



Central
Arizona
College

COLLEGE CATALOG

2015-2016



*Quality Learning Experiences
Lead to Lifelong Success*



Welcome to Central Arizona College!

CAC is a vital and integral part of Pinal County. For nearly 45 years, the college has been serving and educating the diverse communities of our area. With five full service campuses and three centers located strategically throughout the region, CAC provides abundant educational, economic, cultural, and personal growth opportunities for those of all ages.

As a learner-centered institution, CAC focuses on what is best for the student. CAC's mission is to create lifelong learners. Our talented and innovative faculty and staff have made student learning and success their top priority.

The college offers a full array of academic degrees and certificates, online and university transfer courses, career training and personal enrichment courses. Classes may be taken in person, online, through ITV or as a hybrid utilizing multiple delivery methods. Weekend College, workforce development, continuing education and lifelong learning opportunities are woven into the fabric of our institution.

Central Arizona College has a national reputation for excellence - excellence in quality, excellence in learning outcomes and excellence in athletics. The college has received national recognition from the Higher Learning Commission, the Bellwether Assembly, the League for Innovation in the Community College, and the National Junior College Athletic Association.

On behalf of the CAC faculty and staff, we are honored you have chosen Central Arizona College.

Sincerely,
Dr. Doris Helmich
President/CEO
Central Arizona College



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College Mission



2015 All-Arizona Academic Team members – Dr. Carol Johnson, David Rowlands, William Gray, Nathaniel Bush, Socorro Carrillo, and Dr. Jim Moore



OUR VISION

Central Arizona College is the leader of innovative learner success and the center for educational opportunities in our diverse communities.

OUR MISSION

Central Arizona College engages our diverse communities in quality learning experiences for lifelong success by providing accessible educational, economic, cultural, and personal growth opportunities.

OUR DIRECTIONS

- Students
- Quality Programs
- Academic Involvement K-12
- Facilities that Foster Learning
- Advanced Degrees
- Responsibility to Community
- Employee Development

ACCREDITATION

Central Arizona College is accredited by the Higher Learning Commission. For information about Central Arizona College's accreditation, you can contact the Higher Learning Commission at 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1411, 312-263-0456, info@hlcommission.org, or online at www.ncahlc.org. You may also contact Central Arizona College, 8470 North Overfield Road, Coolidge, AZ 85128 or call 520-494-5444. In addition, several CAC programs maintain external accreditations.

Education

Early Childhood Education – Preschool Degree

National Association for the Education of Young Children
Commission on Early Childhood Associate Degree
Accreditation (NAEYC)

1313 L. Street NW, Suite 500
Washington, DC 20005-4101
202-350-8862

www.naeyc.org

Health Careers

Dietetic Technician Degree

Accreditation Council for Education in Nutrition and Dietetics
(ACEND)

120 S. Riverside Plaza, Suite 2000
Chicago, IL 60606-6995
800-877-1600

<http://www.eatright.org/ACEND/>

Dietary Managers Training Program Certificate

Association of Nutrition and Foodservice Professionals
(ANFP)

406 Surrey Woods Drive
St. Charles, IL 60174
800-323-1908

www.ANFPonline.org

Health Information Technology Degree

The Commission on Accreditation for Health Informatics and
Information Management Education (CAHIIM)

233 N. Michigan Ave. 21st Floor
Chicago, IL 60601-5800

312-233-1100

www.cahiim.org

Medical Assistant Degree

Commission on Accreditation of Allied Health Education
Programs (CAAHEP) upon the recommendation of the Medical
Assisting Education Review Board (MAERB)

1361 Park Street
Clearwater, FL 33756

727/210-2350 727/210-2350

www.caahep.org

Nursing Certificate and Degree

Arizona State Board of Nursing
4747 North 7th Street, Suite 200
Phoenix, AZ 85014

602-889-5150

<https://www.azbn.gov>

Accreditation Commission for Education in Nursing, Inc.

3343 Peachtree Road NE, Suite 850

Atlanta, GA 30326

404-975-5000

www.acenursing.org

Radiography Degree

Joint Review Committee on Education in Radiologic
Technology (JRCERT)

20 N. Wacker Dr., Suite 2850
Chicago, IL 60606-3182

312-704-5300

www.jrcert.org

Technology

Diesel and Heavy Equipment Technology

Associated Equipment Distributors Foundation

615 W. 22nd Street
Oak Brook, IL 60523

630-574-0650

www.aednet.org



Heavy Equipment Operators

National Center for Construction Education and Research (NCCER)
13614 E. Progress Blvd.
Alachua, FL 32615
386-518-6500
<http://www.nccer.org>

Welding

National Center for Construction Education and Research (NCCER)
13614 E. Progress Blvd.
Alachua, FL 32615
386-518-6500
<http://www.nccer.org>

The programs and classes in this catalog have been approved for veteran's benefits.

This publication and its provisions do not constitute, and should not be regarded as, a contract between CAC and any party or parties. At the time of publication, reasonable effort was made to ensure the factual accuracy of the information. However, this publication is not a complete statement of all policies, procedures, rules, regulations, academic requirements, and tuition and fees applicable to CAC, its students, or its programs. In addition, changes or additions may be made to the policies, procedures, rules, regulations, and academic requirements set out in this publication. CAC reserves the right to make these changes and additions to the information in this publication without prior notice. When a curriculum or graduation requirement is changed, it is not made retroactive unless the change is to the student's advantage and can be accommodated within the span of years normally required for graduation. *See an academic advisor for additional CAC policies.*

DECLARATION OF CIVILITY FOR A LEARNING COLLEGE

We affirm that all members of a learning college ought to be held in mutual respect; that they aspire to achieve and belong as do all people regardless of their title, job classification, or degree; that all members of the CAC community--student and teacher, manager and employee--are engaged in a common endeavor: the creation of an environment dedicated to learning.

We further affirm that the vitality of a learning college depends on a community where dialogues are both honest and civil, where tough questions are raised and we can disagree without being disagreeable. Thus, it is the duty of every member of the community to actively and consciously help make this possible, committing each of us to personally uphold the virtues that lead to such a culture and to hold others accountable as well, both privately and publicly. We should all be role models and hold each other to a consistent standard.

To achieve these ends, a behavior, which we shall call civility, must not only be practiced but form the basis for a new era of respect and trust among the members of this community. For without this civility--this respect and trust--the goal of becoming a place where learning is cherished will never be achieved. Civility as we understand it flows from these basic virtues:

Integrity, including

- Honesty
- Fairness
- Sincerity

Fidelity, including

- Faithfulness to the spirit of a learning college
- Allegiance to the public trust

Charity, including

- Kindness
- Caring
- Good will
- Tolerance
- Compassion

Responsibility, including

- Reliability
- Accountability
- Trustworthiness

Self-discipline, including

- Acting with reasonable restraint
- Not indulging in excessive behavior

Finally, we affirm that these virtues must be modeled first and foremost by those members who wear the mantle of leadership. It must be modeled foremost by the leaders within the student body, faculty, staff, and administration because it is to them that the rest of the community looks for direction, for support, and for wisdom in our common endeavor to make this a place of learning.

Central Arizona College provides equal opportunity in employment and educational programs and activities. Discrimination is prohibited on the basis of race, color, religion, sex, age, disability, national origin, military status, genetic test information, sexual orientation, or gender identity or expression.



Student Services



CAC students commit to complete their degree during a special signing day at the San Tan Campus.



Admission Information

Central Arizona College provides equal opportunity in employment and educational programs and activities. Discrimination is prohibited on the basis of race, color, religion, sex, age, disability, national origin, military status or genetic test information.

Admission Requirements

Regular Admission

Regular admission to the college is granted to any person who meets one of the following criteria:

- Graduate of a regionally accredited high school as defined by the United States Office of Education or any other appropriate state educational agency
- Earned a high school certificate of equivalency (GED)
- 18 years of age or older and demonstrates evidence of potential success in the community college
- Transfer student in good academic standing from another college or university

Admission of Students Under the Age of 18

No person under age 18 shall be denied admission because of age, lack of a high school diploma or high school certificate of equivalency, grade in school, lack of permission of school officials or lack of concurrent enrollment in a public or private school if the student meets one of the following test scores:

- SAT (Scholastic Aptitude Test) composite (verbal and math) score of 930 or above;
- ACT (American College Test) composite score of 22 or above.

Students who are participants in a special program or class sponsored by the college, such as the First Step Program and Early College, or who are currently in dual enrollment course(s) in both their high school and Central Arizona College may be considered for Special Admissions. A student admitted under this criterion is not guaranteed admission to a specific degree program or to all courses offered at the college. The number of credits in which a student may enroll may be limited.

Students seeking admission to the college as their primary institution must provide evidence of:

- Completion of the Admission Student Information Form;
- Completion of Request for Special Admission Form;
- Submission of a letter stating the reason for the special admission request;
- Completion of college placement exam (COMPASS/ASSET);
- Consultation with a member of the college academic advising staff and/or;
- Consultation with an approved Special Admit designated official.

Admission of Students in Special Status

Persons not meeting any of the provisions stated above may be admitted on an individual basis with the approval of college officials, so long as such students meet the established requirements of the course(s) for which they enroll and the College officials determine that such admission is in the best interest of the student. An admission form must be completed and a letter stating the reason for the special admission request is required.

Admission of F-1 Nonimmigrant Students – International Students

International students seeking admission based on F-1 student visa status must achieve the following:

- Completion of Admission Form/Registration Student Information form;
- Graduation from a high school equivalent to the 12th grade level in the United States. It is recommended that students have graduated in the upper 50 percent of their secondary school (high school or equivalent) in order to ensure success in academic classes at this college. Official high school transcripts must be mailed directly to the Records Office;
- Completion of Test of English as a Foreign Language (TOEFL) with a score of at least 450 paper test or 133 on the computer test. The score must be submitted directly from the testing agency to the Records Office. Questions about the TOEFL should be directed to the Educational Testing Services at the following address: TOEFL Services, PO Box 6155, Princeton, NJ, 08541-6155;
- Evidence of financial support or deposit of tuition. The college has no provision for scholarships for international students; therefore, students must be prepared to meet the necessary financial obligations for the entire time they will be in the United States. It is estimated that each student will need at least \$10,000 per academic year in order to meet all expenses, exclusive of travel;
- Proof of health insurance that will cover medical expenses in the United States or purchase of health/accident insurance after arriving at CAC;
- Translation of documents into English, if required.

Admission of students supplementing secondary school or home school with college courses

- Completion of Admission/Registration Student Information Form;
- Submission of completed Approval for Enrollment of High School Student Form;
- Submission of a letter stating the reason for the special admission request;
- Completion of the college placement exam (COMPASS/ASSET), if required for the courses in which the student plans to enroll;
- Consultation with academic advising staff and/or consultation with an approved Special Admit designated official.



Students enrolling in a program sponsored by the college or in courses for dual credit

- Completion of Admission/Registration Student Information Form;
- Completion of the college placement exam (COMPASS/ASSET), if required for the courses in which the student plans to enroll.

