular fitness and to promote self-esteem and confidence in physical movement. Provides an accepting and encouraging atmosphere for students of all levels to participate in a group fitness class. Prerequisites: None. Course Notes: PED101ZU may be repeated for credit.

Division: Health Science and Public Service

PED102HH / Hip Hop - Intermediate**1 Credit / 2.0 Periods for Lecture & Lab**

Intermediate level dance instruction and practice in the skills of hip hop. Emphasis on performance including proper body mechanics, choreography, and behavioral competencies. Prerequisites: None. Prior experience recommended. Course Notes: PED102HH may be repeated for credit.

Division: Health Science and Public Service

PED102TD / Tap Dance-Intermediate**1 Credit / 2.0 Periods for Lecture & Lab**

Tap dance steps at the intermediate level. Some experience welcomed. Prerequisites: None. Prior experience recommended.

Division: Health Science and Public Service

PED103BS / Body Sculpting**0.5 Credits / 1.0 Periods for Lecture & Lab**

Stretch and strengthen. Emphasizes increasing fitness, muscle tone, and body flexibility. Great for reducing stress. Prerequisites: None. Course Notes: PED103BS may be repeated for credit.

Division: Health Science and Public Service

PED103SR / Stretch and Relaxation**0.5 Credits / 1.0 Periods for Lecture & Lab**

A mat-based stretching class with guided meditation. Stretching increases flexibility and relieves stress, promoting an overall sense of well being. Prerequisites: None. Course Notes: PED103SR may be repeated for credit.

Division: Health Science and Public Service

PED115 / Lifetime Fitness**2 Credits / 4.0 Periods for Lecture & Lab**

Increase personal fitness, strength, and vitality. Current principles of cardiovascular exercise, weight training, flexibility, and balance exercises applicable to lifetime fitness goals. Personalized fitness plans developed and implemented with support of highly trained fitness professionals. Techniques to make sessions more effective and enjoyable. Prerequisites: None. Course Notes: PED115 may be repeated for a total of eight (8) credit hours.

Division: Health Science and Public Service

Physical Geography (GPH)

GPH111 / Introduction to Physical Geography Lecture**3 Credits / 3.0 Periods for Lecture**

Earth's physical processes and impacts on human environments via the atmosphere, biosphere, lithosphere and hydrosphere. Topics include severe weather, climate change, biomes and ecosystems, landform processes; mountain building and erosion by rivers, glaciers, waves and wind. Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GPH112

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GPH112 / Introduction to Physical Geography Lab**1 Credit / 3.0 Periods for Laboratory**

Earth's physical processes and impacts on the human environment via the atmosphere, biosphere, lithosphere and hydrosphere. Practical experiences include earth-sun relationships, weather, climate, biomes, landform processes; mountain building and erosion by rivers, glaciers, waves and wind, topographic maps. Prerequisites: A grade of C or better in GPH111 or Corequisites: GPH111. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with GPH111.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GPH113 / Introduction to Physical Geography**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Earth's physical processes and impacts on human environments via the atmosphere, biosphere, lithosphere and hydrosphere. Topics and practical experiences include severe weather, climate change, biomes and ecosystems, landform processes; mountain building and erosion by rivers, glaciers, waves and wind, topographic maps. Prerequisites: None.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GPH211 / Landform Processes**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Geographic characteristics of landforms and earth surface processes emphasizing erosion, transportation, deposition and implications for human management of the environment. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GPH212 / Introduction to Meteorology I**3 Credits / 3.0 Periods for Lecture**

Atmospheric processes and elements. General and local circulation, heat exchange and atmospheric moisture. Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GPH214

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GPH213 / Climate and Weather**3 Credits / 3.0 Periods for Lecture**

Study of atmospheric phenomena over periods of time measured in months, years or longer. Includes average weather conditions, infrequent and unusual types of weather, and the influence of weather on the cultural and human landscape. Prerequisites: None. Course Notes: General Education Designation: Natural Sciences (General) - [SG] in combination with: GPH215.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Physical Sciences and Engineering

GPH214 / Introduction to Meteorology Laboratory I**1 Credit / 3.0 Periods for Laboratory**

Basic meteorological and climatological measurements. Prerequisites: None. Corequisites: GPH212. Course Notes: General Education Designation: Natural Sciences (Quantitative) - [SQ] in combination with: GPH212

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

GPH215 / Climate and Weather Laboratory**1 Credit / 3.0 Periods for Laboratory**

A mathematical, statistical, and spatial analysis of climatological phenomena. Prerequisites: None. Corequisites: GPH213. Course Notes: General Education Designation: Natural Sciences (General) - [SG] in combination with: GPH213

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Physical Sciences and Engineering

GPH267 / Extreme Weather and Climate**3 Credits / 3.0 Periods for Lecture**

Emphasis on interaction of physical and cultural geography in potentially hazardous weather and climate processes. Exploration of hazard risk analysis. Prerequisites: A grade of C or better in ENG101 or ENG107.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Physical Sciences and Engineering

Physics (PHY)

PHY101 / Introduction to Physics

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

A survey of physics emphasizing applications of physics to modern life. Prerequisites: A grade of C or better in MAT090, or higher level mathematics course, or eligibility for MAT120 or higher as indicated by appropriate placement. Course Notes: Students may receive credit for only one of the following: PHY101 or PHY101AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY101AA / Introduction to Physics

5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture

A survey of physics emphasizing applications of physics to modern life. Prerequisites: A grade of C or better in MAT090, or higher level mathematics course, or eligibility for MAT120 or higher as indicated by appropriate placement. Course Notes: Students may receive credit for only one of the following: PHY101 or PHY101AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY111 / General Physics I

4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture

Includes motion, energy, and properties of matter. Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division. Course Notes: PHY111 is recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA.



SUN# PHY 1111

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY111AA / General Physics I

5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture

Includes motion, energy, and properties of matter. Prerequisites: A grade of C or better in MAT182 or MAT187 or MAT220 or MAT221 or eligibility for MAT220 as indicated by appropriate placement or one year high school Trigonometry with a grade of C or better or permission of Department or Division. Course Notes: Recommended for preprofessional and suggested for certain other majors. Students may receive credit for only one of the following: PHY111 or PHY111AA.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY112 / General Physics II**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Includes electricity, electromagnetism, and modern physics.

Prerequisites: A grade of C or better in PHY111.



SUN# PHY 1112

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo**Division:** Physical Sciences and Engineering**PHY115 / University Physics I****5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture**

General physics course using calculus to develop the principles of mechanics and thermodynamics. Recommended for majors in the sciences and mathematics. Required for Engineering majors.

Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. Corequisites: MAT230 or MAT231. One year of High School physics or PHY111 and PHY112 is strongly recommended.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo**Division:** Physical Sciences and Engineering**PHY116 / University Physics II****5 Credits / 3.0 Periods for Laboratory, 4.0 Periods for Lecture**

Principles of electricity, magnetism, waves, and optics. Required for Engineering majors. A grade of C or better required in all Prerequisites.

Prerequisites: (MAT230 or MAT231) and PHY115. Prerequisite or

Corequisites: MAT240 or MAT241 or permission of Instructor.

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo**Division:** Physical Sciences and Engineering**PHY121 / University Physics I: Mechanics****4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Kinematics, Newton's laws, work, energy, momentum, conservation laws, dynamics of particles, solids, fluids, mechanical waves, and sound.

Prerequisites: A grade of C or better in MAT220 or MAT221 or permission of Department or Division. One year of High School physics or PHY111 and PHY112 suggested but not required.



SUN# PHY 1121

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo**Division:** Physical Sciences and Engineering

PHY131 / University Physics II: Electricity and Magnetism**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Prerequisites: A grade of C or better in MAT230 or MAT231 or permission of Department or Division and PHY121. Corequisites: MAT241 or permission of Department or Division.



SUN# PHY 1131

Fulfills: Natural Sciences Quantitative [SQ]; Natural Sciences Quantitative [SQ]-in combo

Division: Physical Sciences and Engineering

PHY241 / University Physics III: Thermodynamics, Optics, and Wave Phenomena**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Heat, entropy, and laws of thermodynamics; wave propagation; geometrical and physical optics; introduction to special relativity.

Prerequisites: A grade of C or better in PHY116 or PHY131 or permission of Instructor.

Division: Physical Sciences and Engineering

PHY294AB / Special Topics in Physics**1 Credit / 1.0 Periods for Lecture**

Conceptual, experimental, and computational aspects of a special topic in physics. Prerequisites: Permission of Department or Division. Course Notes: PHY294AB may be repeated for credit.

Division: Physical Sciences and Engineering

Political Science (POS)

POS100 / Introduction to Political Science**3 Credits / 3.0 Periods for Lecture**

Introduction to the discipline of political science and its relation to other disciplines with emphasis on the major philosophies and institutions of government. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

POS101 / Current Issues**1 Credit / 1.0 Periods for Lecture**

Introduction to current issues in politics, economics, social relations, foreign affairs. Presentations by local, state and national civic and cultural leaders. Prerequisites: None. Course Notes: POS101 may be repeated for a total of two (2) credit hours.

Division: Social & Behavioral Sciences

POS110 / American National Government**3 Credits / 3.0 Periods for Lecture**

Study of the historical backgrounds, governing principles, and institutions, of the national government of the United States.

Prerequisites: None.



SUN# POS 1110

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences



POS113 / United States and Arizona Social Studies**3 Credits / 3.0 Periods for Lecture**

Overview of government, history, and geography of the United States and Arizona. Includes the relationship of government to the United States economic system as well as the influences and developments that have shaped U.S. and Arizona history. Also covers geographical systems, regions, and study techniques. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

POS114 / World Social Studies**3 Credits / 3.0 Periods for Lecture**

Introduction to the world from the integrated social science perspectives of history, geography, and government. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Global Awareness [G]; Global Awareness [G]-in combo; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Social & Behavioral Sciences

POS115 / Issues in American Politics**3 Credits / 3.0 Periods for Lecture**

Examination of major issues in current affairs in the fields of politics, economics, social relations, foreign affairs, aesthetics, and others through the reading and viewing of secondary information sources. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

POS120 / World Politics**3 Credits / 3.0 Periods for Lecture**

Introduction to the principles and issues relating to the study of international relations. Evaluation of the political, economic, national, and transnational rationale for international interactions. Prerequisites: None.



SUN# POS 1120

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

POS125 / Issues in World Politics**3 Credits / 3.0 Periods for Lecture**

Contemporary issues and factors in international relations. Stress conditions in civil order, trade, and international institutions.

Prerequisites: None. **Course Notes:** POS125 may be repeated for a total of six (6) credit hours.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

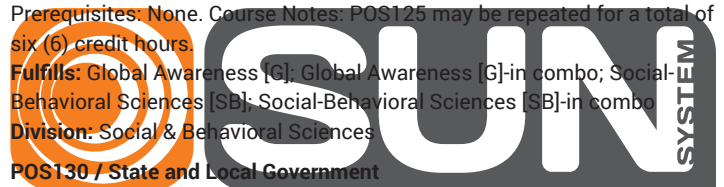
Division: Social & Behavioral Sciences

POS130 / State and Local Government**3 Credits / 3.0 Periods for Lecture**

Survey of state and local government in the United States. Special attention on Arizona State government. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences



POS140 / Comparative Government**3 Credits / 3.0 Periods for Lecture**

Overview and evaluation of the sub-field of comparative politics. Covers various national governments from around the world: their structure, system, method of governance. Examines methods of assessing these governments. Prerequisites: None.



SUN# POS 2204

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

POS180 / United Nations Studies**3 Credits / 3.0 Periods for Lecture & Lab**

Historical origins, structural makeup, political and operational characteristics, and legal activities of the United Nations. Analysis of the overall institution's ongoing utility, productivity and creativity. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Social & Behavioral Sciences

POS210 / Political Ideologies**3 Credits / 3.0 Periods for Lecture**

Leading political ideas and belief systems, e.g., Marxism, liberalism, conservatism, theories of democracy, and alternative futures. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

POS220 / U.S. and Arizona Constitution**3 Credits / 3.0 Periods for Lecture**

Examination of the United States Constitution and the constitution and government of the State of Arizona. Prerequisites: None.