Students returning to CAC following an absence of more than one year

- Completion of Admission/Registration Student Information Form.

Residency Guidelines

Students are classified for tuition purposes under one of the following resident classifications:

- Resident, in-state
- Non-resident (includes out-of-state, F-1 nonimmigrant students and students without legal immigration status)

Residency regulations are published in their entirety under Official Residency Guidelines.

Resident status will be assigned under the following conditions:

- Students who are U.S. citizens;
- Dependent students who have lived in Arizona for less than a year, but reside with their parents or legal guardians who have established domicile in Arizona for one year and claim the student as an exemption for state and federal tax purposes;
- Financially independent students who have resided in Arizona for at least 12 months prior to the start of the semester in which they are enrolling and have established Arizona as their permanent domicile;
- Students who have transferred to Arizona by their employer for employment purposes;
- Students or spouses who are members of the Armed Forces of the United States, stationed in Arizona pursuant to military orders;
- Students who are members of Native American tribes whose reservation lands lie in Arizona and extend into another state and who are residents of that reservation.

Non-resident status will be assigned under the following conditions:

- Students who are claimed as exemptions by parents or legal guardians for U.S. federal or state income tax purposes and the parent or guardians are not residents of Arizona;
- Persons who have lived in Arizona less than one calendar year;
- Students who have not established Arizona as their permanent domicile after moving to Arizona;

- Winter visitors who have not established Arizona as their permanent domicile, even if residing in Arizona for more than one year;
- Students who are not U.S. citizens.

Official Residency Guidelines

The following guidelines concerning the determination of residency for tuition purposes are a compilation of statutory law (and A.R.S. 15-1801). Due to the complexity in interpreting these laws, students having difficulty in determining their residency should contact the Records Office for further explanation.

Proposition 300, A.R.S. §15-1803(B) now holds that “a person who is not a citizen or legal resident of the United States or who is without lawful immigration status is not entitled to classification as an in-state student pursuant to section 15-1802 or entitled to classification as a county resident pursuant to section 15-1802.01.”

A.R.S. §15-1825 requires that a person who is not a “citizen of the United States, who is without lawful immigration status and who is enrolled as a student” at a public university or community college “is not entitled to tuition waivers, fee waivers, grants, scholarship assistance, financial aid, tuition assistance or any other type of financial assistance that is subsidized or paid in whole or in part with state monies.”

Please contact the Records and Financial Aid Offices for further details.

Implementation of Guidelines

- Each student shall have the question of legal residence determined **prior** to the time of registration and payment of fees. It is the responsibility of the student to register under the correct resident determination.
- Enforcement of residency requirements shall be the responsibility of the President of Central Arizona College. The President has designated the Records Office to make the initial domicile classification. In determining a student’s classification, the college may consider all evidence, written or oral, presented by the student and any other information received from any source that is relevant to determining classification. The college may request written sworn statements or sworn testimony of the student.
- A request for a review of the initial classification may be made to the Records Office. The request must be in writing, with a completed Domicile Affidavit signed by the student and accompanied by a sworn statement of all facts relative to the matter. The request must be filed within 10 days of receipt of notification of classification as a non-resident. Failure to properly file a request for review within the prescribed time limit constitutes a waiver of review for the current enrollment period. The decision of the Records Office shall be final.



Definitions

- “Armed Forces of the United States” means the: Army, Navy, National Guard, the Air Force, Marine Corps, Coast Guard, Commissioned Corps of the United States Public Health Services and National Oceanographic and Atmospheric Administration.
- “Continuous attendance” means student is enrolled at an Arizona educational institution; as such term is defined by the institution’s governing body, for a normal academic year. Such person need not attend summer sessions or other such intercessions beyond the normal academic year in order to maintain continuous attendance.
- “Domicile” means a person’s true, fixed and permanent home and place of habitation. It is the place where he/she intends to remain and to which he/she expects to return when he/she leaves without intending to establish a new domicile elsewhere.
- “Emancipated person” means a person who is neither under a legal duty of service to his parent nor entitled to the support of such parent under the laws of this state.
- “Parent” means a person’s father or mother; if one parent has custody, that parent (or if there is no surviving parent or the whereabouts of the parents are unknown) or a guardian of an unemancipated person. There may not be circumstances indicating that such guardianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person.

Proof of Residency

When a student’s residency is questioned, or when a student wishes to have his/her residency status reviewed, the following proof will be required:

- A complete domicile affidavit signed by the student must be filed with the Records and Registration Office;
- Submitting evidence of at least three of the following items will be used in determining a student’s domicile in Arizona:
 - a. Arizona income tax return
 - b. Arizona voter registration
 - c. Arizona automobile registration
 - d. Arizona driver’s license
 - e. Place of high school graduation
 - f. Source of financial support
 - g. Dependency as indicated on federal income tax return
 - h. Notarized statement from landlord or employer
 - i. Bank accounts
 - j. Other relevant information
 - k. Birth certificate
- Student who is honorably discharged from the armed forces and demonstrated evidence of intent to be a resident of Arizona.

Concurrent Enrollment: Non-resident Tuition

- It is unlawful for any non-resident student to register concurrently in two or more public institutions of higher education in this state, including any university or community college, for a combined student credit hour enrollment of more than six semester hours without payment of non-resident tuition at one of the institutions.
- Any non-resident student desiring to enroll concurrently in two or more public institutions of higher education in this state, including any university or community college, for a combined total of more than six semester hours shall pay the non-resident tuition at the institution of his choice in an amount equivalent to non-resident tuition for the combined total semester hours at all institutions in which he/she is currently enrolled.



Western Undergraduate Exchange Program

Students from 16 Western states are eligible to participate in the Western Undergraduate Exchange Program (W.U.E.). The program allows full-time students who are seeking degrees or certificates to pay 150 percent resident tuition, rather than out-of-state tuition. Central Arizona College participates in the program along with other colleges and universities in Arizona, Alaska, California, Colorado, Common Wealth of the Northern Marianas Islands, Hawai‘i, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming.

New Mexico Resident Tuition Waiver Program

Central Arizona College and Western New Mexico University in Silver City have established a tuition waiver agreement, which is subject to renewal. A New Mexico resident who attends Central Arizona College may qualify to be assessed in-state tuition. There are a limited number of waivers available and may only be used for four semesters. Contact the Records Office for an application form or additional information.

Out-of-County Residence Affidavit

An Arizona resident attending classes in Pinal County from Apache, Gila, Greenlee or Santa Cruz counties must submit a completed Out-of-County Residence Affidavit every semester.



Classification of Students

- **Freshman:** A student with less than 30 semester hours of college credit.
- **Sophomore:** A student who has completed 30 or more hours of college credit.
- **Part-Time Student:** A student enrolled for less than 12 semester hours.
- **Full-Time Student:** A student enrolled for 12 or more semester hours.

Transfer Students

Transfer students are required to supply official transcript(s) from any previous college(s) for the purpose of evaluation of transfer credit(s). The college reserves the right to determine what credit(s) will be granted for courses transferred to the college to satisfy certificate or degree requirements.

Students may use an unofficial transcript only once for registration purposes while waiting for an official transcript to be received.

Transfer of Credits

The Arizona Commission for Postsecondary Education in conjunction with the Arizona Board of Regents developed the Arizona Higher Education Course Equivalency Guide (CEG) (az.transfer.com) to assist students in transferring courses from one college to another within the state of Arizona.

The CEG equivalency does not mean that the community college course is identical to the university course or vice versa, but that the course is regarded as fulfilling the requirement of the designated university or college course. Prospective transfer students, as well as College advisors may refer to this guide to choose courses appropriate to their major.

Due to changes that occur in the curriculum at the universities each year, students are encouraged to consult with the appropriate transfer institution's academic department for major course requirements before deciding on current class schedules.

Transferring Credits from CAC

To transfer credits, students may request that an official transcript be sent from CAC Records Office. Students must submit a written request to the Records Office including complete name, student ID number, a complete address of where the transcript is to be sent, along with the appropriate official transcript fee for each copy. Transcripts will not be released if students have any outstanding financial or institutional obligations.

Students can also request official transcripts online at www.centralaz.edu. Online requests will be processed with priority.

Transferring Credits to CAC

Students may request transfer credits to be evaluated by completing the Transcript Evaluation Request form and submitting the form to the Records and Registration Office.

Transfer courses must have been acquired through a regionally accredited college or university. Military courses and experiences in the Guide to the Evaluation of Educational Experiences in the Armed Services may be transferred if the credits are applicable to the student's degree objective.

Appropriate credit will be transferred from other institutions upon receipt of an official transcript. An official transcript must be in a sealed unopened envelope. Courses in which a grade of less than "C" was earned will not be accepted. Official transcripts must be submitted to the Records Office for evaluation.

Shared Unique Numbering system (SUN)

SUN courses are primarily AGECE or Common Courses at CAC or the partnering public and tribal community colleges and universities, SUN courses transfer to CAC as a direct equivalent course unless CAC does not offer that course. In the case that CAC does not offer the SUN course, the SUN course will be accepted to fulfill comparable CAC requirements based on the course content and student learning outcomes. See the SUN List at: <https://aztransmac2.asu.edu/cgi-bin/WebObjects/ATASS.woa/4/wo/RjKK1DvVRg7cezRlezGqr0/0.0.11.1.1>.

Readmission of Academically Dismissed Students

Students who are academically dismissed and wish to be considered for readmission, must seek approval from the Chief Academic Officer. A request for readmission must be made in writing and must include reasons why readmission should be considered. If approved, the student will be required to meet with an academic advisor to formulate a detailed plan for completion of course work. Students who are admitted will have a restricted academic load. The Chief Academic Officer has the final decision and will notify appropriate areas of the decision and any academic restrictions. Readmission to the college does not necessarily mean readmission to a specific program.

Catalog Year of Admission

Admitted students should follow the College Catalog graduation requirements in effect at the time of their initial enrollment. Students who enter the college and are continuously enrolled without a break through subsequent fall and spring semesters (summers excluded) are subject to the graduation requirements of the catalog upon their initial entrance or a current year catalog.



Students who enter the college, then miss more than two semesters and return, are subject to the requirements of the catalog based upon the date of their return.

Transfer students' initial enrollment is the date upon which they enter Central Arizona College.

Nursing students' catalog year is based upon the year they are accepted into the nursing program.

All students have the option to choose the **current year catalog** for degree or certificate graduation requirements or follow their initial enrollment catalog. Students who complete a degree program and elect to pursue another degree are subject to the degree requirements of the catalog at the time they select the new degree. This catalog is for information only, and shall not be construed to create any contractual rights. Central Arizona College reserves the right, with or without notice, to change any or all fees, tuition or other charges; or to add, delete or modify any course or program offering, services, requirements for graduation, regulations, or any other information contained herein.

Program Requirements

There are a number of programs at CAC, including the nursing program, that have specific program requirements in order to meet the criteria for their particular accrediting bodies and licensing boards. In the case of these programs, the requirements may differ from the requirements of the college. It is necessary that students meet all program requirements for the individual disciplines according to the policies in place for each specific program.