Division: Social & Behavioral Sciences

POS221 / Arizona Constitution**1 Credit / 1.0 Periods for Lecture**

Examination of the Constitution of the State of Arizona. Equivalent to the second part of POS220. May not enroll in POS220 and POS221 concurrently. Prerequisites: None.

Division: Social & Behavioral Sciences

POS222 / U.S. Constitution**2 Credits / 2.0 Periods for Lecture**

Examination of the United States Constitution. Equivalent to the first part of POS220. May not enroll in POS220 and POS222 concurrently. Prerequisites: None. Course Notes: Students may not enroll in POS220 and POS222 concurrently.

Division: Social & Behavioral Sciences

POS223 / Civil Rights and Liberties**3 Credits / 3.0 Periods for Lecture**

The historic background and current status of major civil rights and civil liberties issues in the United States. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

POS281AB / Public Policy/Service Internship**3 Credits / 3.0 Periods for Laboratory**

Field experience in community service, public policy or public service. Prerequisites: Minimum of 15 credit hours at college granting internship with minimum GPA of 3.0 and permission of Instructor. Prerequisites or Corequisites: POS280. Course Notes: POS281AB may be repeated for a total of nine (9) POS281 credit hours; may not repeat specific internship assignment.

Division: Social & Behavioral Sciences

POS282AA / Volunteerism for Political Science: A Service Learning Experience**1 Credit / 1.0 Periods for Laboratory**

Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. Prerequisites: Permission of Instructor. Course Notes: POS282AA may be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog.

Division: Social & Behavioral Sciences

POS282AB / Volunteerism for Political Science: A Service Learning Experience**2 Credits / 2.0 Periods for Laboratory**

Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. Prerequisites: Permission of Instructor. Course Notes: POS282AB may be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog.

Division: Social & Behavioral Sciences

POS282AC / Volunteerism for Political Science: A Service Learning Experience

3 Credits / 3.0 Periods for Laboratory

Service-learning field experience within government agencies, political organizations, citizen advocacy groups, and human service organizations/agency. Prerequisites: Permission of Instructor. Course Notes: May be repeated for a total of four (4) POS282 credit hours; may not repeat specific agency assignment for more than two (2) credit hours. Standard grading available according to procedures outlined in catalog.

Division: Social & Behavioral Sciences

POS285 / Political Issues and Public Policy

3 Credits / 3.0 Periods for Lecture & Lab

Introduction to public policy, how policy is made, and how public policy decisions are affected. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

Power Plant Technology (PPT)

PPT120 / Energy Industry Fundamentals

3 Credits / 3.0 Periods for Lecture

Various types of energy and their conversion to useable energy such as electrical power. How generated electrical power is transmitted and distributed to the point of use. Prerequisites: None.

Division: Aviation and Applied Technology

Psychology (PSY)

PSY101 / Introduction to Psychology

3 Credits / 3.0 Periods for Lecture

Overview of the study and methods of psychological science. Includes an introduction to subfields such as biopsychology, learning, memory, development, social, and psychological disorders. Prerequisites: None.



SUN# PSY 1101

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY123 / Psychology of Parenting

3 Credits / 3.0 Periods for Lecture

The demonstration and application of psychological principles to parenting and the development and guidance of children and adolescents. Prerequisites: None.

Division: Social & Behavioral Sciences

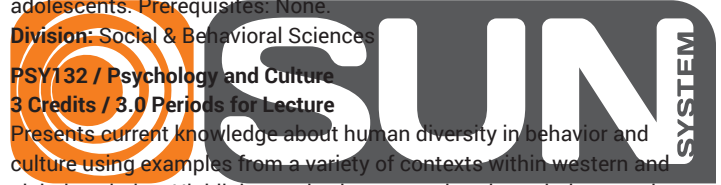
PSY132 / Psychology and Culture

3 Credits / 3.0 Periods for Lecture

Presents current knowledge about human diversity in behavior and culture using examples from a variety of contexts within western and global societies. Highlights topics in cross-cultural psychology, such as intergroup relations, diverse cognitive styles, ethnocentrism, gender, personality, emotion, language, communication, work and health. The role of enculturation throughout the lifespan will be explored to increase awareness of how behavioral and cognitive principles affect interactions in a multicultural world. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences



PSY156 / Understanding Death and Dying**3 Credits / 3.0 Periods for Lecture**

Designed to give the student an understanding of the research and theories of death, dying, bereavement process, and aspects of end-of-life care and decision-making. Prerequisites: None.

Division: Social & Behavioral Sciences

PSY157 / African/Black Psychology**3 Credits / 3.0 Periods for Lecture**

Historical overview of the development of Black Psychology and the African-American "frame of reference." Includes topics such as family, psychological assessment, mental health, male/female relationships, personality and community development as well as educational, ethical and contemporary issues. Critical examination of psycho-cultural forces which have helped to shape and determine the unique thought, styles, behavior of African-Americans and to gain a greater appreciation of the theories, research, writings, and activities of Black Psychologists. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Social & Behavioral Sciences

PSY215 / Sports Psychology**3 Credits / 3.0 Periods for Lecture**

Application of the physiological, behavioral, social, cognitive, and humanistic perspectives in psychology to sport. Includes topics such as optimal performance, correlation, motivation, co-action effect, self-actualization, psycho-behavioral techniques, self-efficacy, and the general health benefits of sport participation. Prerequisites: None.

Division: Social & Behavioral Sciences

PSY218 / Health Psychology**3 Credits / 3.0 Periods for Lecture**

Behavioral and mental foundations of health, wellness, illness, and disease, and psychological dimensions of medical intervention. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY225 / Psychology of Religion**3 Credits / 3.0 Periods for Lecture**

Provides an introduction to the history, varieties and theories of the psychology of religion from an empirical, research-based perspective. Specific areas of study include the role of gender, age, socioeconomic status, and personality on religious experience, the effects of religion and prayer on mental and physical health, the development of religious thought and behavior over the lifespan, and the social psychology of new religious movements. In addition, the role of cultural differences on religious attitudes both within the USA and around the world is also addressed. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY230 / Introduction to Statistics**3 Credits / 3.0 Periods for Lecture**

An introduction to basic concepts in descriptive and inferential statistics, with emphasis upon application to psychology. Consideration given to the methods of data collection, sampling techniques, graphing of data, and the statistical evaluation of data collected through experimentation. Required of psychology majors. Prerequisites: A grade of C or better in (PSY101 and eligibility for MAT14+ or higher as indicated by appropriate district mathematics placement) or permission of Instructor.

Fulfills: Computer/Statistics/Quantitative Applications [CS]; Computer/Stats/Quantitative Apps [CS]-in combo

Division: Social & Behavioral Sciences

PSY231 / Laboratory for Statistics**1 Credit / 2.0 Periods for Laboratory**

Applications of inferential and descriptive statistics to statistical software in the field of psychology. Prerequisites: None. Corequisites: PSY230.

Division: Social & Behavioral Sciences

PSY235 / Psychology of Gender**3 Credits / 3.0 Periods for Lecture**

To assess historical and psychological perspectives on women and men and to evaluate contemporary viewpoints regarding the psychology of women and men. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY240 / Developmental Psychology**3 Credits / 3.0 Periods for Lecture**

Human development from conception through death. Includes biological, physical, cognitive, emotional, and sociocultural development across various ages. Prerequisites: A grade of C or better in PSY101 or permission of Instructor. Course Notes: Recommended for students majoring in nursing, education, behavioral, pre-med, and psychology.

Division: Social & Behavioral Sciences

PSY241 / Understanding and Changing Behavior**3 Credits / 3.0 Periods for Lecture**

Theory and methods for observing, analyzing, and modifying behavior. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY243 / The Psychology of Developmental Disabilities**3 Credits / 3.0 Periods for Lecture**

The interrelationships among the physical, intellectual, social, and psychological aspects of developmental disabilities (DD). Various service approaches, policies, and programs designed to foster an adequate adjustment for individuals with DD and their families. Values and beliefs relating to persons with developmental disabilities. Prerequisites: A grade of C or better in PSY101.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY250 / Social Psychology**3 Credits / 3.0 Periods for Lecture**

The scientific study of how people's thoughts, feelings, and behaviors are influenced by other people and situations. Includes how we think about ourselves and others, persuasion and influence, sexual and romantic attraction, friendship and helping others, aggression and prejudice. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY260 / Psychology of Personality**3 Credits / 3.0 Periods for Lecture**

Introduction to theories of personality with emphasis upon application of specific theories towards the understanding of individuals. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY262 / Positive Psychology: The Science of Well-Being**3 Credits / 3.0 Periods for Lecture**

Overview and application of psychological principles based on strengths and resilience of human beings as opposed to dysfunction and symptoms of mental disorders. Topics include happiness, relationships, resilience, optimism, well-being, and brain research explaining positive emotions. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY266 / Psychological Disorders**3 Credits / 3.0 Periods for Lecture**

Distinguishes between healthy psychological functioning and psychological disorders. Includes topics in psychopathology such as problems with anxiety and depression, eating disorders, substance-use, schizophrenia, sexuality, and personality. Also covers causes and treatments of psychological disorders. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Division: Social & Behavioral Sciences

PSY267 / Introduction to Forensic Psychology**3 Credits / 3.0 Periods for Lecture**

Overview of the practice of psychology in the law, by the law, and of the law. Focuses on the complementary functions and distinctions between psychology and the legal justice system. Topics include, but are not limited to, criminal investigations, risk and level of danger, competency, interrogations, confessions, assessment, eyewitness testimony, child custody, and domestic violence. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Division: Social & Behavioral Sciences

PSY275 / Biopsychology**4 Credits / 5.0 Periods for Lecture & Lab**

Biological foundations of sensation, perception, motivation, emotion, cognition and psychopathology. Designed for students in the life sciences. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Social & Behavioral Sciences

PSY277 / Psychology of Human Sexuality**3 Credits / 3.0 Periods for Lecture**

Survey of psychological and physiological aspects of human sexual behavior. Emphasis placed on the integration of the cognitive, emotional, and behavioral factors in sexual functioning. Prerequisites: A grade of C or better in PSY101. Course Notes: PSY277 course may contain adult content. All students under the age of 18 are required to have a signed parental consent form on file, which is on the back of the Under the Age of 18 Enrollment Form.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY280 / Industrial/Organizational Psychology**3 Credits / 3.0 Periods for Lecture**

The application of psychological principles to business and industry practices including organizational structure, leadership, personnel, employee stress and conflict, workplace conditions and job performance. Prerequisites: A grade of C or better in PSY101 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY290AB / Research Methods**4 Credits / 3.0 Periods for Laboratory, 3.0 Periods for Lecture**

Planning, execution, analysis, and written reporting of psychological research using American Psychological Association guidelines (APA). Surveys the literature, procedures, and instruments in representative areas of psychological research. A grade of C or better required in all Prerequisites. Prerequisites: ENG101 or ENG107. Prerequisites or Corequisites: PSY230 or permission of Instructor.



SUN# PSY 2290

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Social & Behavioral Sciences

**PSY290AC / Research Methods Laboratory****1 Credit / 2.0 Periods for Laboratory**

Laboratory experience in support of PSY290AC lecture course. A grade of C or better required in all Prerequisites. Prerequisites: ENG101 or ENG107. Prerequisites or Corequisites: PSY230 or permission of Instructor. Corequisites: PSY290AC lecture course.



SUN# PSY 2290

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Natural Sciences General [SG]; Natural Sciences General [SG]-in combo

Division: Social & Behavioral Sciences

PSY292 / Psychology of Altered States of Consciousness**3 Credits / 3.0 Periods for Lecture**

Examines phenomena and history of altered states of consciousness. Surveys scientific principles, methods and applications in altered states research. Reviews current psychological research in topics related to sensory deprivation, daydreaming, meditation, hypnosis, sleep and dreams, and the effects of drugs. Prerequisites: A grade of C or better in PSY101 or permission of instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

PSY298AC / Special Projects**3 Credits / 3.0 Periods for Laboratory**

Organized and tailored around the interests and needs of the individual student. Structured to provide an atmosphere of individualized research and study paralleled by professional expertise and guidance. Professional-type facilities and equipment available for student use. Allows the best aspects of independent study and individualized learning to be combined to maximize student development. Prerequisites: Permission of Program Director or Instructor.

Division: Social & Behavioral Sciences

Public Administration (PAD)

PAD100 / 21st Century Public Policy and Service

3 Credits / 3.0 Periods for Lecture

Introduction to topics pertaining to public policy and public service in the 21st century. Includes formation, implementation, and evaluation procedures for public policy, as well as roles and agendas of policy makers and public administrators. Also covers careers in public service/administration and an evaluation of essential skills necessary for a career in public service. Prerequisites: None.

Division: Business and Computing Studies

PAD200 / Public Affairs Economics

3 Credits / 3.0 Periods for Lecture

Introduction to the use of macroeconomic and microeconomic principles concerning public affairs and social issues. Includes the role of economics in societal development and public policies in addition to the effects of unemployment and inflation. Also covers measurement of, causes for and societal responses to poverty. Prerequisites: A grade of C or better in PAD100 or permission of Instructor.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Business and Computing Studies

Reading (RDG)

RDG081 / Reading Improvement

3 Credits / 3.0 Periods for Lecture

Designed to improve basic reading skills. Includes word recognition, interdisciplinary vocabulary development, recognizing patterns of organization, interpreting inference. Reviews interpreting graphic materials. Emphasis on identifying main ideas and related details. Prerequisites: Appropriate reading placement test score, or grade of "C" or better in RDG071, or permission of Instructor.

Division: Composition, Creative Writing, and Literature

RDG100 / Successful College Reading

3 Credits / 3.0 Periods for Lecture

Emphasis on reading study strategies for any introductory class in any subject area. Introduction to Learning Management System (LMS), how to successfully read course textbooks and assessments, how to navigate information technology and development of academic vocabulary. Prerequisites: A grade of C or better in ALT100, or RDG081, or appropriate reading placement or permission of Instructor. Corequisites: Any 100-level course in another content area or permission of Instructor. Course Notes: RDG100 may be repeated for a total of twelve (12) credit hours.

Division: Composition, Creative Writing, and Literature

RDG100LL / Disciplinary Literacy Lab

1 Credit / 3.0 Periods for Laboratory

Supplemental instruction for college-level discipline courses. Focus on developing effective reading processes to address a range of literacy needs including reading, writing, digital, numerical, financial and informational literacies. Prerequisites: None. Corequisites: Any 100-level course in another content area or permission of Instructor.

Division: Composition, Creative Writing, and Literature

Recreation (REC)

REC120 / Leisure and the Quality of Life

3 Credits / 3.0 Periods for Lecture

Overview of the historical, psychological, social, and cultural aspects of play, leisure, and recreation and their role in contemporary society. Nature of play and leisure behavior in human development within different cultures and the contribution play, recreation, and leisure make to the quality of life for individuals in today's society. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Health Science and Public Service

Religious Studies (REL)

REL100 / World Religions

3 Credits / 3.0 Periods for Lecture

The development of various religions from the prehistoric to modern times. Political, economic, social and geographic relationships among world religions. Consideration of both Eastern and Western religions. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL101 / Introduction to Religion

3 Credits / 3.0 Periods for Lecture

Various religious expressions of humankind. Focuses on basic religious themes common to religions, such as encounter with the Holy, search for self and community, mystical illumination, spiritual discipline. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL151 / Religion in the Hispanic World

3 Credits / 3.0 Periods for Lecture

Survey of various religious traditions within Spain and the Spanish-settled world. Considers the impact of and impact on both major world religions and indigenous traditions. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL200 / Religion and Film

3 Credits / 3.0 Periods for Lecture

A course examining the relationships between religion and film, with particular attention to representations of religious beliefs, institutions, and practices in film and their reception by various audiences. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL202 / Classics of Asian Religions**3 Credits / 3.0 Periods for Lecture**

Academic study of selected works from Hindu, Buddhist, Taoist and Confucian traditions. Study of cultural and concepts of the world, history, culture, and human nature as represented in these works. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL203 / American Indian Religions**3 Credits / 3.0 Periods for Lecture**

An examination of the historical and cultural background of diverse life ways and worldviews belonging to the peoples indigenous to the North American continent over time, including a study of modern day American Indian beliefs and practices. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL205 / Religion and the Modern World**3 Credits / 3.0 Periods for Lecture**

Introduction to the nature and role of religious beliefs and practices in shaping the lives of individuals and societies, with particular attention to the modern world. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL206 / Religion in America**3 Credits / 3.0 Periods for Lecture**

Introduction of the rich tapestry of religious traditions and movements that have helped to shape the United States of America. Investigate how religion has impacted American culture and institutions, and how the United States has in turn transformed long-standing religious traditions. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL207 / Ritual, Symbol, and Myth**3 Credits / 3.0 Periods for Lecture**

Introduction to the academic study of religion through the study of myths, symbols, and rituals. Includes methods and theories used by scholars to study the complex subject of religion. Attention to literate and nonliterate cultures. Prerequisites: Grade of C or better in ENG101, or ENG107, or permission of Department or Division.

Fulfills: Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL210 / Introduction to Judaism**3 Credits / 3.0 Periods for Lecture**

Introduction to the history, scriptures, practices and impact of Judaism. Prerequisites: Grade of C or better in ENG101, or ENG107, or permission of Department or Division.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL211 / Introduction to the Old Testament (Hebrew Bible)**3 Credits / 3.0 Periods for Lecture**

The historical context, development, canonization, historical transmission, translation and interpretation of the Hebrew Bible. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

REL212 / Introduction to Islam**3 Credits / 3.0 Periods for Lecture**

Introduction to History, scriptures, practices and impact of Islam. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL213 / Introduction to the Qur'an**3 Credits / 3.0 Periods for Lecture**

Historical context, development, canonization, historical transmission, translation and Interpretation of the Quran. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

REL214 / Introduction to Mormonism (The Church of Jesus Christ of Latter-day Saints)**3 Credits / 3.0 Periods for Lecture**

History, scriptures, doctrines, and organization of the Church of Jesus Christ of Latter-day Saints as a modern American religious movement. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

REL218 / Religion and Culture**3 Credits / 3.0 Periods for Lecture**

Examination of the relationship between religion and culture, with a particular emphasis on how culture influences religion and how religion influences culture historically and in modern settings. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

REL223 / Spiritual But Not Religious**3 Credits / 3.0 Periods for Lecture**

Explore the historical, social, and cultural context for the emergence of spiritual but not religious segment, and examine who identifies with this movement and why. Identify what variety of attitudes and beliefs this group holds, and explore the varieties of private and public spiritual practices and civic engagement this group participates in. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

REL225 / African-American Religions**3 Credits / 3.0 Periods for Lecture**

Leaders, movements, traditions, and controversies in the religious history of African-Americans. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

REL230 / Religions of Indigenous Peoples**3 Credits / 3.0 Periods for Lecture**

Sacred story as experienced in ritual and daily practice of various contemporary groups, such as African, Native American, Native Australian, Native South American, Icelandic and Japanese. Power of sacred story to create and re-create religious and social perspectives. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL240 / Religion and Science**3 Credits / 3.0 Periods for Lecture**

Consideration of the relationship of religion and science from the beginnings of the historical period to the present. Includes consideration of various contemporary religious perspectives on current scientific issues. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL244 / Philosophy of Religion**3 Credits / 3.0 Periods for Lecture**

Religious language, the existence of God, miracles, criticisms and human destiny. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL245 / Eco Religion**3 Credits / 3.0 Periods for Lecture**

Consideration of the perspectives of various religious traditions toward the origins, destiny and value of the earth and its non-human life. Includes exploration of contemporary issues in the interaction of humans with the environment. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL248 / Religion, Peace and Violence**3 Credits / 3.0 Periods for Lecture**

Exploration of the understandings and attitudes toward peace, war and violence in religious traditions from the pre-historical to the present. Includes consideration of a variety of religious scripture traditions, theological and philosophical reflections, and religious symbolism. Prerequisites: A grade of C or better in ENG101 or ENG107, or permission of Instructor.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL250 / Religion in Ireland: Neolithic to Early Medieval**3 Credits / 3.0 Periods for Lecture**

Survey of the Ancient religious traditions of Ireland. Students investigate the beliefs and practices of Irish Religions in the context of their social, economical and political systems from the late Neolithic to the early Medieval periods (4000 BCE-700 CE). Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL251 / History of Religion in Ireland: Medieval to Modern**3 Credits / 3.0 Periods for Lecture**

Development of Christianity in Ireland from 400 AD to present, focusing on political, economic, social, and cultural factors. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL271 / Introduction to the New Testament**3 Credits / 3.0 Periods for Lecture**

Focuses on the origins, development, and selection of the New Testament (NT) books in the Christian religion. Includes authorship, historical reliability, translation and transmission over the centuries, and investigative techniques used by modern scholars. Also considers the varieties of literature contained in the NT, its portrayal of the status of women, and the influence of first-century religious and cultural worldviews on its development. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL277 / Mysticism East and West**3 Credits / 3.0 Periods for Lecture**

Mystical traditions of Eastern and Western religions, including Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as shamanism of oral traditions. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL282AA / Service Learning Experience in Religious Studies**1 Credit / 1.0 Periods for Laboratory**

Service learning field experience within private/public agencies, and citizen volunteer groups. Prerequisites: A grade of C or better in REL100 or permission of Instructor. Course Notes: REL282AA may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL282AB / Service Learning Experience in Religious Studies**2 Credits / 2.0 Periods for Laboratory**

Service learning field experience within private/public agencies, and citizen volunteer groups. Prerequisites: A grade of C or better in REL100 or permission of Instructor. Course Notes: REL282AB may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL282AC / Service Learning Experience in Religious Studies**3 Credits / 3.0 Periods for Laboratory**

Service learning field experience within private/public agencies, and citizen volunteer groups. Prerequisites: A grade of C or better in REL100 or permission of Instructor. Course Notes: REL282AC may be repeated for a total of six (6) REL282 credit hours; may not repeat specific agency assignment for more than three (3) credit hours. Offered as credit (P) or no credit (Z) basis. Standard grading available according to procedures outlined in catalog.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL290 / Women and World Religions**3 Credits / 3.0 Periods for Lecture**

Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific cultural contexts around the world. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL291 / Religion and Sexuality**3 Credits / 3.0 Periods for Lecture**

Exploration of the perspectives of various religious traditions on human sexuality. Includes consideration of all aspects of sexual practice as well as its incorporation into religious discourse and practice and its impact on social norms and structures. Prerequisites: None. Course Notes: Course may contain adult content. All students under 18 years old are required to have a signed parental consent form on file, which is on the back of the Under the age of 18 Enrollment Form.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL292 / Goddess Religions**3 Credits / 3.0 Periods for Lecture**

Introduction to Goddess religions from pre-historic to modern times. Focuses on ancient origins, myths and practices of religions with female deities, their historical replacement by male religious deities, and their modern re-emergence in neo-Goddess movements. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL294 / Religion in Community Service**3 Credits / 3.0 Periods for Lecture**

Consideration of the history and nature of the involvement of religious tradition in transformative social action. Incorporates student involvement in some dimension of community service with subsequent integrative classroom activities. Prerequisites: None. Course Notes: REL294 students must complete twelve (12) hours of community service in a site approved by the instructor and provide documentation.

Division: Language, Humanits, Learnng Centr&Informtn Studies

REL295 / Capstone: The Story of Belief**3 Credits / 3.0 Periods for Lecture**

Analysis of both the process and results of human belief, in various stages of the human experience. Incorporates materials from multiple disciplines to form an overarching narrative that integrates the variations of human belief. Prerequisites: A grade of "C" or better in any four (4) REL courses.

Division: Language, Humanits, Learnng Centr&Informtn Studies

Small Business Management (SBS)

SBS200 / Small Business Operations**2 Credits / 2.0 Periods for Lecture**

In-depth analysis of and individual plan development for the "day-to-day" problems encountered in the operation of a small business. Includes the development of an individual business operations plan including finance, purchasing, production scheduling, maintenance, shipping/receiving, personnel management and insurance/risk management requirements. Investigation of daily problems related to inventory control and business expansion. Prerequisites: None.

Division: Business and Computing Studies

SBS204 / Small Business Marketing And Advertising**2 Credits / 2.0 Periods for Lecture**

Introduction to marketing and advertising strategies and methods including business image, target market analysis, and customer buying behavior profile. Analysis and selection of advertising/business promotion methods and timing. Methods of deciding product and market segment focus included. Design of an individual marketing and advertising/promotion plan. Prerequisites: None.