Academic Advising

Students are encouraged to actively participate in their learning experience. Advising is a developmental process by which students are offered the opportunity to understand the nature and purpose of higher education and to plan courses and activities that support their career objectives. Students are encouraged to schedule return visits with their academic advisor to receive continuous support, resources, and services. The developmental advising model supports student's personal, academic and professional growth. Students are encouraged to participate in programs, classes and activities that help students develop a sense of community and identity with the college.

- **Orientation to College** is a program designed to introduce all students to the campus environment and provides information, resources, and connections that help students through the transition to college life.
- Advisors, faculty and staff are available to work with students in many capacities; they can help students become acquainted with the college and provide information and referrals.

Placement Testing

Prior to meeting with an academic advisor and registering for classes, most students will complete placement testing.

Students in the following categories must test:

- All new students enrolling in a degree or certificate program;
- Students registering in English, mathematics, or reading;
- Students registering in courses with a prerequisite in one of those fields.

Students may contact the Testing Center to make an appointment for placement testing.

Students may be exempt from the reading placement tests if they have earned 9 or more transferable, academic and literacy intensive* college credits (with a grade of C or higher) from a regionally accredited college or university as recognized by the U.S. Department of Education. Those students who have earned this exemption will be classified as having met the reading requirement for graduation. **Academic and literacy intensive shall be defined as courses that require college-level reading and writing activities as part of their core curriculum.*

Basic Skills

Students cannot "fail" their placement tests. Test results in reading, writing and mathematics are indicators of current student skill levels and are used to guide the selection of appropriate courses. Students may need to enroll in developmental courses to help gain the academic skills necessary for success at the college level.

Course Sequence and Prerequisite Courses

Courses numbered 100 to 199 are usually first-year (freshman level) courses; courses numbered 200-299 are usually second-year (sophomore level) courses. Courses with lower numbers may be prerequisites for courses with higher numbers and should be completed first. All prerequisite courses must be completed with a grade of "C" or higher to advance to the next course level. Course prerequisites are listed with the course descriptions in the back of the catalog.

Academic Advising for New Students

New degree-and certificate-seeking students are encouraged to meet with an academic advisor or faculty advisor prior to registering for the first time. The student and advisor will discuss the student's life and academic goals, review placement test scores, and select a program and courses consistent with the student's interests and level of preparation. Students are highly encouraged to visit their academic advisor frequently to create a Master Academic Plan and review their progress.



Academic Advising for Returning Students

Continuing students should see an advisor for assistance in developing a Master Academic Plan, and to track their progress toward completion of their degree or certificate. Advisors can help students with information regarding transfer to a four-year institution. Students who plan to transfer to one of Arizona's three public universities should consult AZ Transfer online at www.aztransfer.com

Reading Requirement

Demonstrated proficiency in reading is a requirement for all degrees awarded. Students must achieve an appropriate score on their placement test or complete RDG 094 with a grade of "C" or better to meet the college graduation requirement.

Reading is a prerequisite or co-requisite for many courses and programs. When test scores indicate a reading class is necessary, an academic advisor can help students select additional appropriate courses.

Academic Load

College level classes generally require two to three hours of outside preparation for each hour spent in class. To enable students to succeed in the classroom, the college monitors academic loads. Students may enroll in up to 20 credit hours without special permission. Students who wish to enroll in more than 20 credits during a regular semester must obtain approval from a Dean or designee.

Students carrying at least 12 credits during a regular semester are considered full-time students. During summer school, six credits per session are considered full time. Academic loads for short-term courses will vary with the required instructional time.



Orientation to College

Orientation to College (OTC) provides new and returning students and their families the opportunity to connect with other students, faculty and staff. One-day orientations include topics ranging from accessing academic resources, connecting to student activities, and navigating the Central Arizona College experience.

Call 800-237-9814, ext. 5597 for dates and times or register at www.centralaz.edu/orientation.

TRANSFER DEGREE INFORMATION

Arizona Transfer Information

Completion of an associate degree does not necessarily guarantee admission to a particular university's program of study. Students planning to earn a four-year baccalaureate degree should go to the Arizona Transfer website for detailed information on the Arizona Transfer Model and options. The Arizona public and tribal universities and community colleges collaboratively determine transfer articulation policies and procedures to help students easily transfer community college credits to the universities. These "transfer articulation agreements" apply to all Arizona public and tribal community colleges and universities.

In addition, CAC Articulation Agreements with select four-year colleges/universities provide a wide array of opportunities to students graduating with an associate's degree. Students are strongly encouraged to discuss Transfer/Articulation Agreement Options with their academic advisor during their first year. Some options require students to sign the agreement and follow a prescribed program course sequencing guide. Contact a CAC academic advisor for assistance and to review other special transfer agreement options and scholarship opportunities.

Use the following Arizona Transfer Resources:

Arizona Transfer (AZTransfer):

<http://steeringcommittee.aztransfer.com/>

Course Equivalency Guide (CEG):

<http://aztransmac2.asu.edu/cgi-bin/WebObjects/CEG>, and the **Reverse CEG** (university to college transfer) located at the lower left of the CEG website. Both provide specific course transfer information based on academic year.

Transfer Index of Tools & Policies:

<http://steeringcommittee.aztransfer.com/resources/>

AGEC-Web (courses transferable to the three Arizona public universities: <http://aztransfer.com/generaleducation/>

Degrees & Pathways: <http://aztransmac2.asu.edu/cgi-bin/WebObjects/ATASS.woa/wa/DegreePathwayAZ>

Major Guides: <https://aztransmac2.asu.edu/cgi-bin/WebObjects/ATASS.woa/wa/MajorGuideAZ>

Shared Unique Number (SUN) Course Matrix:

<http://www.aztransfer.com/sun/>

Transfer Pathways: <http://aztransfer.com/transferpathways/>

Arizona State **Math Competencies** are identified at:

<http://steeringcommittee.aztransfer.com/resources/mathcompetencies.html>



To determine **Credit by Examination** equivalencies for Advanced Placement (AP), College Level Examination Program (CLEP), International Baccalaureate Diploma Program (IB) and DANTES/DSST exams, see the **Exam Equivalency Guide (EEG)**: <http://aztransmac2.asu.edu/cgi-bin/WebObjects/ATASS.woa/wa/EEG>

Arizona General Education Curriculum (AGEC)

The AGEC fulfills lower-division general education requirements for students planning to transfer to an Arizona public university or community college. The AGEC transfers as a block of at least 35 credits which meet the target institution's general education requirements provided students earn a minimum degree cumulative grade point average (CGPA) of 2.0 on a 4.0 scale.

For assured admission to the Arizona public universities, AGEC completers are required to earn a minimum GPA of 2.5 in all AGEC courses and a degree cumulative grade point average (CGPA) of 2.0. For assured admission to the universities, Associate degree completers are required to earn a minimum CGPA of 2.0. Students are strongly encouraged to consult with both a CAC academic advisor and the target university's admissions advisor.



Students may refer to this topic within the **Degrees and Certificate** section for additional information.

Arizona Shared Unique Numbering (SUN) System

Arizona community college students planning to transfer to Arizona State University (ASU), Northern Arizona University (NAU) or the University of Arizona (U of A) may use the SUN System to identify transferrable courses. However students still need to confirm the course transferability at each of the three Arizona public universities; see the Course Equivalency Guide (CEG): <http://aztransmac2.asu.edu/cgi-bin/WebObjects/CEG>.

Because each student has a unique academic plan, students are strongly encouraged to seek academic advising prior to enrollment.

The Shared Unique Number (SUN) course numbering system identifies more than 80 CAC courses that transfer among Arizona's public community colleges and three state public universities.

SUN courses are identified by a three-letter prefix, four-digit course number and a SUN icon . SUN courses are labeled in university and community college catalogs, schedules and websites, making it easy for students to find transferable courses. In the CAC Catalog, students and others will also find the AGEC  icon next to many SUN courses.

SUN courses are a subset of the multitude of college courses that transfer among Arizona's colleges and universities. CAC accepts all SUN courses and applies them toward meeting CAC program requirements, provided the student earned a grade of "C" or better in each course.

For more information about the Arizona SUN System go to: <http://www.aztransfer.com/sun/>

Upper Division Course Transfer

Upper division courses from regionally accredited higher education institutions transfer as a CAC lower division course or as an elective, provided the student earned a grade of "C" or better. Students completing a CAC degree may find some of their CAC courses may transfer as 300-level courses to select CAC Transfer/Articulation Agreement institutions. Consult a CAC advisor and the program- or degree-specific Transfer Pathway document on that institution's website to confirm transferability and applicability of CAC coursework. Transfer Pathways are updated annually and Transfer/Articulation Agreements state specific student eligibility requirements, scholarship opportunities and the programs available.

Transfer Agreement Options

The aztransfer.com website offers transfer tips and valuable transfer tools for students, advisors, faculty and others. Students are strongly encouraged to consult a CAC academic advisor.

Special program agreements with partnering higher education institutions build upon the CAC associate's degree.

In addition, some transfer pathways accept 90 or more CAC credits towards a baccalaureate degree program; Northern Arizona University (NAU) currently offers a variety of 90 + 30 programs. Contact an academic advisor to determine the options available in your chosen field.

AAS to BAS Transfer Model:

The Arizona University System Model

Students who complete an AAS degree at one of Arizona's community colleges have two special program options for transferring to a BAS degree program at one of the Arizona public universities.

The 60+60 Credit Hour Model*

In this model, students transfer an A.A.S. degree as a 60 credit hour block toward fulfilling the requirements for the 120 credit B.A.S. degree. Students then complete 60 credit hours of upper division and specific lower division courses at the university granting the B.A.S. degree.

The 75+45 Credit Hour Model **

In this model, students earn an additional 15 credit hours at CAC of specified General Studies courses beyond the credit hours required for the A.A.S. degree, for a total of 75



transferable credit hours. Students then complete an additional 45 credit hours of specified courses at the university granting the B.A.S. degree.

Students must complete the additional 15 hours of lower division credits by taking general studies courses that meet Arizona General Education Curriculum (AGEC) criteria. Five courses are selected from six (6) areas of study depending upon the nature of the A.A.S. degree. The six areas are:

1. Mathematics/Computer Science
2. Natural Sciences
3. Humanities Fine Arts
4. Social and Behavioral Sciences
5. Literacy
6. Cultural/Global/Historical Awareness

Students must complete a mathematics course equivalent to, or higher than, College Mathematics (MAT141). If the math requirement is met by the program requirements of a specific A.A.S. degree, students may take the additional three hours in any one of the five remaining areas. The following table illustrates the relationship between the A.A.S. category and the possible distribution of the 15 credit hours.

Students are strongly encouraged to meet with an advisor to plan their course of study and to determine how their A.A.S. degree aligns with a specific university program.

* NAU's model is based on a 64 credit A.A.S. degree.

**There are A.A.S. to B.A.S. models with more than 75 credits which can be transferred. Consult a CAC academic advisor or an NAU advisor.

See Transfer Agreement options for AAS to BAS degree.