Division: Business and Computing Studies

SBS213 / Hiring and Managing Employees**1 Credit / 1.0 Periods for Lecture**

Methods and techniques for managing employees in a small business. Includes supervisor's role, leadership styles, interpersonal communications, staff planning, employee work styles, techniques for handling problem employees, and employee motivation. Focuses on real life situations to enable the business owner to gain high performance from their employee team. Includes segment on hiring, new employee orientation, training, benefits, and developing future staffing needs assessment. Prerequisites: None.

Division: Business and Computing Studies

SBS214 / Small Business Customer Relations**1 Credit / 1.0 Periods for Lecture**

Developing and improving customer relations for the small business. Planning and delivering quality customer service. Includes topics on attitude of employees, customer perceptions and motivations, handling customer dissatisfaction, and developing customer, supplier, vendor, and distributor loyalty. Prerequisites: None.

Division: Business and Computing Studies

SBS220 / Internet Marketing For Small Business**2 Credits / 2.0 Periods for Lecture**

Focuses on "e-Commerce"-doing business on the Internet and planning a web site. Topics include: how the Internet can help growth and success of business; examples of successful marketing on the Internet; availability of Internet services; necessary hardware and software for marketing on the Internet; determining products/services appropriate for Internet marketing; budget constraints and ongoing operations of the Internet site. Prerequisites: None.

Division: Business and Computing Studies

SBS230 / Financial and Tax Management for Small Business**2 Credits / 2.0 Periods for Lecture**

An overview of accounting and recordkeeping for the successful management of a small business. Develops an understanding of the accounting cycle and preparation of financial statements. Includes section on tax consequences and the choice of legal entity choice based on taxation. Prerequisites: None.

Division: Business and Computing Studies

Society and Business (SBU)

SBU200 / Society and Business**3 Credits / 3.0 Periods for Lecture**

The study and scientific inquiry of issues and demands placed on business enterprise by owners, customers, government, employees and society. Included are social, ethical and public issues and analysis of the social impact of business responses. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Business and Computing Studies

Sociology (SOC)

SOC101 / Introduction to Sociology

3 Credits / 3.0 Periods for Lecture

The systematic study of social behavior and human groups, particularly the influence of culture, socialization, social structure, stratification, social institutions, differentiation by region, race, ethnicity, sex/gender, age, class, and socio/cultural change upon people's attitudes and behaviors. Prerequisites: None.



SUN# SOC 1101

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC110 / Drugs and Society

3 Credits / 3.0 Periods for Lecture

Provides a sociological understanding of drug use and policy. Examines social-cultural factors contributing to use and abuse and effects of commonly used drugs on the individual and society. Reviews current theories and research relating to drug use. Introduces extensive coverage of various methods and statistics for measuring drug use. Explores prevention, intervention, and treatment. Examines public policies concerning drug related issues. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC130 / Human Sexuality

3 Credits / 3.0 Periods for Lecture

Sociological study of human sexuality. Course examines the social forces that shape a culture's sexual practices, attitudes, and inequalities. Topics include the social construction of sexuality, social change, sexual identities, sexual inequalities, institutional influence and regulation of sexuality, as well as current trends and issues surrounding human sexuality. Prerequisites: None. Course Notes: SOC130 contains mature adult content and some of the topics discussed may be considered "controversial" or "taboo" in some societies and cultures. Students are expected to be able to engage with the content in a respectful and open-minded way.

Division: Social & Behavioral Sciences

SOC141 / Sovereign Indian Nations

3 Credits / 3.0 Periods for Lecture

Explores the sovereign status of American Indians as it relates to social relationships, traditions, and culture of American Indians. Reviews historic relations with non-Indian societies, the development of federal Indian law, tribal governments and their functions. Examines treaty rights, environmental issues, public policy, economic development, other current issues, and contemporary social problems. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC143 / Sociology of African American Problems

3 Credits / 3.0 Periods for Lecture

Social, economic, political and domestic problems encountered by African Americans in typical urban environments. Emphasis on the specific dynamics of adjustment, survival and empowerment of urban African Americans. Prerequisites: None.

Division: Social & Behavioral Sciences

SOC157 / Sociology of Families and Relationships

3 Credits / 3.0 Periods for Lecture

Systemic analysis of socio-cultural and historical origins of modern families in the U.S. and their importance, major challenges and changing trends. Explores being single, dating and attraction, love, cohabitation and marriage, family planning and parenthood, conflict and crisis within the family, and divorce. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC180 / Social Implications of Technology

3 Credits / 3.0 Periods for Lecture

Effects of development and implementation of technology on society. Historical and multi-cultural comparisons of this process, current concerns addressed, and prospects for the future analyzed. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC212 / Gender and Society**3 Credits / 3.0 Periods for Lecture**

A sociological analysis of the way culture shapes and defines the positions and roles of both men and women in society. Major emphasis on social conditions which may lead to a broadening of gender roles and a reduction of gender role stereotypes and the implications of these changes. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC220 / Sport and Society**3 Credits / 3.0 Periods for Lecture**

Applies the sociological perspective to the study of sport. Emphasizes how hierarchies of race, class, and gender in the United States impact the sport experience of fans, athletes, and athletic administrators, as well as how professional, collegiate, and amateur sports have at times played a transformative role in society. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC241 / Race and Ethnic Relations**3 Credits / 3.0 Periods for Lecture**

Examines how the social construction of race shapes social interaction and social institutions. Explores the consequences of power, privilege and oppression among major ethnic and racial groups in the United States. Prerequisites: None.



SUN# SOC 2215

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC245 / Social Deviance**3 Credits / 3.0 Periods for Lecture**

A sociological analysis of social deviance including a review of theories, individual and social implications of deviant labeling, and relevant aspects of social control. Prerequisites: None.

Division: Social & Behavioral Sciences

SOC251 / Social Problems**3 Credits / 3.0 Periods for Lecture**

A systematic and in-depth survey of selected social problems and inequalities from a sociological perspective, including what is known about the problem, recent trends, their causes and consequences, individual and societal responses to them, and possible remedies or policies that could address these issues. Issues to be examined may include issues in health care, dependencies, crime/violence, inequalities in race/class/gender/region/age, family, education, work, the economy, population migration/immigration, the environment, war and global insecurity. Prerequisites: None.



SUN# SOC 2250

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC253 / Social Class and Stratification**3 Credits / 3.0 Periods for Lecture**

Focus on the class structure of American Society. Effects of social class position on individual life chances. The occurrence, causes and consequences of poverty in the United States. Prerequisites: None.

Division: Social & Behavioral Sciences

SOC265 / Sociology of Aging**3 Credits / 3.0 Periods for Lecture**

Examination of the aging process from post adolescence through old age from interdisciplinary and multicultural perspectives. Emphasis on positive participation in major social institutions and the amelioration of age-related problems. Prerequisites: None.

Division: Social & Behavioral Sciences



SOC266 / Sociology Through Film**3 Credits / 3.0 Periods for Lecture**

Examines movie-going and the experience of spectatorship. Studies how motion pictures reflect, influence, and are influenced by American culture and societal institutions. Explores the role of the movie industry as a vehicle for social commentary, analysis, and criticism. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

SOC270 / The Sociology of Health and Illness**3 Credits / 3.0 Periods for Lecture**

Roles of health care providers and patients, various modalities of treatment and prevention, and the history, current status, and future trends in medicine and medical technology, and complementary health approaches from a cross-cultural and global sociological perspective. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Social & Behavioral Sciences

Spanish (SPA)

SPA101 / Elementary Spanish I**4 Credits / 4.0 Periods for Lecture**

Basic grammar, pronunciation and vocabulary of the Spanish language. Includes the study of the Spanish-speaking cultures. Practice of listening, speaking, reading, and writing skills. Prerequisites: None. Course Notes: General Education Designation: Global Awareness [G] in combination with: SPA102

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA102 / Elementary Spanish II**4 Credits / 4.0 Periods for Lecture**

Continued study of grammar and vocabulary of the Spanish language and study of the Spanish-speaking cultures. Emphasis on speaking, reading, and writing skills. Prerequisites: (A grade of "C" or better in SPA101 or SPA101AA), or permission of Department or Division. Completion of prerequisites within the last three years is required. Course Notes: General Education Designation: Global Awareness [G] in combination with: SPA101

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA109 / Law Enforcement Spanish I**3 Credits / 3.0 Periods for Lecture**

Conversational and written Spanish for law enforcement personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in common job-related situations. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA111 / Fundamentals of Spanish**4 Credits / 4.0 Periods for Lecture**

Accelerated study of elementary Spanish for students with previous Spanish coursework. Includes basic Spanish grammar, pronunciation, vocabulary and the study of the Spanish-speaking cultures. Emphasis on speaking, listening, reading, and writing skills. Prerequisites: A grade of C or better in SPA101, or SPA101AA, or SPA115, or SPA115AA, or two years of high school Spanish, or permission of Department or Division. Completion of prerequisites within the last three years is required.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA115 / Beginning Spanish Conversation I**3 Credits / 3.0 Periods for Lecture**

Basic pronunciation, vocabulary, sentence structures, and cultural awareness, necessary to develop speaking and listening skills in Spanish. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA117 / Health Care Spanish I**3 Credits / 3.0 Periods for Lecture**

Basic conversational Spanish for health care workers or students. Emphasis on basic sentence structure, pronunciation and vocabulary used in health care settings. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA119 / Spanish for Educational Settings I**3 Credits / 3.0 Periods for Lecture**

Basic conversational Spanish for teachers, counselors, administrators and other school personnel. Emphasis on basic sentence structure, pronunciation and vocabulary used in educational settings. Prerequisites: None.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA201 / Intermediate Spanish I**4 Credits / 4.0 Periods for Lecture**

Continued study of essential Spanish grammar and Spanish-speaking cultures. Continued practice and development of reading, writing, and speaking skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: A grade of "C" or better in SPA102, or SPA102AA, or SPA111, or permission of Department or Division. Completion of prerequisites within the last three years is required.



SUN# SPA 2201

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies



SPA202 / Intermediate Spanish II**4 Credits / 4.0 Periods for Lecture**

Review of grammar, continued development of Spanish language skills with continued study of the Spanish-speaking cultures. Prerequisites: A grade of "C" or better in SPA201, or permission of Department or Division. Completion of prerequisites within the last three years is required.



SUN# SPA 2202

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA203 / Spanish for Spanish-Speaking Students I**4 Credits / 4.0 Periods for Lecture**

Designed for Spanish-speaking students. Emphasis on written composition, grammar review, punctuation and spelling, literature and conversation. May be taken in lieu of SPA201. Prerequisites: Permission of Instructor or Department Chair.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo, Cultural Diversity in the US [C] in combo; Cultural Diversity in the United States [C]

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA225 / Intermediate Spanish Conversation I**3 Credits / 3.0 Periods for Lecture**

Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in Spanish. Emphasis on fluency and accuracy in spoken Spanish. Prerequisites: A grade of C or better in SPA102, or SPA102AA, or SPA116, or SPA116AA, or permission of Department or Division. Completion of prerequisites within the last three years is required.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA226 / Intermediate Spanish Conversation II**3 Credits / 3.0 Periods for Lecture**

Continued study of vocabulary, sentence structures, and cultural awareness necessary to improve speaking and listening skills in increasingly complex Spanish. Emphasis on fluency and moderate accuracy in spoken Spanish. Prerequisites: A grade of C or better in SPA201, or SPA225, or permission of Department or Division. Completion of prerequisites within the last three years is required.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA235 / Advanced Spanish Conversation I**3 Credits / 3.0 Periods for Lecture**

Continued development of skills in conversational fluency. Class conducted completely in Spanish. Prerequisites: A grade of C or better in SPA226 or permission of Department or Division. Completion of prerequisites within the last three years is required.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA236 / Advanced Spanish Conversation II**3 Credits / 3.0 Periods for Lecture**

Further development of skills in conversational fluency. Grammar presented only to clarify student errors. Prerequisites: A grade of C or better in SPA235 or permission of Department or Division. Completion of prerequisites within the last three years is required.

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA241 / Spanish and Spanish-American Film I**3 Credits / 3.0 Periods for Lecture**

Analysis of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. All films, coursework, class participation, and oral and written reports conducted in Spanish. Prerequisites: A grade of C or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA242 / Spanish and Spanish-American Film II**3 Credits / 3.0 Periods for Lecture**

Analysis and critique of movies presented in the Spanish language and produced by cinematographers from Bolivia, Paraguay, Venezuela, Ecuador, Puerto Rico, Costa Rica and the Mexican independent film producers. Includes documentary, biography, and works of literature and their film versions as art form and social commentary. Prerequisites: A grade of C or better in SPA241, or permission of Department or Division. Completion of prerequisites within the last three years is required. Course Notes: All coursework, class participation, oral and written reports are in Spanish.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA265 / Advanced Spanish I**3 Credits / 3.0 Periods for Lecture**

Introduction and study of Spanish and Spanish-American literature. Selected readings from most Spanish-speaking countries. All discussions, oral reports, and written assignments are in Spanish. Prerequisites: A grade of C or better in SPA202 or permission of Department or Division. Completion of prerequisites within the last three years is required.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPA266 / Advanced Spanish II**3 Credits / 3.0 Periods for Lecture**

Further study of Spanish and Spanish-American literature. Reading selections from most Spanish-speaking countries. All oral reports, discussions, and written reports in Spanish. Graduated level of difficulty from the literature studied in SPA265. Prerequisites: A grade of C or better in SPA265, or permission of Department or Division. Completion of prerequisites within the last three years is required.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

Spanish Humanities (SPH)

SPH241 / Spanish and Latin American Film in Translation**3 Credits / 3.0 Periods for Lecture**

A survey of Spanish and Spanish-American film as art form and as social commentary. Includes documentary, biography, and films based on works of literature. Coursework, class participation, and oral and written reports conducted in English. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

SPH245 / Hispanic Heritage in the Southwest**3 Credits / 3.0 Periods for Lecture**

A survey of Hispanic heritage in the Southwest. Cultural and social institutions and their contribution to the development of the region and its heritage. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

Storytelling (STO)

STO292 / The Art of Storytelling**3 Credits / 3.0 Periods for Lecture**

Explore the art and origin of storytelling. Provide a variety of storytelling techniques, styles and exercises to enhance the delivery of telling stories. Assist in the integration and application of storytelling to the learning environment in the classroom. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Communication & Fine Arts

STO293 / The Art of Storytelling II**3 Credits / 3.0 Periods for Lecture**

Further exploration of the art of storytelling. Provide opportunities for the expansion of storytelling skills and a deeper appreciation of storytelling and its applications. Prerequisites: A grade of C or better in EDU/HUM/STO292.

Division: Communication & Fine Arts

STO294 / Multicultural Folktales**3 Credits / 3.0 Periods for Lecture**

Study of multicultural folktales, exploring the impact of the oral tradition in American society and showing classroom applications. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

Sustainability/Natural Sciences (SUS)

SUS100 / Introduction to Sustainability**3 Credits / 3.0 Periods for Lecture**

Introduction to the basic concepts of sustainability. Includes challenges of land, ocean, and resource management as well as the built environment. Also covers connections between global, local and personal sustainability challenges and responses at each level. Prerequisites: None.

Fulfills: Global Awareness [G]; Global Awareness [G]-in combo

Division: Biological Sciences

SUS110 / Sustainable World**3 Credits / 3.0 Periods for Lecture**

Introduction to the field of sustainability and exploration of the interaction between human and natural global systems. Framework for analyzing and investigating the global challenges such as land use change, competition for water and other natural resources, and renewable energy concerns and crises. Prerequisites: None.

Fulfills: Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Biological Sciences

Sustainability/Social Sciences and Humanities (SSH)

SSH111 / Sustainable Cities**3 Credits / 3.0 Periods for Lecture**

Introduction to the field of sustainability and exploration of the practices leading to the development of sustainable cities. Explores the concept of sustainable development of cities within local, regional, and global contexts. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Biological Sciences

Theatre (THE)

THE111 / Introduction to Theatre

3 Credits / 3.0 Periods for Lecture

A survey of theatre, including basic elements and principles of production, styles, and/or historical perspectives of theatre, dramatic literature, and criticism. Prerequisites: None.



SUN# THE 1100

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

THE118 / Playwriting

3 Credits / 3.0 Periods for Lecture & Lab

Practice and study of theories and techniques of writing for the stage; creating characters, dialogue, and plot for monodramas, scenes, and plays. Prerequisites: None.

Division: Communication & Fine Arts



THE220 / Modern Drama

3 Credits / 3.0 Periods for Lecture

Analysis of dramatic literature studied within political, historical, and cultural contexts and examined from the perspective of the playwright's structure and style. Prerequisites: A grade of C or better in ENG101, or ENG107, or equivalent.



SUN# THE 2220

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Communication & Fine Arts

THE260 / Film Analysis

3 Credits / 3.0 Periods for Lecture

Understanding and enjoyment of film and its correlation to literature, art, music, and other disciplines. Prerequisites: None.

Division: Communication & Fine Arts

Theatre and Film (THF)

THF115 / Makeup for Stage and Screen

3 Credits / 4.0 Periods for Lecture & Lab

Purposes, materials, and techniques of makeup for stage and screen.

Prerequisites: None.

Division: Communication & Fine Arts

THF205 / Introduction to Cinema

3 Credits / 3.0 Periods for Lecture

Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts



THF206 / Introduction to Television Arts**3 Credits / 3.0 Periods for Lecture**

History and development of electronic media and its impact on popular arts. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

THF209 / Acting for the Camera**3 Credits / 4.0 Periods for Lecture & Lab**

Special technical aspects of acting before a camera. Prerequisites: A grade of C or better in THP112 or permission of Instructor.

Division: Communication & Fine Arts

THF210 / Contemporary Cinema**3 Credits / 3.0 Periods for Lecture**

A study of contemporary films, directors and critics with emphasis on evaluating film as an art form. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

THF219 / Advanced Acting for the Camera**3 Credits / 4.0 Periods for Lecture & Lab**

Focuses on special technical aspects of advanced acting before a camera. Prerequisites: A grade of C or better in THF209 or permission of Instructor.

Division: Communication & Fine Arts

Theatre Performance/Production (THP)

THP112 / Acting I**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamental techniques and terminology of acting through physical and vocal expression, improvisation, and monologue and scene work. Emphasis on characterization. Prerequisites: None.

Division: Communication & Fine Arts

THP131 / Stage Movement**3 Credits / 4.0 Periods for Lecture & Lab**

Movement skills for the actor to develop a flexible, expressive physical instrument. Includes pantomime, physical isolation, and awareness exercises. Prerequisites: None.

Division: Communication & Fine Arts

THP201AA / Theatre Production I**1 Credit / 2.0 Periods for Laboratory**

Designed to give college credit to the cast and technical production crews of college theatre productions. Prerequisites: None. Course Notes: THP201AA may be repeated for a total of four (4) credit hours.

Division: Communication & Fine Arts

THP201AB / Theatre Production II**2 Credits / 4.0 Periods for Laboratory**

Designed to give college credit to the cast and technical production crews of college theatre productions. Prerequisites: None. Course Notes: THP201AB may be repeated for a total of four (4) credit hours.

Division: Communication & Fine Arts

THP212 / Acting II**3 Credits / 4.0 Periods for Lecture & Lab**

Fundamental techniques of acting through script analysis, rehearsal, and performance. Prerequisites: A grade of C or better in THP112 or permission of Department or Division.

Division: Communication & Fine Arts

THP213 / Introduction to Technical Theatre**4 Credits / 2.0 Periods for Laboratory, 4.0 Periods for Lecture**

Procedures of technical theatre production and demonstration. Topics include design and construction of scenery, lighting, and properties.

Prerequisites: None.

Division: Communication & Fine Arts

THP214 / Directing Techniques**3 Credits / 4.0 Periods for Lecture & Lab**

Contemporary theory and practice in directing, the evolution of present-day directing procedures, and a sampling of scripts for directing practice. Principles of script analysis, blocking, casting, rehearsing, and performing. Prerequisites: A grade of C or better in THP112 or THE220, or permission of Instructor.

Division: Communication & Fine Arts

THP217 / Introduction to Design Scenography**3 Credits / 4.0 Periods for Lecture & Lab**

The role of the theatre designer in creating scenic, lighting, costume, sound, and multimedia effects for stage productions. Elements of the design process and communication of dramatic themes and visions to the audience. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Communication & Fine Arts

THP241 / Oral Interpretation of Literature**3 Credits / 3.0 Periods for Lecture**

The study, analysis, and preparation for performance of prose, poetry, and dramatic literature. Preparation of material for public audiences. Prerequisites: A grade of C or better in ENG101 or ENG107.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Literacy & Critical Inquiry [L]; Literacy & Critical Inquiry [L]-in combo

Division: Communication & Fine Arts

THP250 / Stage Properties**3 Credits / 4.0 Periods for Lecture & Lab**

Introduction to stage properties including design, construction and maintenance features. Provides skills in property design and construction using an assortment of standard materials. Prerequisites: None.

Division: Communication & Fine Arts

THP270 / Musical Theatre Workshop**2 Credits / 5.0 Periods for Lecture & Lab**

Workshop in the study and performance of Musical Theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. Prerequisites: None. Course Notes: MUP/THP270 may be repeated for credit.

Division: Communication & Fine Arts

THP270AA / Musical Theatre Workshop**1 Credit / 3.0 Periods for Laboratory**

Workshop in the study and performance of musical theatre repertoire. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. Prerequisites: None. Course Notes: MUP/THP270AA may be repeated for a total of two (2) credits.

Division: Communication & Fine Arts

THP273 / Musical Theatre Production**1 Credit / 5.0 Periods for Laboratory**

Principles and techniques for musical theatre production performance. Includes audition techniques, stage directions, character role development, rehearsal techniques, vocal acting styles and vocal technique, stage movement, crew roles, and performance. Prerequisites: By audition.

Division: Communication & Fine Arts

Unmanned Aircraft Systems (UAS)

UAS100 / sUAS Batteries and Electronics**5 Credits / 5.0 Periods for Lecture**

Small Unmanned Aircraft Systems (sUAS) basic electronics and circuits, communications, information display systems, transmitter and receiver fundamentals, flight controller installation and tuning, lithium polymer battery basics, radio telemetry, basic electrical troubleshooting and repair techniques. Prerequisites: Appropriate placement test score in Reading, Writing and Math, or [eligibility in ENG101, (RDG100 or RDG100LL), MAT120, MAT121, and MAT122].

Division: Aviation and Applied Technology

UAS101 / Introduction to Unmanned Aircraft Systems Operation**3 Credits / 3.0 Periods for Lecture**

Introduction to Unmanned Aircraft Systems (UAS) history, flight, avionics, sensors, communication systems, and an introduction to data analysis and applications, such as first responders, Geographic Information Systems, and Precision Agriculture. Prerequisites: None.

Division: Aviation and Applied Technology

UAS107 / Unmanned Aircraft Systems Operator Certification**3 Credits / 3.0 Periods for Lecture**

Develop knowledge and skills needed to manage and operate small Unmanned Aircraft Systems (sUAS). Includes Federal Aviation Regulations, radio communications, weather, airspace and airport authorization criteria, loading and performance, aeronautical decision making, sUAS flight operations, and maintenance. Operational skills acquired through both classroom and hands-on flight activities. Prerequisites: None. Course Notes: Students must complete the appropriate flight lessons to satisfactorily complete the course.

Division: Aviation and Applied Technology

UAS205 / sUAS Instruments and Autopilot Programming and Uses**3 Credits / 3.0 Periods for Lecture**

Small unmanned aircraft systems (sUAS) proper operation of ground control stations with remote aircraft, troubleshooting radio link issues, changing parameters, setting up waypoints, flying on autopilot only. Prerequisites: A grade of C or better in UAS101 and UAS107.

Corequisites: UAS206.

Division: Aviation and Applied Technology

UAS206 / sUAS Instrument and Autopilot Flight Lab**2 Credits / 2.0 Periods for Laboratory**

Students will use their advanced skills to manipulate a ground control station in the practical operation of Small Unmanned Aircraft Systems (sUAS) in a controlled, but realistic environment. Prerequisites: A grade of C or better in UAS101 and UAS107. Corequisites: UAS205.