A.A.S. to B.A.S. (75+45 Credit Hour Model)

AAS Category	Math Computer Science	Natural Sciences	Humanities / Fine Arts	S / B Sciences	Literacy	Awareness	Total
HUM / FA	3	3	0	3	3	3	15
SB Sciences	3	3	3	0	3	3	15
Science / Health	3	0	3	3	3	3	15
Technology	3	3	3	3	3	0	15

Approved by APASC, April 29, 2011

Articulation and Transfer Options for Degree Completers

Albright College

1201 S Alma School Road, Mesa, AZ 85210
Suite 5400
480-659-3608/855-252-2749
mesa.albright.edu

Arizona Christian University

2625 E. Cactus Road, Phoenix, AZ 85032
800-247-2697
arizonachristian.edu

Arizona State University (see page 13)

1151 S. Forest Ave., Tempe, AZ 85287
480-965-2100/855-278-5080
<https://transfer.asu.edu/central-az>

Benedictine University

Gillett Hall, 225 E. Main Street, Mesa, AZ 85201
602-888-5500/866-295-3104
www.ben.edu/mesa

Chamberlain College of Nursing

2149 W. Dunlap Avenue, Phoenix, AZ 85021
602-331-2720
www.chamberlain.edu

College of St. Scholastica

15950 N. Civic Center Plaza, Surprise, AZ 85374
480-384-9995/866-478-9277
css.edu/Locations/Arizona.html

Fondazione Marco Polo SRL – Italy

<http://www.marcopoloinstitute.org/>

Frontier Nursing University

195 School Street, Hyden, Kentucky 41749
606-672-2312
www.frontier.edu

Grand Canyon University

3300 W. Camelback Road, Phoenix, AZ 85017
602-639-7500
www.gcu.edu

Kaplan University

3320 S. Price Road, Office 1408
Tempe, AZ 85282
866-527-5268
kaplanuniversity.edu

Northcentral University

1000 East University Drive, Prescott Valley, AZ 86314
928-541-7777
www.ncu.edu

Northern Arizona University (see page 14)

NAU-Extended Campuses' Pinal County
CAC-Signal Peak Campus
8470 N. Overfield Road, Coolidge, AZ 85128
520-421-1394
www.nau.edu/extended



Ottawa University

9414 N. 25h Ave., Phoenix, AZ 85021
800-235-9586
www.ottawa.edu

Palmer College of Chiropractic

1000 Brady Street, Davenport, IA 52803
800-722-2586
www.palmer.edu

Prescott College

220 Grove Avenue, Prescott, AZ 86301
877-350-2100
www.prescott.edu

University of Arizona (see page 16)

University of Arizona-Pinal
8470 N. Overfield Road, M Bldg. Coolidge, AZ 85128
520-449-3449
<http://uapinal.arizona.edu>

University of Maryland University College

3501 University Blvd. East, Adelphi, MD 20783
800-888-8682
www.umuc.edu

University of Phoenix

1625 W. Fountainhead Parkway, Tempe, AZ 85282
888-766-0766
www.phoenix.edu

University of the Potomac

1401 H Street, N.W., Suite 100, Washington, DC 20005
888-635-1121
<https://potomac.edu/admissions/transfer-students/>

Upper Iowa University

1361 S. Alma School Road, Mesa, AZ 85210
888-329-7290
<http://uiu.edu/locations/educationcenters/uscenters/mesa.html>

Western International University

1601 W. Fountainhead Parkway, Tempe, AZ 85282
602-943-2311/866-984-4636
www.west.edu

Arizona State University



Transfer Admission Guarantee

Programs (TAGs), AAS to BAS, RN to BSN

transfer.asu.edu/central-az

ASU has special partnerships with Central Arizona College. Through these close working relationships, we have created transfer pathways to provide you with a clear plan to achieve both your associate and bachelor's degrees.

A simple plan: Pathways are designed to guide you to take the community college classes you need to transfer to your major at ASU.

A simple goal: You'll experience a seamless transfer to ASU.

Contact your transfer specialist, and review timelines and admission requirements for ASU's transfer pathway programs at transfer.asu.edu/central-az

Transfer Admission Guarantee (TAG)

By choosing this path, you will follow a prescribed sequence of course work that meets the lower division requirements for your ASU major. (Not all ASU majors have TAGs, so check to see which programs are available.) When you complete your TAG, you will have met the requirements for your associate degree and be on track toward earning your ASU bachelor's degree.

Benefits:

- Receive guaranteed admission to your ASU degree program upon completion of the pathway requirements.
- Enjoy a cost-effective path ensuring all courses transfer and apply to your ASU degree.
- Arizona residents will be eligible for participation in the ASU Tuition Commitment program.
- Access to ASU representatives via in-person, phone or web-based appointments.

Sign up for a TAG with your CAC advisor.

RN to BSN pathway program

This program is ideal if you are pursuing an Associate of Applied Science degree in nursing and plan to earn a Bachelor of Science in Nursing.

Benefits:

- Apply up to 75 specified credit hours from CAC toward the BSN at ASU (a minimum of 45 credit hours beyond pathway requirements is required to complete the ASU BSN degree.)
- Receive guaranteed admission into ASU's RN to BSN program upon completion of the pathway requirements.



- Arizona residents will be eligible for participation in the ASU Tuition Commitment program.
- Access to ASU representatives via in-person, phone or web-based appointments.

Sign up for the RN to BSN pathway with your CAC nursing advisor.

AAS to BAS pathway program

This pathway allows you to earn an Associate of Applied Science and transfer into a Bachelor of Applied Science program at ASU.

Benefits:

- Receive guaranteed admission to a specific ASU Bachelor of Applied Science degree program.
- Transfer up to 75 credit hours toward the completion of the BAS degree program at ASU.
- Access to ASU representatives via in-person, phone or web-based appointments.
- ASU offers a variety of BAS programs, including health sciences, operations management, technology and more.

Contact an ASU advisor for more information.

transfer.asu.edu/aastobas/contact

General Transfer

Prefer to create your own path? You can transfer to ASU at any time and earn your bachelor's degree by meeting our transfer admission requirements. Use the Degree Search (asu.edu/degrees) tool to learn more about our 300+ undergraduate programs and career opportunities, and find out which courses will transfer to the university by using our Transfer Credit Guide (transfer.asu.edu/credits). Our transfer specialists (transfer.asu.edu/contact) are also available to help you prepare for your transfer to ASU by answering questions about the application process and guiding you to additional ASU resources.



Northern Arizona University Northern Arizona University (NAU) Flagstaff and Extended Campuses



*CAC2NAU, AAS to BAS, 90+30 Programs,
Personalized Learning, Graduate Programs*

Open doors to new opportunities by earning an undergraduate or graduate degree through [the Extended Campuses of Northern Arizona University](#) (NAU) or by attending the main campus in Flagstaff. NAU's programs are designed to help you advance in high-demand job fields such as criminal justice, healthcare, business, environmental and sustainable systems, and education. To learn more, visit www.nau.edu.

NAU-Extended Campuses serves busy professionals and working adults throughout Arizona with online, in-person, and hybrid classes, as well as a growing number of affordable transfer programs with community college partners like Central Arizona College. This way, you can take classes locally in your community or enjoy an engaging online learning experience supported by NAU's award-winning technical infrastructure. NAU also offers a number of degree programs at a flexible pace to fit your busy schedule.

NAU-Extended Campuses has been a leader in distance learning for more than 30 years and offers the lowest university tuition in the state. Degree programs accepting between 64 and 90 transfer credits continue to grow in popularity along with the number of students embracing the Extended Campuses alternative. Currently, some 35 percent of NAU students earn their degrees online or in their local communities. Learn more at nau.edu/extended

NAU Office on CAC

NAU-Extended Campuses' Pinal County office is located on the Central Arizona Campus Signal Peak in M-113K. NAU staff is available Monday through Thursday, 8 a.m. to 6 p.m., to answer questions. Call 520-421-1394 for more information.

2NAU Partnership

CAC and NAU are providing greater access and affordability for students to earn a bachelor's degree with the award-winning* 2NAU joint-admission program. As a participant in the CAC2NAU program, you are admitted to NAU while attending CAC. You earn your associate degree first, then seamlessly transition to NAU and complete your bachelor's degree—locally, online, or in Flagstaff.

**Recipient of Arizona's Pathways to Postsecondary Education Award*



2NAU Eligibility

Any student admitted to CAC is eligible to participate in the 2NAU program. All 2NAU students receive part-time non-degree seeking status. To be admissible as degree-seeking, students must meet NAU's admissions requirements before transitioning to the university.

(Note: Students who have started their last semester at CAC or who have already completed their community college coursework should apply directly to NAU following the *General Transfer* process below.)

2NAU Benefits & Features

- Expert guidance to help maximize credits earned at the community college.
- Waived NAU admission application fee.
- Access to NAU early enrollment.
- Access to library services at both institutions.
- NAU email account and ID card (JacksCard fee waived).
- Free admission to NAU athletic events in Flagstaff.
- Merit-based \$2,000 scholarship for those who qualify.

2NAU Degree Options

- NAU offers many degree programs online and in-person throughout the state. To see a complete list of our statewide programs, visit www.nau.edu/extended.
- For a list of majors available on the Flagstaff campus, visit www.nau.edu/admissions

Getting Started with 2NAU

To get started, visit www.nau.edu/why2nau. You may also contact your local CAC2NAU coordinator at cac2nau@nau.edu or by calling 520-421-1394.

2NAU Scholarships & Financial Aid

NAU offers transfer students scholarships and other financial support. 2NAU students may be eligible for the \$1,000 2NAU Joint Admission Transfer Scholarship (potential to earn it in two consecutive semesters for \$2,000 in total) and other opportunities; see: nau.edu/FinAid/Scholarships

General Transfer to NAU

After completing a CAC associate degree, students may transfer 64 or more credit hours into select NAU degree programs offered locally, online, or in Flagstaff.

Contact a CAC or NAU advisor for details, or visit www.nau.edu/extended to learn more about traditional transfer programs, career opportunities and admission requirements.

AAS to BAS Degrees

AAS degrees allow CAC students to transfer up to 75 credit hours and complete the remaining 45 credit hours toward a BAS degree through NAU.

90/30 Programs

NAU's 90/30 academic programs allow students to transfer up to 90 credit hours of community college and/or university credit from regionally accredited institutions and complete the remaining 30 upper division credits with NAU.

NAU now has eight 90/30 degree options:

- Career and Technical Education
- Emergency Management
- Humanities
- Intelligence Studies
- Law Enforcement Management*
- Nursing (RN-BSN)
- Public Administration*
- Technology Management

*(Ask about the CAC-NAU Weekend College at the Corporate Center.)

Personalized Learning (Self-Paced Online Option)

Through NAU's competency-based Personalized Learning programs, you can pursue an accredited bachelor's degree at our own pace for a flat rate of \$2,500 for six months of unlimited learning. Coursework is entirely online and customized to match your learning preferences and goals. You can also use what you know to test out of lessons and advance quickly in areas where you have already demonstrated competency. Financial aid available. Learn more at www.nau.edu/personalized.