Division: Aviation and Applied Technology

UAS207 / sUAS Dynamics and Design**5 Credits / 5.0 Periods for Lecture**

Design, configuration, and concepts of Small Unmanned Aircraft Systems (sUAS). Platform types including multi-rotors, single rotor, and fixed wing aircraft. Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS208.

Division: Aviation and Applied Technology

UAS208 / sUAS Dynamics and Design Lab**2 Credits / 2.0 Periods for Laboratory**

Students will assemble, program, preflight, and fly a Small Unmanned Aircraft System (sUAS) manufacturing equipment. Prerequisites: A grade of C or better in UAS205 and UAS206. Corequisites: UAS207.

Division: Aviation and Applied Technology

UAS211 / sUAS Ground Control Stations, Telemetry, and**Communications****3 Credits / 4.0 Periods for Lecture & Lab**

Small Unmanned Aircraft Systems (sUAS) proper set-up, operation, and basic troubleshooting of many different Ground Control Stations used in the industry. Set-up, use, and configuration of different radio telemetry units. Proper use and procedures of communications with Air Traffic Control. Proper use of applications for use in Air Traffic Management. Prerequisites: A grade of C or better in UAS207 and UAS208.

Division: Aviation and Applied Technology

UAS212 / sUAS Maintenance Lab**2 Credits / 2.0 Periods for Laboratory**

Proper inspection, troubleshooting, and repair techniques for Small Unmanned Aircraft Systems (sUAS). Prerequisites: A grade of C or better in UAS207 and UAS208.

Division: Aviation and Applied Technology

UAS215 / sUAS Commercial Flight Training**3 Credits / 6.0 Periods for Lecture & Lab**

Proper pre-flight and operation techniques used in a Small Unmanned Aircraft (sUAS) Commercial Environment. Gathering digital information from an inspection or surveillance flight, then demonstrate post-production skills and techniques for a useable customer product. Prerequisites: A grade of C or better in UAS207 and UAS208.

Division: Aviation and Applied Technology

Women's Studies (WST)

WST100 / Introduction to Women's and Gender Studies**3 Credits / 3.0 Periods for Lecture**

Introduction to critical issues in women's studies. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learnng Centr&Informtn Studies

WST120 / Gender, Class, and Race**3 Credits / 3.0 Periods for Lecture**

A feminist discussion of gender, class and race as basic and central social categories that determine how we see ourselves and others and how they circumscribe our opportunities and privileges in American society. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]

Division: Language, Humanits, Learng Centr&Informtn Studies

WST128 / Law and Violence Against Women**3 Credits / 3.0 Periods for Lecture**

Covers cases and materials on systems of oppression particularly as related to women in our society. Areas covered include battering, sexual harassment, sexual assault, prostitution, and pornography as exemplified in present-day society. Designed to give students the ability to identify problems of violence against women and participate in current societal discourse on various ways to resolve them. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

WST160 / Women and the Early American Experience**3 Credits / 3.0 Periods for Lecture**

Introduction to American women's history, from the colonial period to suffrage in 1920, based on a feminist perspective. Prerequisites: None.

Fulfills: Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

WST161 / American Women Since 1920**3 Credits / 3.0 Periods for Lecture**

Continuation of the history of women in America from 1920 to the present, based on a feminist perspective. Includes discussion of the roles and status of immigrant and ethnic minority women. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo; Social-Behavioral Sciences [SB]; Social-Behavioral Sciences [SB]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

WST200 / Essential Feminist Writing**3 Credits / 3.0 Periods for Lecture**

Literary tracing of feminism from 18th century to present. Explores major issues related to women in the 20th century. Prerequisites: A grade of C or better in ENG101 or permission of Instructor.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Historical Awareness [H]; Historical Awareness [H]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

WST209 / Women and Films**3 Credits / 3.0 Periods for Lecture**

Analysis of images of women in films from both historical and contemporary perspectives. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

WST284 / 19th Century Women Writers**3 Credits / 3.0 Periods for Lecture**

Investigates major themes in literature by women writing in the 19th century including the nature of women's lives in the family, in work situations, and in society. Poetry, prose, essays and drama are examined with an emphasis on common themes. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

WST285 / Contemporary Women Writers**3 Credits / 3.0 Periods for Lecture**

Explores twentieth century literature (short stories, essays, plays, and poetry) written by women and about women. Focus on themes relevant to women's lives regardless of age, creed, or ethnic background. Prerequisites: None.

Fulfills: Cultural Diversity in the US [C]-in combo; Cultural Diversity in the United States [C]; Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

WST286 / Women and Health: Body/Mind/Spirit/Connection**3 Credits / 3.0 Periods for Lecture**

Economic, sociopolitical, and demographic factors affecting women's health. Methods for optimizing physical, emotional, and spiritual health. Specific health concerns of women throughout the lifespan. Activism for health promotion. Prerequisites: None.

Division: Language, Humanits, Learng Centr&Informtn Studies

WST290 / Women and World Religions**3 Credits / 3.0 Periods for Lecture**

Focus on the role of women in several organized religions and/or religious sects. Study of myth and symbols as they are used to establish, maintain, and enforce sex roles within specific cultural contexts around the world. Prerequisites: None.

Fulfills: Humanities, Arts and Design [HU]; Humanities, Arts and Design [HU]-in combo; Global Awareness [G]; Global Awareness [G]-in combo

Division: Language, Humanits, Learng Centr&Informtn Studies

Writing Across Curriculum (WAC)

WAC101 / Writing Across the Curriculum**3 Credits / 3.0 Periods for Lecture**

Expressive, expository, and academic writing experiences to develop students' rhetoric and composition foundation. Experience planning and drafting multi-paragraph essays through a writing process with emphasis on essay and paragraph structure and the elements of sentence structure. Participation in writing workshop, group work, reading to support writing tasks, and writing from sources. A minimum of three multi-paragraph essays and a final reflection paper. Prerequisites: None.

Division: Composition, Creative Writing, and Literature

ADMINISTRATION & FACULTY INDEX

Maricopa County Community College District Governing Board

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President District 3

Tom Nerini, Ed. D.
Secretary District 5

Susan Bitter Smith
Member District 2

Jean McGrath
Member District 4

Jacqueline Smith, J.D.
Member District 1

Linda Thor, Ed. D.
Member At-Large

Kathleen Winn
Member At-Large

Julissa Munoz
Student Member

District Administration

480-731-8000

Dr. Steven Gonzales
Interim Chancellor

Dr. Eric Leshinskie
Interim Provost

Dr. James Moore
Interim Chief Operating Officer

Georgetta Kelly
Chief Human Resources Officer

Darcy Renfro
Chief Workforce & Economic Development Officer

Brian Spicker
President and Chief Executive Officer
Maricopa Community Colleges Foundation

Melissa Flores
Interim General Counsel

Matt Hasson
Chief Information Officer

Chandler-Gilbert Community College

2626 E. Pecos Road
Chandler, Arizona 85225
480-732-7000

Administration

Greg Peterson, President

- B.A., Brigham Young University
- M.Ed., Portland State University
- Ed.D., University of Texas at Austin

William Guerriero

Vice President, Academic Affairs

- B.A., Aquinas College
- M.S., Central Michigan University
- Ed.D., Northern Arizona University

Veronica Hipolito

Vice President, Student Affairs

- B.S., M.A., Northern Arizona University

Jenna Kahl

Associate Vice President, Community Relations

- B.A., Arizona State University
- M.Ed., Arizona State University

Bradley Kendrex

Interim Executive Vice President, Administrative Services

- B.S., M.P.A., Arizona State University

Bernadette La Mazza

Associate Vice President, Business Operations

- B.A., George Mason University
- M.A., University of Phoenix
- MAOM, PHR, SHRM-CP
- Ed.D., Grand Canyon University

Pearson, Thomas

Interim Associate Dean, Workforce

- A.A.S., Community College of the Air Force
- B.S., Hawaii Pacific University
- M.S., University of Phoenix

Felicia Ramirez-Perez

Dean, Enrollment Services/Student Affairs

- B.S., Western New Mexico University
- M.Ed., Ed.D., Northern Arizona University

Gabriela Rosu

Dean, Instruction

- B.S., Robert Morris University
- M.S., Duquesne University

Christopher J. Schnick

Dean, Arts and Sciences

- B.S., M.A., University of Maryland College Park

Anne Suzuki

Dean, Student Development

- B.A., B.S., University of Arizona
- M.S., University of San Francisco
- Ed.D., Arizona State University

Faculty**Adams, Ryan**

Program Co-Director, Counseling (Services)

- B.S., University of Illinois at Urbana-Champaign
- M.Ed., Ph.D., Arizona State University

Adamson, Scott

Mathematics

- A.A., Itasca Community College
- B.S., M.Ed., Northern Arizona University
- Ph.D., Arizona State University

Anderson, Jill

Division Chair, Nursing

- A.S., A.A., Portland Community College
- B.S.N., Oregon Health Sciences University
- M.S.N., M.B.A., University of Phoenix
- Ph.D., University of Arizona

Backhaus, Donna

Mortuary Science

- A.A.S., Mesa Community College
- B.S., University of Phoenix
- M.A., University of Phoenix

Bader, Sherrick

Emergency Medical Technology

- G.S., Mesa Community College
- Certified Emergency Paramedic, Mesa Community College

Bates, Bradford J.

Chemistry

- B.S., M.Ed., Arizona State University

Beaumont, Jonah

Mathematics

- M.S., Northern Arizona University

Beyer, Alisa

Psychology

- B.A., University of Arizona
- M.A., Ph.D., University of Kansas

Bilka, Monika

History

- B.S., University of Oregon
- M.S., University of Montana
- Ph.D., Arizona State University

Bishop, Shannon

Mathematics

- B.A., M.A., Arizona State University

Bourke, Katrina

Massage Therapy

- A.A.S., Royal Melbourne Institute of Technology
- A.A.S., Mesa Community College
- B.S., M.Ed., Northern Arizona University
- M.S., California University of Pennsylvania

Bowles, Joachim

Chemistry

- B.S., Oregon State
- M.S., University of Oregon

Braaten, Anthony

Communication

- B.S., M.Ed., Northern Arizona University

Bryant, Michael

Communication

- M.S. E.D Northern Arizona University

Burgoyne, Mary Beth

Languages, Humanities, Learning Center, and Information Studies

- B.A., Arizona State University
- M.L.S., University of Arizona

Burris, Joni

Education

- B.S., M.Ed., Ph.D., University of North Dakota

Cala, Jacqueline

Biology

- B.S., University of Arizona
- M.S., Arizona State University

Ceschiat, Michael

Art (Ceramics)

- B.F.A., Columbus College of Art and Design
- M.F.A., University of New Mexico

Chardon, Diane

English and Humanities

- B.A., Louisiana State University
- M.A., Ph.D., Arizona State University

Cherner, Elliot

Computer Information Systems

- B.S., M.B.A., University of Phoenix
- Ed.D., North Central University

Church, Micaela

Division Chair, Communication & Fine Arts

- B.A., B.M., Alma College
- M.F.A., Arizona State University

Chuppa-Cornell, Kim

Languages, Humanities, Learning Center, and Information Studies

- B.A., M.A., Arizona State University
- M.L.S., University of Arizona
- Ed.D., Northern Arizona University

Collins, Diana

Clinical Nursing

- B.N., M.S., The Sage Colleges

Correa, Fabio

Spanish

- M.A., Ph.D., Arizona State University

Cox, Frank (Trey)

Mathematics

- B.A., M.S., Concordia University Wisconsin
- Ph.D., Arizona State University

Dean, John

English

- B.A., Arizona State University
- M.F.A., Texas State University

Discala, Camille

Biology

- B.A., Herbert H. Lehman College of the City University of New York
- M.D., Albert Einstein College of Medicine

Edwards, Virginia

English as a Second Language

- A.A., Chandler-Gilbert Community College
- B.A., M.C., Arizona State University

Evangelista, Arlene

Mathematics

- B.S., M.N.S., Arizona State University

Falletta, Eva

Director, Learning Center

- B.Acc., New Mexico State University
- M.C., Arizona State University
- M.Ed., Northern Arizona University

Farmer, Lisa**Business**

- B.A., University of New Mexico
- M.B.A., Regis University

Fernandez, Miguel

English

- B.A., M.A., New York University

Fields, Gregg

English

- B.A., M.A., California State University - San Marcos

Finley, David

English

- B.A., Appalachian State University
- M.A., Arizona State University

Finn, Patrick

English

- A.A., Riverside Community College
- B.A., University of California, Riverside
- M.F.A., University of Arizona

Fisher, Matthew A.