Bachelor's & Beyond- NAU's Graduate Programs

Once you have earned a bachelor's degree, continue your education through NAU's graduate programs and fulfill your potential in fields as diverse as business administration, biotechnology, healthcare, environmental and sustainable systems, and education. Graduate degree programs include a number of flexible pace options to work with your schedule. Visit www.nau.edu/extended for information on graduate (including doctoral) programs offered.





University of Arizona

The University of Arizona provides Transfer Pathways for a variety of Bachelor's degree program options for students completing a CAC Associate's degree. Details for transfer pathway agreements are located at:

<http://admissions.arizona.edu/transfer/central-arizona-college-pathways-agreements>

Benefits to CAC Students/Employees and Family Members:

- Cost-effective pathway
- Transfer course applicability
- Access to UA transfer advisors
- Affordable, accessible degree programs offered in Pinal County
- Degree pathways from Associate of Science, Arts, and Applied Science degrees
- UA Pinal Coordinator on-site at the CAC Signal Peak Campus to assist you with the transfer process
<http://uapinal.arizona.edu/>

Eligibility Requirements:

- Completion of AGECE
 - C or better in each transferrable course
 - Specific majors will have minimum GPA requirements for admission; see transfer pathway agreements for more information:
<http://admissions.arizona.edu/transfer/central-arizona-college-pathways-agreements>
- UA Pinal Coordinator on-site at the CAC Signal Peak Campus to assist you with the transfer process <http://uapinal.arizona.edu/>

Terms of Agreement:

- a. Cumulative GPA and minimum grade for transfer courses: C (2.0) or better
- b. Tuition:
<http://www.bursar.arizona.edu/students/fees>. Students completing branch campus programs through UA Pinal are eligible for the UA South tuition rate.
- c. Fees:
<http://www.bursar.arizona.edu/students/fees>
- d. Deadlines:
<http://admissions.arizona.edu/transfer/dates-deadlines>
- e. Resident Transfer Application Fee: \$50
- f. Credit by Exam Options: Credit is awarded for certain AP, IB, and CLEP examinations:
<http://catalog.arizona.edu/2013-14/policies/profexam.htm>
- g. Military Credit: <http://catalog.arizona.edu/2013-14/policies/military.htm>
- h. Credit life limitations, if any: Applicability of transfer credit is determined with an academic advisor
- i. Scholarships available:
<https://financialaid.arizona.edu/>

Enrollment information:

- a. Transfer to UA main campus in Tucson:
<http://admissions.arizona.edu/transfer/steps-to-apply>
- b. Transfer to UA Pinal: <http://uas.arizona.edu/admissions>

Programs/Special Programs/Cohorts:

A variety of transfer pathways are available for Bachelor's degree programs at the UA and through the branch campus, UA South: <http://admissions.arizona.edu/transfer/central-arizona-college-pathways-agreements>

Students completing AAS degrees at CAC have the option of transferring to a Bachelor of Applied Science (BAS) program through UA Pinal, including majors in Administration of Justice, Early Childhood Education, Human Services, Informatics, Network Administration, and Organizational Leadership. The BAS is designed for students with work experience and/or an AAS to meet industry demands, utilize real-world situations and allow students to use practical knowledge and to advance in their career.

Prospective transfer students are encouraged to visit:
<http://transfer.arizona.edu/prospective-transfer-students>

AZTransfer Course Equivalency Guide:
<http://aztransmac2.asu.edu/cgi-bin/WebObjects/CEG>

Advising Information/Contact:

- a. UA Pinal Coordinator available for assistance at the CAC Signal Peak Campus Advising Center:
520-840-4878
<http://uas.arizona.edu/ua-pinal>
- b. UA Advising Resource Center
<http://www.advising.arizona.edu/>





Registration Information

Registration is regarded as a commitment by the student to comply with all regulations of the College. Students may register either in-person or via online services.

Any previous debt owed to the college must be cleared by the Business Office before students can register for classes. Photo identification is required for all transactions.

Tuition and fees must be paid in full at the time of registration. Failure to make payment arrangements may result in the loss of registration. Purge dates (withdrawal for non-payment) for each academic term can be found on CAC's website at www.centralaz.edu. Please note: If you are unable to pay the required tuition, there are other financial options such as a payment plan and/or financial aid.

Proposition 300 and the Arizona Revised Statutes require that all students must show proof of their citizenship, including employees taking courses. Students only need to provide citizenship proof once, not every time they register. The primary documents that are being requested are a copy of one of the following: a driver's license, a birth certificate, or a passport.

On Time Registration (OTR)

Students will only be permitted to enroll in a class that has not already met. The last day to enroll in an online class is the official start date for that class.

Online Registration

New and continuing students may register via the Internet at www.centralaz.edu by accessing online student services. Most CAC courses have prerequisites. A prerequisite is a course or minimum placement score that you must have successfully completed before you can register in a higher-level course.

Dropping or Adding a Class

Changes may be made to a current students' schedule before or during the first week of classes for semester-length classes. Please see refund information on the next page.

Adding Classes

Current students may add classes via the web or by filling out a Drop/Add form, obtaining the necessary signatures (if required), and submitting the form to the Records and Registration Office for processing prior to the semester start. During the official Drop/Add period, classes must be added prior to the first class meeting.

Dropping Classes

During the first week of the semester, students may drop a class that they no longer want to attend via the web or by completing a Drop/Add form and submitting it to the Records and

Registration Office for processing. When the transaction is processed, there will be no record of the class on the college transcript. It is the student's responsibility to drop the class if they no longer want to attend. Please see the tuition and fee schedule for the appropriate tuition refund.

No Show During Drop/Add Period

Students must make contact with their instructor during the first week of the semester. If contact is not made between the student and the instructor, all instructors are required to withdraw those students from class. To ensure CAC is in compliance with federal regulations the Financial Aid Office must check to see if it is necessary to recalculate the student's eligibility for federal student aid based on a revised enrollment status and cost of attendance.

Withdrawing from Classes/College

Regular/Short Term Courses:

Students can request an official withdrawal during the first two-thirds of the class based on the beginning and end date as listed in the schedule of classes. During this period a student may withdraw regardless of reason and must initiate and complete the withdrawal request through the registration office. Instructor permission is not needed. During the final one-third of the course, if there are extenuating circumstances, a student can request an official withdrawal. The approval of both the instructor and division chair or program director will be required.

Open Entry/Open Exit Courses:

Students can request an official withdrawal during the first two-thirds of the class based on the date of registration and last day of the semester. During this period a student may withdraw regardless of reason and must initiate and complete the withdrawal request through the registration office. Instructor permission is not needed. During the final one-third of the course, if there are extenuating circumstances, a student can request an official withdrawal. The approval of both the instructor and division chair or program director will be required.

Withdrawal Timeline:

Length of Class	Must Withdraw by Thursday of:
5 Week Course	3 rd Week
8 Week Course	5 th Week
10 Week Course	6 th Week
16 Week Course	10 th Week
Classes less than 5 weeks	Prior to the first day of class

Administrative Withdrawal

The college reserves the right to withdraw students from classes at any time during the semester.



Auditing

Students register to audit classes by indicating on the registration form that the course is to be audited. Auditing students register and pay tuition and fees in the same manner as students registering in courses for credit. No changes in student status from credit to audit or vice versa will be permitted after the student has registered.

Repetition of Courses

Students may repeat courses in order to improve their grades or to update their knowledge of the course material. Unless the course is identified in the College Catalog course description as being repeatable for credit, (such as some physical education, music, or other activity courses) the course only may be counted once for graduation.

When other courses are repeated, or when a repeatable course is taken beyond the number of allowable repeats, credits for those courses will not be applied toward degree or certificate requirements and may not be funded through financial aid. All grades earned will be posted to students' transcripts, however, only the highest grade will be calculated in the grade point average. If the student earns the same grade when repeating the course only the most current grade will be included in the grade point average. Students should review academic transcripts for including/excluding of repeated courses.

Academic Calendar

The college operates on a semester calendar with two 16-week semesters beginning in August and January and a shorter summer session beginning in May.

Numbering System

All courses carry a three digit number. Levels of instruction are designated by the first digit.

- 070-079 Special Interests (non-degree)
- 080-099 Developmental
- 100-199 First Year Level
- 200-299 Second Year Level

Refunds

Regular semester-length classes: 100% of tuition fees will be refunded for a regular semester-length class if the official withdrawal is made prior to the "Last Day of Semester Registration". 90% of the tuition fees will be refunded for a regular semester-length class if the official drop is made within the official Drop/Add period (please refer to the academic calendar for specific dates). There are no refunds for classes dropped after the official Drop/Add period ends.

Short-term classes: Any student officially withdrawing before the first day of class will be entitled to a 100% refund. There are no refunds for short-term classes dropped after the class starts.

Students withdrawing for medical reasons or any extenuating circumstance can submit a Tuition Appeal accompanied by adequate supporting documentation to the Registrar. All refunds and deposits that may be due to a student will be first applied to any outstanding debts owed the college. When the college is responsible for a change, i.e., cancelled class, time change, etc., the Business Office will mail the appropriate refund to students within 10 days.

Financial Aid

Financial Aid and Scholarships

Central Arizona College offers a variety of financial aid and scholarship programs to assist students in meeting their educational financial obligations.

The following is a description of the federal financial aid programs and the institutional programs provided by CAC.

Federal Financial Aid Programs

The federal government places the primary responsibility of educational costs on the student and the student's family. The student and the student's family are expected to contribute financially toward the student's cost of attendance. The Expected Family Contribution (EFC) is based on the family's income and assets. It is not uncommon for the EFC to be zero. Costs in excess of the expected contribution are considered financial need.

The federal government offers grant, work-study and loan programs to assist students in meeting their financial need. Generally, grant programs are offered only to students with a very low Expected Family Contribution (EFC). Student employment and loans are available to all students who have need. Some loan programs are not need-based.

Central Arizona College presently offers the following federal financial aid programs:

Title IV Programs

Grants

- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant

Work-study

- Federal Work-study

Loans

- Federal Direct Stafford Student Loan
- Federal Direct PLUS Loan (Parent Loan for Undergraduate Dependent Students)



State Programs

- Leveraging Educational Assistance Partnership

Student Eligibility for Federal Financial Aid Programs

To be eligible for federal financial aid, the student must:

- Be a degree seeking student in an Associate degree program or an eligible certificate program.
- Have financial need, except for some loan programs.
- Have a high school diploma, General Education Development (GED) Certificate, or have completed a secondary school education in a home school setting as defined under State law.
- Be admitted to the college as a “regular” student (see admission information).
- Be a U.S. citizen or eligible non-citizen.
- Have a valid social security number.
- Make satisfactory academic progress for financial aid purposes;
- Be enrolled in courses required for declared degree or certificate program;
- Sign a statement of educational purpose and a certificate statement on overpayment and default (on the Free Application for Federal Student Aid).
- Register with the Selective Service, if required.
- Not be in default on a federal student loan or not owe a repayment or overpayment to a federal grant program;
- Not have been convicted for sale or possession of illegal drugs while receiving Title IV Funds.