Accounting/Business

- B.S., Brigham Young University
- M.Acc., University of Arizona; CPA

Flanigan, Karen

Clinical Nursing

- B.S.N., M.S.N., Arizona State University; RN

Flaherty, Sean

Physics

- B.S., California Lutheran University
- M.N.S., Arizona State University

Flores, Alfinio

Mathematics

- Ph.D., University of Ohio

Fouremman, Polly

Biology

- A.B., Brown University
- M.S., Ph.D., University of Wisconsin-Madison
- D.V.M., Cornell University

Geraghty, Diana

Nursing

- B.S., University of Virginia
- M.A., Grand Canyon University

Gonzalez, Barbara

Division Chair, Business & Computing Studies

- B.B.A., University of New Mexico
- M.B.A., Regis University
- CPA

Grafel, Deidre

Computer Information Systems & Information Technology

- B.A., University of Florida
- M.A., Jacksonville University
- MCSE, MCT, MCSD

Greer, Kimberly

Biology

- B.S., University of Tennessee
- M.S., Brigham Young University

Groseta, Alexandra

Mathematics

- M.A., Arizona State University

Horn, Heather

English

- B.A., Rice University
- M.A., Ph.D., University of Wisconsin-Madison

Howard, Justin

Biology

- B.S., D.C., Logan College

Howe, Barbara

Languages, Humanities, Learning Center, and Information Studies

- B.A., Arizona State University
- J.D., Santa Clara University
- M.L.S., University of Arizona

Hunter, Kathleen

Business, Personal Computers

- B.A., Arizona State University
- M.A., Northern Arizona University
- MCSE, MCP+I, A+

Hutto, Clarence (Mike)

Aviation

- A.A., Mesa Community College
- B.A., St. Leo College

Jacquín, Gregg

Administration of Justice

- B.A., M.A., University of Arizona.

Jeanson, Andrew

Mathematics

- B.S., Elmhurst College
- M.A., University of Arizona

Johnson, Monica

Languages, Humanities, Learning Center, and Information Studies

- B.A., California Lutheran University
- M.A., University of Arizona

Johnston, Joey

Music

- B.A., M.A., Northern Arizona University.

Joyner, Kacie

Mathematics

- B.B.A., Texas Christian University
- M.N.S., Arizona State University

Judson-Garcia, Julia G.

Mathematics

- M.A., Arizona State University

Julian, William

Aircraft Maintenance Technology

- Kansas College of Technology
- A.A.S., Eastern New Mexico University

Khalil, Bashir M.

Division Chair, Aviation & Applied Technology

- A.A., A.S., Cochise College
- B.S., M.S., Indiana State University

Kilbridge, Christine

Languages, Humanities, Learning Center, and Information Studies

- B.A., Alma College
- M.A., Kansas State University
- M.L.I.S., Wayne State University

Konatske, Jamie

Biology Faculty

- B.S., M.Ed., Arizona State University

Krishnaswamy, Sujatha

Chemistry

- B.S., University of Madras
- M.S., Indian Institute of Technology
- M.S., Ph.D., Vanderbilt University

Llamas-Flores, Silvia

Mathematics

- B.S., M.A., University of California
- Los Angeles; Ph.D., Arizona State University

Lopez, Ann

Accounting/Business

- B.A., B.S., University of Arizona

Lynn, Nicki

Business

- B.S., Townson University
- M.B.A., University of Baltimore

Marsee, Mickey

English

- B.A., Chapman University
- M.A., Ph.D., University of New Mexico

Martinez, Kelsy

Languages, Humanities, Learning Center, and Information Studies

- B.A., Arizona State University
- M.L.S., Simmons University

Matar, Bassam

Engineering

- B.S., Oklahoma State University
- M.S., Northern Arizona University

Matar, Wendy C.

English

- B.S., M.A., Arizona State University

McDonald, Kristy

Psychology

- B.S., M.A., Ph.D., Arizona State University

McFavilen, Michael

Chemistry

- B.S., M.S., University of California at San Diego
- M.S., Arizona State University

McGee, Kimberly

Division Chair, Health Sciences

- B.S., M.S., Ph.D., Arizona State University

McManaway, Carla J.

Mathematics

- A.A.S., Lake Land Community College
- B.A., Arizona State University
- M.Ed., Northern Arizona University

Mendoza, Louis

Studio Art

- B.F.A, M.F.A., Arizona State University

Millstone, Katie

Nursing

- B.S.N, M.S.N., University of Phoenix; RNC

Morgan, Charles P.

Aviation

- A.A.S., Chandler-Gilbert Community College
- B.A.S., Arizona State University

Moser, Teri

English

- B.A., M.A., Utah State University
- Ph.D., Arizona State University

Mowad, Nicholas

Philosophy

- B.A., University of Texas at Austin
- M.A., Ph.D., Loyola University Chicago

Najafi, Roja

Art History

- B.Tech, Tehran University of Art
- M.A., Brooklyn College
- Ph.D., University of Texas at Austin

Nieset, Nikki

Counseling

- B.A., The Ohio State University
- M.Ed., Ph.D., Arizona State University.

Nuneviller, Beth

Business

- B.S., Arkansas State University
- M.B.A., University of Arkansas

Ohrnberger, Maryellen

Reading

- B.A., CUNY Queens College
- M.Ed., Arizona State University

Orozco, Myrna (Estela)

Biology

- B.S., M.S., University of Texas at El Paso
- B.S., D.V.M., Texas A&M University

Pardo, Roberta

Mathematics

- B.S., M.Ed., Northern Arizona University

Parsi, Yasaman

Counselor

- Master of Counseling & M.Ed., Arizona State University

Patterson, Kimberley

Division Chair, Biology

- B.S., Arizona State University
- D.V.M., Oklahoma State University

Pauls, Jennifer

Physics and Mathematics

- B.A., B.S., Bethel College
- Ph.D., University of Kansas

Peterson, Jennifer

Education

- B.S., Minnesota State University Moorhead
- M.Ed., Northern Arizona University

Petrequin, Paul

Division Chair, Languages, Humanities, Learning Center, and Information Studies

- B.A., University of Oregon
- M.A., Ph.D., University of California, Santa Cruz

Podmanik, Milos

Math

- B.A., Arizona State University
- M.S., Northern Arizona University

Rahman, Mizan

Computer Information Systems

- B.S., Bangladesh University
- M.S., North Dakota State University
- M.B.A., Arizona State University

Ramakrishna, Pushpa

Biology

- B.S., M.S., Bangalore University
- M.N.S., Ed.D., Arizona State University

Ramirez, Jason

Mathematics

- B.A., B.S., M.Ed., Northern Arizona University.

Ramos, Belinda T.

Psychology

- B.A., M.A., Ph.D., Northwestern University

Rauhalammi, Samuli

Biology

- M.S. Anatomy & M.S. Medical Visualisation and Anatomy, University of Glasgow

Rayappa, Prema

Computer Science & Computer Information Systems

- OCA Oracle Developer Certified Associate
- B.S., Bangalore University (India)
- M.S., Arizona State University

Reeder, Karen

Psychology

- B.A., M.Ed., Ph.D., Arizona State University

Reider, Christopher

Education

- B.A., Arizona State University
- M.A.Ed., Ottawa University

Reynolds-Garza, Anne

Mathematics

- B.A., Eastern Illinois University
- M.A., M.Ed., Framingham State University

Richardson, Arlisa

Division Chair, Physics & Engineering

- B.S., M.A., Grambling State University
- M.S., University of Texas at Dallas
- M.S., Ph.D., Arizona State University

Roberts, Adam

Music

- B.M., Northern Arizona University
- M.M., New England Conservatory of Music

Rude, Renee

English

- B.S., M.E., Ph.D., Northern Arizona University

Ruschak, Lisa

Administration of Justice

- B.A., Ottawa University
- M.Ed., Northern Arizona University

Sandoval, Vanessa

Commu

- B.A., University of Arizona
- M.Ed., M.A., Northern Arizona University

Santoro, Michael

Geology

- B.S., M.A., Ph.D., Arizona State University

Schnoebelen, Carly

Chemistry

- B.S., University of Arizona
- Ph.D., Purdue University

Short, Lana

Business and Personal Computers & Computer Information Systems (BPC/CIS)

- AAS, Phoenix College
- M.Ed, St. Petersburg State Pedagogical University
- Ed.D., Northern Arizona University

Silberman, Scott W.

Psychology

- B.A., University of Arizona
- M.A., University of Georgia
- Ph.D., Arizona State University

Silvestri, Fanny

Engineering

- B.A., Ecole Supérieure des Techniques Aéronautiques et de Construction Automobile
- M.A., University of Montreal

Sindel-Arrington, Tricia

Reading

- B.S., University of Arizona
- M.Ed., Northern Arizona University
- Ph.D., Arizona State University

Snyder, Eric

Aviation & Applied Technology

- B.S., Southern Illinois University

Staggar, William

Nursing

- B.S.N., American University of Beirut
- M.S.N., University of Texas
- Ph.D., New Mexico State University

Steele, Arezoo (Sue)

Mathematics

- B.S., University of Melbourne, Australia
- M.S., Arizona State University

Strom, April

Mathematics

- B.A., M.A., Texas Tech University
- Ph.D., Arizona State University

Sullivan, Ryan (Buzzy)

Photography

- B.F.A., Oregon College
- M.F.A., Arizona State University

Summerford, Roark David

Aviation

- B.S. Arizona State University

Swan, Gregory C.

Business

- A.A.S., Mesa Community College
- B.S., M.Acc., Arizona State University
- Ed.D., Northern Arizona University
- CPA, MCP, CDP

Thompson, Donna

English

- B.A., Yale University
- M.A., Duke University

Tinkle-Williams, Keziah

English

- A.A., Spokane Community College
- B.A., M.A., Eastern Washington University

Toms, Malik

English

- B.A., M.A., Iowa State University

Tovar-Blank, Zoila

Psychology

- B.A., Stanford University
- M.Ed., Ph.D., Arizona State University

Trone, Gregory

Health Education

- B.A., University of North Carolina at Wilmington
- M.S., Appalachian State University
- Ph.D., Arizona State University

Valenzuela-Emanuel, Krista

English as a Second Language

- B.A.E., Arizona State University
- M.A., Northern Arizona University

Varela, Rachel Leigh

Aviation

- B.S., Arizona State University

Villalobos, Karen

Economics

- B.A., Universidad Autonoma De Ciudad Juarez, Mexico
- M.S., University of Texas

Villarreal, Andrea

Nutrition

- B.S., M.S., Oregon State University

Voss, Jennifer M.