How to Apply for Federal Financial Aid

The first step in applying for federal financial aid is completing the Free Application for Federal Student Aid (FAFSA); CAC’s Title IV school code is 007283. Students who applied in the previous year should be able to complete a renewal/partially pre-filled application. Application must be complete and accurate. Incomplete or incorrect information will delay application processing. Students must apply each academic year.

Satisfactory Academic Process for Federal Financial Aid Recipients

In accordance with federal regulations, CAC must develop and apply a consistent and reasonable standard of academic progress. The satisfactory progress policy is established to carry out the statutory requirement that a student must be making satisfactory progress to be eligible for funding under the Federal Student Financial Assistance (SFA) programs.

Standards of Satisfactory Academic Process

At the end of each semester, the academic records of all federal aid recipients are reviewed for cumulative GPA, credit hours completed per semester and total hours/semesters completed.

Qualitative Measure

- Students must maintain at least a 2.0 cumulative grade point average (GPA).

Quantitative Measure

- Maximum Time Frame

Attempted credit hours may not exceed 150 percent of the published program of study (major). All credit hours attempted are considered when determining financial aid eligibility, whether or not financial aid was received. Hours for repeated courses are always counted in the 150% rule. Regardless of where the hours were attempted, Central Arizona College’s Satisfactory Academic Progress policy will apply.

Students lose eligibility for future awards after the semester in which they exceed the maximum hours. To determine the maximum allowable hours for a specific program of study (major), refer to the degrees and certificates section of the College Catalog, note the total hours required for the program and multiply the figure by 1.5.

Incremental Assessment

Earned credit hours must be at least 67 percent of attempted credit hours each academic year or semester, as applicable. A student who totally withdraws is unsatisfactory in terms of academic progress.

Return of Title IV Funds

If a student withdraws completely, Central Arizona College is required to follow specific guidelines as directed by the U.S. Department of Education. The guidelines are used to calculate the amount of federal aid that will be returned to the various financial aid programs.

When a student withdraws, any loan a student received will enter the grace period (as provided by the terms of that loan) and Central Arizona College will notify the lender(s) of the current status through the National Student Clearinghouse.

It is important to understand that the published Institutional tuition/fee refund schedule should not be confused with the calculation for returning federal student aid funds to the federal government. Each one is a separate calculation and they do not directly complement each other.

Contact the Financial Aid Office for details on CAC’s refund schedule and how the return of federal student aid is calculated.



Definition and/or Treatment of Terms

Incomplete Courses

Incomplete courses will increase attempted credit hours but not earned credit hours. There is no impact on cumulative grade point average (GPA). An incomplete may affect the student's Satisfactory Academic Progress status.

Course Withdrawal

Courses with grades of W will increase attempted credit hours but not earned credit hours and may affect the student's Satisfactory Academic Progress status.

Repeat Courses

The credit hours earned for a repeated course may only be counted once and will be considered accordingly in maximum time frame and incremental requirements. The grade for the repeated courses counted will have an effect on cumulative and semester GPA.

Change of Program of Study- Degree or Certificate

A student may be considered not making satisfactory academic progress when a change in a program of study is made prior to completion of that program.

Complete Withdrawal

A student is considered not making satisfactory academic progress when the student completely withdraws from school, whether official or unofficial.

Appealing a Decision

If a determination is made that a student is not making satisfactory academic progress, a student may appeal that decision based on mitigating circumstances. Procedures and forms for the appeal process and the reinstatement of federal financial aid are available online at www.centralaz.edu/finaid or by contacting the Financial Aid Office.

Payment of Financial Aid

A student's financial aid payment is based on the number of credits in which the student is enrolled that apply toward his or her declared degree or certificate program.

Financial aid awards may be adjusted based on the student's enrollment status as determined after the Drop/Add period, or in the case of late awards, at the time the award is approved.

Each student must be meeting all of the eligibility requirements at the time payment is issued.

Financial aid will not be disbursed until after the Drop/Add period. Only courses required for the declared degree or certificate will be included in enrollment status for payment of financial aid. If a course is not required for the declared degree or certificate, it will not be considered in the calculation of the financial aid award.

Institutional Scholarship Programs

Central Arizona College offers a variety of scholarship programs to recognize students for their academic performance as well as for participation in athletics and other activities.

A student may receive one or more of the following types of scholarships, not to exceed the cost of in-state tuition, registration and fees. To receive a scholarship, the student must meet the following conditions:

- Must complete the Free Application for Federal Student Aid (FAFSA)
- Must be pursuing a degree or certificate

New students are first priority. All scholarships must be coordinated with federal financial aid, and the total of all awards may not exceed the student's need as determined by the Financial Aid Office. All scholarships have minimum academic progress requirements. Students may not appeal these requirements.

The Financial Aid Office has information and applications for institutional scholarship programs as well as other non-institutional programs. Interested students should visit the Financial Aid website at www.centralaz.edu/finaid for scholarship details and application process.

Central Arizona College Foundation Scholarships

The Central Arizona College Foundation serves and supports the college as a two-year institution of higher education with the primary role of providing student scholarships. The Foundation receives donations from individuals, organizations, corporations and foundations to fund these scholarships.

The purpose of Central Arizona College Foundation Scholarships is to assist students enrolled at Central Arizona College in achieving their educational goals.

To receive a Central Arizona College Foundation Scholarship, the student must meet the following minimum qualifications:

- Complete the Free Application for Federal Student Aid (FAFSA);
- Pursue a degree or certificate;
- Coordinate with federal financial aid. The total of all awards may not exceed the student's need as determined by the Financial Aid Office;
- Enroll in a minimum of 6 credits per semester;
- Earn and maintain a 2.5 cumulative grade point average;
- Meet all other specific criteria as identified by each foundation scholarship.

Interested students should visit the financial aid website at www.centralaz.edu/finaid for scholarship details and application process.



Financial Aid Contact Information:

Central Arizona College
Financial Aid Office
8470 N. Overfield Road
Coolidge, AZ 85228

Aravaipa Campus
520-357-2816

Maricopa Campus
520-494-6401

San Tan Campus
480-677-7830

Signal Peak Campus
Student Services Center
520-494-5425
Fax: 520-494-5091

Superstition Mountain Campus
480-677-7708

E-Mail
finaid@centralaz.edu

More Information on Federal Financial Aid Programs:

Federal Student Aid Information Center
1-800-4-FED-AID (1-800-433-3243)
TDD Number 1-800-730-8913

Information on the World Wide Web

For more information on federal financial aid programs:

- www.centralaz.edu - Central Arizona College
- www.fafsa.gov - FAFSA on the Web
- www.ed.gov - Department of Education
- www.finaid.org - The Financial Aid Information Page
- www.students.gov - Student gateway to the U.S. Government
- www.studentaid.ed.gov - Federal Student Aid for students
- www.nslds.ed.gov - National Student Loan -Database System

Veterans Educational Benefits

Central Arizona College is approved for the enrollment of veterans, survivors and dependents. Veterans' services are provided by the Records and Registration Office.

Veterans must follow the admission policies and procedures as outlined for all students in this catalog. Veterans must pursue an approved degree program or a qualified certificate program

in order to be eligible for benefits. Transcripts from other institutions and for previous training must be forwarded to the Records and Registration Office to be evaluated and applied to the students' programs of study.

Student who is honorably discharged from the armed forces and demonstrated evidence of intent to be a resident of Arizona qualifies for in-state residency for tuition purposes. It is the responsibility of the Veteran to ensure they are classified under the correct residency status.

The number of semester credit hours in which a veteran must enroll (and maintain enrollment) in order to receive benefits is as follows:

Full-time	12 or more credits
3/4 time	9-11 credits
1/2 time	6-8 credits
less than 1/2 time	1-5 credits

STUDENT RECORDS

Student records are maintained in the Records Office.

Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 (FERPA) protects the privacy of educational records and gives students the right to review their educational records. In compliance with the Act, Central Arizona College has established policies and procedures for the review and correction of inaccurate or misleading information. Copies of the policies and procedures are available in the Records Office. Questions regarding the Act may be addressed to the Registrar.

Central Arizona College does not release any personally identifiable information about any student to a third party without the student's written consent. Directory or "public" information may be released at the college's discretion. Directory information includes name, address, dates of attendance, program of study, classification (freshman or sophomore), status (full- or part-time), and participation in officially recognized activities and sports, degrees, awards received, and previous institutions attended by the student.

Currently enrolled students may withhold disclosures of directory information by submitting a written request to the Registrar. Such requests must be renewed on a yearly basis.

Effective March 19, 1997, colleges are required to provide directory information to the Department of Defense. Students may request in writing to withhold the release of this information. Requests should be sent to the Office of the Registrar, 8470 North Overfield Road, Coolidge, AZ 85128.



Students Right to Know

In compliance with federal regulations, Central Arizona College must report the graduation rate for all students, as well as graduation rates for those students who receive athletically-related financial aid by the sport they play. Copies of this information may be obtained in the Records Office or may be viewed on CAC's website at www.centralaz.edu

Application for Graduation

Students applying for graduation must file an Application for Graduation with the Records office. Please see the official Academic Calendar for application deadlines.

To ensure that students satisfy their graduation requirements, it is recommended that students file their application at least two semesters prior to the start of their final semester.

There is no fee to graduate from CAC. If a student wishes to obtain an official diploma and/or certificate they will be charged a fee. Please see the Tuition and Fee schedule for appropriate diploma and certificate fees.

Catalog Under Which a Student Graduates

Students maintaining continuous enrollment at any public Arizona community college or university may graduate according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single catalog in effect during subsequent terms of continuous enrollment. Students may maintain continuous enrollment whether attending a single public community college or university in Arizona or transferring among public institutions in Arizona while pursuing their degrees.

- A semester in which a student earns course credit will be counted toward continuous enrollment. Non-credit courses, audited courses, failed courses, or courses from which the student withdraws do not count toward the determination of continuous enrollment for catalog purposes.
- Students who do not meet the minimum enrollment standard stipulated above during three consecutive semesters (fall/spring), and the intervening summer term at any public Arizona community college or university, are no longer considered continuously enrolled. They must meet requirements of the public Arizona community college or university catalog in effect at the time they are readmitted or of any single catalog in effect during subsequent terms of continuous enrollment after readmission.
- Students are not obligated to enroll and earn course credit during summer terms but summer enrollment may be used to maintain continuous enrollment status.
- Students admitted or readmitted to a public Arizona community college or university during a summer term must follow the requirements of the catalog in effect the following fall semester or of any single catalog in effect during subsequent terms of continuous enrollment.

- Students transferring between Arizona public higher education institutions must meet the admission requirements, residency requirements, and all curricular and academic requirements of the degree-granting institution.

University Department Time Limit for Coursework

In areas of study in which the subject matter changes rapidly, material in courses taken long before graduation may become obsolete or irrelevant. Coursework that is more than eight years old is applicable to completion of degree requirements at the discretion of the student's major department at the university to which they transfer.

Departments may accept such coursework, reject it, or request that the student revalidate its substance. The eight-year limit on coursework applies except when program accreditation agencies limit the life of coursework to less than eight years.

Departments also may require students to satisfy current major requirements rather than major requirements in earlier catalogs when completing earlier requirements is no longer possible or educationally sound.

Credit by Examination

Students currently or previously enrolled at Central Arizona College may earn a maximum of 30 credit hours through credit by examination. Students cannot receive credit by examination for a course that is equivalent to - or a lower level than - a course in which they are currently enrolled or have previously completed.

Credit by examination is offered on the principle that students may have previously acquired college level learning in certain areas and that this knowledge may be demonstrated through an examination of course competencies. Instructors are not responsible for helping students develop this knowledge in order to prepare for an examination.

Should a student transfer to another institution, credits earned through credit by examination may be treated differently by that institution. Please refer to the AZ Transfer Examination Equivalency Guide (EEG) for credit by exam scores accepted by CAC and their CAC course equivalencies:

<https://aztransmac2.asu.edu/cgi-bin/WebObjects/ATASS.woa/wa/examquery>

Central Arizona College examinations for credit:

With approval, students have the opportunity to earn credit by successfully completing an examination at the beginning of the semester. This option is not available for all courses. Check with the course instructor and division chair as to the availability of credit by exam.



Advanced Placement from High School:

These examinations are administered in various high schools and are designed to test competence in specific subject areas at the lower division college level. High school seniors may request the opportunity to participate in advanced placement examinations through their high school counselor's office. Credit may be earned for successfully completed exams. It is the student's responsibility to submit an official score report.

College Level Examination Program (CLEP):

CLEP examinations are nationally developed and administered. The examinations provide an opportunity for students to demonstrate college level learning in a variety of subjects. CAC offers general and subject CLEP examinations. CAC will award credit for successfully completed exams upon the receipt of an official score report.

Subject/General CLEP Examinations: These exams cover material typical of college level courses. A listing of available on the CLEP website: clep.collegeboard.org.

Credit by Evaluation:

CAC does not generally evaluate or award credits for non-collegiate training or experience. The exceptions-listed below are treated as articulated credit and may be treated differently by another institution should the student transfer.

Military Experience: Credit will be awarded for military experience and training if it has been evaluated by the American Council on Education and published in either the *Guide to the Evaluation of Educational Experiences in the Armed Services* or an individual's transcript from either the Community College of the Air Force or on the Army/AARTS transcript.

COTA: Students completing the Correctional Officers Training Academy may be awarded up to 21 credits toward their A.A.S.

Conferring a Second Degree

Students who complete an Associate in Arts, Associate in Applied Science, Associate in Business, Associate in Science, or Associate in General Studies degree program at Central Arizona College may earn a second degree. Students who wish to obtain an additional degree must meet the following criteria:

- Students must have **completed** the requirements for an associate degree.
- Students must meet all the requirements of the second degree as outlined in the catalog in effect at the time of initial enrollment in the second degree program.
- Students must complete a minimum of 16 credits at Central Arizona College, beyond those previously used in the awarding of the first degree.
- Credits applied to the second degree must be completed with grades of "C" or better.
- Student must apply through the normal graduation application process.
- The Associate of General Studies will not be awarded as a second degree.

ACADEMIC STANDARDS

Plagiarism

Central Arizona College recognizes the seriousness of plagiarism as an ethical issue. Blatant plagiarism results from dishonesty and/or infringement upon the rights of published authors. The first type of blatant plagiarism is turning in writing that is falsely represented as one's own, including (but not limited to) a roommate or spouse's writing, essays bought from the Internet, and passages copied from a research source such as a book, magazine, or website. Allowing another student to copy one's work is a second type of blatant plagiarism. Students also are expected to avoid subtle plagiarism, which includes (1) turning in writing that uses paraphrased information from a source but fails to credit the source and (2) allowing someone else to make significant revision or editing changes to a student's own writing. Penalties for plagiarism, according to Violations of Code of Conduct, can be severe, including failure of an assignment and failure of a course at discretion of instructor. The underlying message of the Central Arizona College plagiarism policy is that instructors are committed to encouraging writers to develop the confidence to express themselves in their own unique ways.

ATTENDANCE

Absence Policy

No Show Reporting During Drop/Add Period

Students must make contact with their instructor during the first week of the semester. If contact is not made between the student and the instructor, the instructor is required to withdraw the student from class. This ensures CAC is in compliance with federal regulations as the Financial Aid Office must recalculate student eligibility for federal student aid based on a revised enrollment status and Cost of Attendance.

Excused Absences

Absences from class due to authorized participation in College sponsored activities will be considered as excused absences. Absences due to student or family member illness, death of family member, or other extenuating circumstances will be considered for excused absences. There will be no institutionally sanctioned penalty associated with excused absences. Designation of excused absences will be made by the Academic Dean.

The faculty or staff sponsoring an activity requiring students' absence shall provide a written list of students to all faculty at least one (1) week prior to the absence. One list may be distributed to cover absences during an entire semester.

Unexcused Absences

Absences other than excused will be considered unexcused absences. Instructors may recommend to the Division Chair the administrative withdrawal of a student from class for excessive



unexcused absences, and no refunds will be authorized. Students may appeal administrative withdrawals to the Academic Dean.

Make-Up Assignments and Exams

The student is responsible to make up any assignments or exams missed because of an excused absence. Arrangements for make-up assignments or exams must be made with the individual instructor prior to the absence. At the discretion of the instructor, a student may be denied the opportunity to make up assignments or exams missed because of an unexcused absence. Make-up assignments or exams for unexcused absences shall not be punitive in nature.

Punctuality

Students are expected to be prompt in attending each of their classes. Instructors are authorized to take appropriate actions, including recommending administrative withdrawal of a student from class because of excessive student tardiness.

Exception to Policy

An instructor wishing to employ a teaching strategy (such as contract learning) in which the attendance records required above are inappropriate, may propose to the Academic Dean a system which deviates from the above guidelines. If the Dean ascertains that the proposed system adequately monitors student activity and progress, or is in compliance with certain professional licensing and/or certification regulations, it may be implemented.

Non-Credit Classes

Attendance requirements in non-credit classes may be established by the instructor. These requirements will not be more stringent than those adopted for credit granting classes.

Attendance Requirements

Central Arizona College students are expected to attend all class meetings.



Grading

Grading Information

Grades are designed to reflect content mastery and the student's performance in meeting the course objectives.

- A - Excellent Work (4 points)
- B - Good Work (3 points)
- C - Average Work (2 points)
- D - Below Average Work (1 point)
- F - Failing Work (0 points)
- I - Incomplete
- W - Withdrew
- AU - Audit
- CR - Credit (see explanation below)
- NC - No Credit (see explanation below)
- S - Satisfactory (see explanation below)
- U - Unsatisfactory (see explanation below)

Incomplete (I) Grade

Students who, because of circumstances beyond their control, cannot complete a course in the time allotted, may be given an extension and temporary grade of Incomplete (I) by the instructor. When electing an Incomplete Grade, the student is forfeiting the option of a withdrawal from the class.

If a grade of Incomplete is given, the instructor shall state in writing on an Incomplete Grade Contract form, the activities necessary to complete the course. The contract will include the time period (not to exceed seven months) allowed for completion of the course, and the letter grade which the incomplete grade will automatically revert if the work is not completed. The contract will be signed by both the instructor and the student. Each will receive a copy. A copy of this contract must be submitted with the final grade roster for that course.

The *Incomplete Grade Contract* must be completed no later than seven months after the end of the term in which the incomplete grade was given. Students should not re-register for the course to complete the contract.

Audit (AU) Grade

Students may register for audit at the time of registration. Auditing students register and pay tuition and fees. No changes from audit to credit (or from credit to audit) are permitted after the student has registered. Students do not receive credit in courses for which they enroll as audit. Audit (AU) grades do not count in the grade point average calculation.

Credit/No Credit

Students receive a credit (CR) or no credit (NC) grade for self-interest courses numbered between 70-79. Credit (CR) signifies successful completion of the course, but the credit hours do not count toward completion of any degree or certificate listed in this catalog, nor does the grade count in the grade point average calculation. A grade of NC does not count in GPA calculation.

Satisfactory/Unsatisfactory

Satisfactory (S) indicates the student has a "C" or better work in class. The grade is not computed in the GPA.

Unsatisfactory (U) indicates the student has earned a "D" grade or failed the class. The grade is not computed in the GPA.

If a course description in the College Catalog indicates a course may be taken for a satisfactory/unsatisfactory grade, the student



may elect the satisfactory/unsatisfactory option. This must be done in writing in the Records and Registration Office no later than the deadline to add classes as published in the appropriate schedule of classes. The deadline to add classes also is the deadline to change from a satisfactory/unsatisfactory to regular A-F grading or audit status.

Students electing the satisfactory/unsatisfactory option should be aware that:

- Once awarded, the satisfactory or unsatisfactory grade may not be changed to a letter grade.
- The satisfactory grade is equivalent to a grade of “C” or better; however, neither the satisfactory nor the unsatisfactory grade is calculated in the GPA.
- The satisfactory grade may carry credit toward graduation or toward meeting professional requirements. A maximum of 12 credit hours of S grades may be applied toward a degree, and a maximum of 25 percent toward a certificate.
- The satisfactory grade shows on the transcripts as credit hours earned for the semester and will be used toward meeting the credit hours required of a full-time student and toward determining financial aid eligibility.
- The unsatisfactory grade shows on the transcript but not as credits earned for the semester; therefore, the unsatisfactory grade does not count toward meeting the hours required of a full-time student or toward determining financial aid eligibility.
- Courses taken for satisfactory/unsatisfactory credit for which a grade of satisfactory is earned will satisfy prerequisites and co-requisites; a grade of unsatisfactory does not fulfill prerequisites and co-requisites.
- It is the student’s responsibility to verify the transferability of satisfactory grades. Students are cautioned that satisfactory grades may not be accepted for transfer credit to other post-secondary institutions; some may translate the unsatisfactory grade as failing.

Calculation of Grade Point Averages:

Grade point averages will be calculated for each student at the conclusion of each term. When a course is repeated, the highest grade will be included in the GPA. A “Report Course Form” must be completed in the Records and Registration Office if the course is being taken to improve a previous grade.

Computing Your G.P.A. Worksheet

Use the following formula to compute your grade point average:

Grade points divided by the number of hours equals the grade point average. Grade points can be determined by multiplying the credit hours for a course by the grade as follows:

A = 4 points, B = 3 points, C = 2 points, D = 1 point and F = 0 points

Note: W does not compute into GPA.

The Formula:

1. Number of Hours for Each Class	Number of Points for Each Class	Total by Class
_____x	_____	_____
_____x	_____	_____
_____x	_____	_____
_____x	_____	_____
_____x	_____	_____
_____x	_____	_____
_____	_____	_____
2. Total Number of Hours		3. Total Points
4: _____ ÷ _____ = _____		
(Total Points)	(Total Number of Hours)	GPA

Grade Change/Appeal

Grade changes are not allowed except in the case of faculty error in reporting the grade. Such changes must be initiated by the end of the tenth (10th) week of the first semester following the semester in which the grade was assigned (Policy 583).