Clinical Nursing

- M.S., Grand Canyon University

Wellner, Karen

Biology

- B.S., State University of New York at Oneonta
- M.S., Ph. D., Arizona State University
- M.A., Ph.D., University of Iowa

Wilkowski, Colleen

English

- M.A., Arizona State University

Williams, Jade

Communication

- Ph.D., Arizona State University

Williams, Patrick

English

- B.A., M.A., Eastern Washington University
- Ed.D., Northern Arizona University

Wolfe, Audra

Program Co-Director, Counseling (Academics)

- A.A., Mesa Community College
- B.S., M.C., Arizona State University

Woodbury, Pamela

Division Chair, Mathematics

- B.S., University of Miami
- M.S., Lehigh University

Woodrum, Brian

Physical Sciences & Engineering

- B.S., Elmhurst College
- Ph.D., Arizona State University

Yalim, Paulus

Languages

- B.S., Gallaudet University
- M.A., University of Phoenix

Zamila, Mariam

Communication

- B.A., M.A., Texas State University

Zehr, Linda

Division Chair, Social & Behavioral Sciences

- B.A., M.A., St. Mary's University

Zilch, John

Aviation

- B.S., Midwestern State University
- M.S., Embry Riddle Aeronautical University

Zimmerer, Mary

Division Chair, Composition, Creative Writing and Literature

- B.G.S., Northern Arizona University
- M.Ed., Arizona State University
- Ed.D., Sam Houston State University

Faculty Emeritus**Bedal, Charles D. (1969-1998)**

Mathematics

- A.A., Phoenix College
- B.S., M.S., Northern Arizona University

Bartholomew, Lois (1980-2008)

Vice President, Student Affairs

- A.A., Phoenix College
- B.S., Arizona State University
- M.A., Northern Arizona University

Bingham, Cynthia (1991-2019)

Spanish

- B.A., Brigham Young University
- Certificate, Latin American Studies
- M.A., Arizona State University

Canham, Jeanne (1995-2019)

Mathematics

- B.S., Taylor University
- M.Ed., Arizona State University

Conkright, Alice (1981-2003)

English and Humanities

- B.A., M.A., Syracuse University
- M.L.S., Ph.D., Northern Illinois University

Davenport, Pamela G. (1987-2012)

English

- B.A., M.A., Arizona State University

Denton, Marc (1991-2018)

Music

- B.A., Arizona State University
- M.M., Brigham Young University

Dichtenberg, Carol L. (1998-2020)

Library

- B.A., State University College at Buffalo
- M.L.S., University at Buffalo

Fagan, Sharon (1995-2017)

Education

- B.A., M.A., Arizona State University
- M.Ed., Northern Arizona University

Foster, Tom (1980-2018)

Business & Computer Information Systems

- A.A., Mesa Community College
- Certificate, Institutional Research
- B.A.Ed., M.Ed., Ed.D., Arizona State University

Hesse, Maria L. (1984-2009)

President

- B.S., M.B.A., Arizona State University
- M.Ed., Ed.D., Northern Arizona University

Jarvis, Ana C. (1987-2014)

Spanish

- B.A., California State College
- M.A., Ph.D., University of California, Riverside

Johnson, Patti N. (1981-2009)

Journalism and Mass Communication

- A.A., Yavapai College
- B.A., M.A., Indiana State University

Larson-Birney, Brenda J. (1987-2013)

Education, Business, and Computer Information Systems

- B.S., Bowling Green State University
- M.A., Arizona State University
- M.S., Nova University
- Ed.D., Northern Arizona University

Miller, Larry A. (1987-2012)

Library

- B.A., Eastern Illinois University
- M.S., University of Illinois at Urbana-Champaign
- Ed.D., Loyola University of Chicago

Munro, Regina (Regi) (1997 – 2020)

Biological Sciences

- B.A., University of Wisconsin-Eau Claire
- M.S., Ph.D., Arizona State University; ACSM-HFI, CSCS

Rudibaugh, Melinda (1981-2017)

Mathematics

- B.S., Indiana University of Pennsylvania
- M.N.S., Arizona State University

Schroeder, John R. (1990-2013)

Provost, Williams Campus

- A.T.A., A.A.S., Everett Community College
- B.A.Ed., Central Washington University
- M.A., Azusa Pacific University

Short, Nancy(1994-2016)

Social and Behavioral Sciences; Economics

- B.S., M.A., Arizona State University

Stuebner, Sandra (1986-2016)

Psychology

- B.A., Chapman College
- M.C., Arizona State University

Terrell-Bamiro, Caryl (1989-2018)

English

- B.S., M.A., Arizona State University

Travers, Diane (1985-2016)

Communication

- A.G.S, Mesa Community College
- B.S., Northern Arizona University
- M.A., West Virginia University

Ward, Arnette S. (1971-2002)

President

- A.A., Edward Waters Junior College
- B.S., Florida Agricultural and Mechanical University
- M.A., Arizona State University

Weaver, David (1982-2014)

Physics

- B.S., M.S., East Texas State University
- CNA, CCNA

Wolter, William (Ted) (1988-2018)

Art

- B.A., Western Illinois University;
- M.F.A., University of Illinois at Urbana-Champaign

Wright, Randall (2000-2018)

Communication and Fine Arts; Instrumental Music

- B.M.E., M.M., Northern Arizona University

Zabezensky, Ferne L. (1974-1997)

Biology

- B.S., M.S., Ph.D., Arizona State University

GLOSSARY OF COLLEGE TERMINOLOGY

Academic Load

The total number of credit hours taken in a term. Twelve credit hours is considered a full-time load.

Academic Advisor

A designated staff member who has received training to provide students with academic information that will direct them to the appropriate classes to achieve their educational goals and enhance their academic success.

Admission

Acceptance into a college after the student has filed a completed Student Information Form with the Admissions, Records and Registration Office and has been admitted according to admissions criteria. Students who have been admitted are eligible to register for courses.

AGEC

The Arizona General Education Curriculum (AGEC) is a general education certificate that fulfills lower-division general education requirements for students planning to transfer to any Arizona public community college or university. Generally, the MCCCD AGEC transfers as a block without loss of credit. The AGEC-A and AGEC-B require a minimum of 35 credit hours, and the AGEC-S requires a minimum of 36 credit hours.

Alumnus/Alumna

A graduate of a college or university. (Plural: alumni/alumnae)

Associate Degree

Degree awarded by community colleges after a student completes a specified number of course requirements and credit hours, generally a minimum of 60 semester credits. May be an Associate in Arts (AA), Associate in Business (ABus), or Associate in Science (AS) designed primarily for transfer to complete a baccalaureate degree; an Associate in Applied Science (AAS), designed primarily to enhance workplace skills and knowledge; or an Associate in General Studies (AGS), designed to fulfill students' goals of higher education.

Audit

An option for class registration in which the student pays to attend class but does not want to receive credit. Students sometimes choose to audit courses in which they do not wish to complete required assignments.

Bachelor's Degree

A degree awarded by a four-year college or university. Generally requires completion of 120 semester credits. Also referred to as a baccalaureate degree (e.g., BA or BS).

Class Number

A unique, five-digit code used to identify each class section of each course offered. Class Numbers are listed in the Class Schedule.

Class Period

Time spent in class and/or lab each week. One period is equivalent to 50 minutes per week.

Class Schedule

An online college publication that lists all courses offered during a semester, including dates and times of class meetings, names of

instructors, buildings and rooms, credit hours, and other important registration information.

Co-curricular Activities

Also known as extracurricular. Activities, clubs, or organizations students may participate in above and beyond their academic courses.

Commencement

Also known as graduation. A ceremony during which colleges award certificates of completion and degrees to graduating students.

Continued Probation

A student on academic probation is placed on continued probation if they do not raise their cumulative grade point average (GPA) to the required minimum standard. Enrollment is limited to six (6) credit hours for a period of one semester.

Continuous Enrollment

The process of registering for and completing courses during consecutive semesters, excluding summer sessions. Determines catalog year for graduation.

Corequisite

Specified conditions, requirements, or courses that must be completed during the same semester as another course.

Counselor

A person professionally trained in counseling who helps students with educational, career, or personal concerns as well as goal setting and decision making.

Course

A specific subject studied within a limited period of time, such as a semester, and taught by a faculty member. Also called course offering or class.

Course Fee

A charge for services, supplies, and/or materials for a course, in addition to tuition and fees.

Course Number

A three-digit code that identifies a specific course and indicates its level and sequence (e.g., 101 in ENG101 First-Year Composition).

Course Prefix

A three-letter code that identifies the subject area of a course (e.g., ENG in ENG101 First-Year Composition indicating a course in English).

Course Title

The name of a specific course that indicates subject and content (e.g., First-Year Composition, title for English 101).

Credit Hour

The numerical unit of college credits earned for the satisfactory completion of a specific course. Also referred to as semester hours or units (e.g., 3 credit hours).

Curriculum

A planned sequence of courses for an academic or occupational goal. Also referred to as a program of study.

Division

A group of faculty who teach classes in related subjects, such as accounting, management, and marketing in the Business and Computing Studies Division.

Drop/Add Period

A specified period of time at the beginning of a term when schedule changes (i.e., adding or dropping one or more classes) are allowed without a refund penalty. Courses dropped during the Drop/Add Period do not appear on students' transcripts.

Electives

Non-required courses that students may select to complete their program of study.

Faculty

Instructors, teachers. Counselors and librarians are also faculty.

Final Exams

Tests or exercises given at the end of a term that are often comprehensive; that is, they may include all material covered during the semester. The schedule of final exam dates and times for each term can be found by searching for final exam schedule at [cgcc.edu](https://www.cgcc.edu) (https://www.google.com/url/?q=http://cgcc.edu&sa=D&source=editors&ust=1662785143372893&usg=AOvVaw2c_CmPEBd1nzh-hxEjvH2T).

Financial Aid

Financial assistance in the form of grants, scholarships, work study, and loans to assist students in paying for college. Sources are varied with funds coming from federal and state governments, colleges, private donors, and local agencies and organizations.

Student Financial Services

Also known as the Cashier's Office where students may pay tuition and fees, course fees, and other fees owed the college.

Grade Point

The numerical value of a grade multiplied by the credit hours for a course (A=4 points; B=3 points; C=2 points; D=1 point). If, for example, a student earns an A in English 101 (3 credit hours), then the student earns 12 points: A=4 points x 3 (credit hours) = 12 points.

Grade Point Average

Generally called GPA, grade point average is determined by dividing the total number of grade points earned by the total number of credit hours attempted. For example, 45 grade points divided by 15 credit hours earned = 3.0 GPA.

Learning Communities

Learning communities are two or more classes connected through content, ideas, and activities. Using a variety of learning methods, learning communities can be comprised of linked activities between courses, linked and clustered courses, and completely integrated single- or team-taught courses.

Lower Division

Normally freshman- and sophomore-level (100 and 200) courses offered by a college. Community colleges offer ONLY lower division courses. Four-year institutions also offer upper division courses, which are junior-level and senior-level (300 and 400) courses.

Major

An area of concentrated study often for a specific degree or occupation, such as journalism, nursing, or aircraft maintenance.

New Student Orientation

A session during which new students are introduced to academic programs, facilities, and student support services provided by a college.

Official Absence

Absence from class approved by the Vice President of Student Affairs for students who are participants in an official college activity. Approved absence documentation must be presented by students to their instructors before the official absence. Students make arrangements to complete the work they will miss.

Pass/Fail

An option for class registration in which students choose to receive a grade of Pass or Fail in lieu of a letter grade (A, B, C, D, F). Students can earn credits towards graduation by passing these courses but the grades will not count in their GPAs. It is best to check with an advisor to make sure that Pass/Fail grades will transfer to another college or university.

Prerequisite

Specified conditions, requirements, or classes that must be completed before enrolling in a class. For example, ENG102 First-Year Composition has a prerequisite of ENG101 First-Year Composition.

Probation

A warning that a student is not in good academic standing. May be accompanied by restricted credit hour enrollment.

Recess

Holidays and the periods of time between academic semesters when classes are not in session.

Registration

Actual enrollment of a student into specific courses after the student has been admitted to the college.

Required Course

A course that a student must complete to meet certain goals or to complete a certain curriculum.

Scholastic Suspension

Students on suspension from any accredited institution of higher education may appeal to the Admissions and Standards Committee or campus designee for permission to register. The student will be limited to twelve (12) credit hour unless approved by Admissions and Standards Committee.

Semester

Traditionally half an academic year, about 16 weeks in length. Fall semester begins in August and spring semester begins in January.

Service-Learning

Service-Learning combines community service with academic instruction focusing on critical-thinking and problem-solving, values clarification, social and personal development, and civic responsibility. CGCC students have been performing meaningful service at community agencies to learn experientially during one-day events, class projects, and individual placements for over 10 years.

Syllabus

One or more pages of course requirements that instructors give to students on the first day of class. The syllabus may include detailed information about a course, such as an instructor's grading system, attendance policies, and testing and assignment dates.

Transcript

An official record of a student's college coursework that is maintained by the college registrar. Courses taken, grades, GPA, and graduation information are included on a transcript.

Transfer Credit

Course credit that is accepted from or by another college or university.

Tuition and Fees

The cost per semester credit unit that students must pay for their college courses. Tuition and fees are determined by the Maricopa County Community College Governing Board.

Tutoring

Additional learning assistance provided by tutors to students in individual or group sessions. Tutoring is centralized in the Learning Center.

Withdrawal

Officially dropping any or all courses during a semester.

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