Students may appeal grades by following the process described on the College web page titled Resources in Addressing Concerns > Academic Concern (www.centralaz.edu/concern).

Academic Progress

Academic progress is a system of monitoring students to achieve an educational objective. Academic probation is a process to:

- Identify and alert students who are experiencing difficulty in making satisfactory progress in their coursework.
- Help students reassess their objectives and to consider methods necessary to achieve educational success.

Academic Probation

Students who have accumulated 12 or more semester credit hours and have a cumulative GPA of less than 2.0 will be placed on academic probation. Academic probation students whose following *semester* grade point average is 2.0 or above, but *cumulative* grade point average remains below 2.0, will remain on academic probation. Students placed on academic probation status must comply with the recommendations outlined in the Academic Probation Agreement Plan designed in collaboration with a professional academic advisor.

Students placed on academic probation will be notified via postal mail of their standing. It is the responsibility of the student to ensure the institution has updated contact information on file.

Academic Suspension

Students on academic probation status will be suspended from the college when the semester or cumulative GPA is below 2.0 in a subsequent semester. Students who are suspended a first time will be eligible for readmission after one semester has elapsed since the dismissal. Students who are suspended a second time will not be eligible for readmission until one year has elapsed since the suspension. Upon readmission after a



suspension, students will be on academic probation until their cumulative GPA is 2.0 or higher.

Students who have been suspended may submit an Academic Suspension Appeal to the Designated Academic Suspension Official to request reinstatement. An appeal for reinstatement may be granted if the action is warranted due to extenuating circumstances beyond the control of the student. Students who have been granted reinstatement will be placed on academic probation status until their cumulative GPA is 2.0 or higher. Students are encouraged to meet with an academic advisor to obtain an Academic Suspension Appeal form, support and guidance to complete the process. Refer to the academic suspension letter or contact the College for the due date to submit your appeal.

Students placed on academic suspension will be notified via postal mail of their standing. It is the responsibility of the student to ensure the institution has updated contact information on file.

Academic Renewal Guidelines

A student returning to Central Arizona College after an absence of at least 3 years may petition the Registrar to have specific grades excluded from the computation of the cumulative grade point average according to the following guidelines:

- The student must complete 12 or more credits with a grade point average of 2.0 following re-enrollment after the three-year absence.
- Only grades of D, F are eligible for renewal.
- Academic renewal may be granted only once during a student's enrollment at Central.
- Grades remain on the student's transcript but are not computed in the cumulative GPA.

Academic Honors Recognition

Dean's and Honors List

Students will be placed on the Dean's list with a 3.5 semester GPA or above. Students will be placed on the Honors List with a semester GPA of 3.00-3.49. Both lists require:

- Completion of 12 or more credits or;
- Completing 12 credits and enrolled in at least 6 credit hours each term.

Graduation with Honors

Students awarded an associate degree with a cumulative GPA of 3.5 or above will be awarded the distinction of "Graduating with Honors." An honor seal will be posted to the diploma.

Phi Theta Kappa

Phi Theta Kappa, the international honor society for community college students, is open to students who have a grade point average of 3.50 or better and have completed 12 college-level credit hours at CAC. Through this organization, students have an opportunity to develop leadership skills and to perform service to the college, campus and community.

Honors Program

The honors program is available for academically exceptional students. It encourages students to question, research, discover and debate ideas in various curricular areas. The insight gained through individual probing will be shared with professors and students to broaden the student's awareness in a variety of areas. The scholarly inquiry in this program will provide a strong base for a lifelong quest for knowledge and excellence.

Goals of the Program

The following goals have been established for the Honors Program:

- To extend the curriculum offering academically talented students intellectual opportunities beyond those found in the normal curriculum;
- To provide recognition for exceptional academic achievement;
- To provide a program to assist honors students in successfully transferring to honors programs at other institutions;
- To provide the greatest efficacy in learning through small classes and individualization;
- To provide a structured setting in which academically talented students can socially interact with one another and faculty.

Scholarships

The honors scholarship may be used to cover registration fees, tuition, books and supplies. The student must maintain a 3.5 cumulative GPA and will receive a similar scholarship the second year of their program.

Admission to the Honors Program

Applicants should meet any one of the following criteria:

- 3.5 grade point average at high school graduation;
- Top 5 percent of high school graduating class;
- 3.5 grade point average at Central Arizona College with a minimum of 12 transferable credits.
- Additional consideration may include review of GED, ACT or SAT score.

In addition to the above criteria, prospective applicants must provide:

- Two current letters of recommendation from educators;
- A 250-word statement of the applicant's goals and his/her expectations of the Honors Program.

Retention in the Honors Program

- Students must maintain a 3.5 GPA for regular status.
- Students may be placed on probation for one semester if grade point average is between 3.25 and 3.5 and may be readmitted to regular status when the GPA returns to 3.5 or above.
- Students must have received a grade of "B" or better in all previous honors courses.



Graduation from the Honors Program

- 3.5 grade point average with a B or better in all honors courses and in each course taken for honors credit;
- 6 hours of completed colloquia;
- 9 hours of courses taken for honors credit (from 3 different divisions);
- 3 hours honors seminar.

SERVICES

Central Arizona College provides equal opportunity in employment and educational programs and activities. Discrimination is prohibited on the basis of race, color, religion, sex, age, disability, national origin, military status, genetic test information, sexual orientation, or gender identity or expression.

Title IX

Central Arizona College (CAC) seeks to foster a community environment in which all members respect and trust each other. CAC has policies relative to Title IX that support nondiscrimination and prohibit discriminatory behavior including sexual harassment and sexual violence. Such policies apply to all educational programs, services, activities and facilities. For more information regarding Title IX processes and policies go to:

<http://www.centralaz.edu/Documents/advising/506%20Policy%20-%20Sexual%20Misconduct.pdf>

A victim of sexual misconduct may file a complaint with the Title IX Administrator, who will assist the victim with resources and information regarding the filing of charges. Any student or employee who becomes aware of an incident of sexual misconduct should contact the Title IX Administrator immediately to ensure that the College responds timely and appropriately. The college may bring charges in the absence of a complaint from a victim.

When a victim reports Title IX related misconduct, the College will provide the victim written notification of available options, including information on filing a complaint within the College, information on filing a criminal complaint, and information on pursuing both options at the same time. This notification will also include information about resources and supportive services available to the victim both on and off campus.

Inquiries concerning Title IX policies or the filing of a specific complaint may be referred to CAC's Title IX Administrator, Jani Attebery, Assistant Dean of Academic Affairs, at (520) 494-6614 or jani.attebery@centralaz.edu.

Bookstore

The Maricopa, San Tan Valley, Signal Peak and Superstition Mountain campuses provide full-service bookstores to accommodate students with textbooks, supplies and clothing. Evening hours are posted during the first two weeks of class and book buy back week, which is always scheduled during the week of finals.

Bookstore Refund Policy

A full refund will be given in your original form of payment if textbooks are returned during the first week of classes with original receipt. With proof of schedule change and original receipt, a full refund will be given in your original form of payment during the first 30 days of classes. No refunds on unwrapped loose leaf books, shrink wrapped books, access codes or activated eBooks. Textbooks must be in original condition. No refunds or exchanges without original receipt.

Career & Student Employment Services

Career & Student Employment (CSES) is located in the M Building on the Signal Peak Campus. The CSES provides comprehensive guidance to students as they pursue future college and career aspirations. The CSES is committed to providing resources, information and services for students to transition to the workplace and to further their academic studies.

Career Exploration

This is an opportunity for students to explore various fields of study and possible career options. Career exploration can be done via the online assessment tool or using the numerous printed resource materials available.

Internships

Internships are supervised, practical training that provides students the opportunity to gain valuable "on-the-job" experience while pursuing an education in a related field. Central Arizona College offers internship courses for academic credit. Should you require more information or assistance contact Experiential Learning at 520-494-5987 or 480-677-7852.

Student Employment

Student employment provides equitable hiring practices for all students seeking employment whether on- or off-campus, full-time, part-time, temporary or seasonal. This is an opportunity to gain practical work experience and knowledge in a specific career-related field. All available job opportunities can be viewed via the web-based job posting board, available 24 hours a day, seven days a week.

To view available jobs, students must first register. Registration for the web-based job board is simple, just go to *student resources* and scroll down to *Career and Student Employment Services*. Choose *student employees* then select *student employment process*. Once in the page, click on "*full-time/part-time job posting*" and complete the registration. In



order to view the positions, you must provide a valid e-mail address that you check on a regular basis. Just follow the instructions to complete your registration. Should you require more information or assistance, send an e-mail to studentjobs@centralaz.edu or call 520-494-5424 or 1-800-237-9814, ext. 5424.

Additionally, students can attend workshops to assist with the creation of cover letters, resumes and interview skills.

Employment Eligibility Requirements

There are three employment options available for students. Each employment option has different eligibility requirements. All students are required to complete the Free Application for Federal Student Aid (FAFSA) prior to seeking employment for an on-campus position.

College Federal Work Study Program

The Federal Work-Study Program is a federally funded program designed for students who have demonstrated financial need using the Free Application for Federal Assistance Aid (FAFSA). Students who are employed under this program must meet the additional eligibility requirements:

- Must be enrolled in an eligible program of study.
- Must maintain Satisfactory Academic Progress. More information is available under the Financial Aid section.
- Students must be enrolled in at least six (6) credits to qualify.

College Funded Student Employee

All students can apply for this type of employment option. Students are employed part-time by the department or division within the college and do not have to show financial need. The student must be enrolled in at least six (6) credits to qualify.

Off-Campus Employment:

There are no enrollment requirements for positions that are located off-campus. This option is available for students seeking employment options that are not available on campus. Off-campus employers post available positions on the web-based job board and students may apply for positions at their discretion. Off-campus job wages may be higher than on-campus positions.

Central Help Desk Services

The Central Help Desk provides a central location for customer and student support. As the first point of contact for student services, the Help Desk offers a wide variety of assistance, which includes resetting passwords, assistance with the use of Online Student Services, troubleshooting Blackboard, CAC e-mail, and general customer service. For students using Blackboard, Central Help Desk can provide a copy of the Handbook for Online Learners and information about the Student Hands-On Orientation to Online Learning (SCHOOL). Also, whether you need to find out how to register for classes or where to go for tutoring, the Help Desk can point you to the right college department.

There are several methods to access assistance:

Phone: 520-494-5111 or 1-800-237-9814, ext. 5111

Email: centralhelpdesk@centralaz.edu. Central Arizona

College Website: Help and FAQs provide a list of frequently asked questions. See front page of the CAC website.

Service Desks:

- Signal Peak Campus in the M Building (Student Services). Open from 8 a.m. to 6 p.m. Monday through Thursday.
- Superstition Mountain Campus in the Teaching and Learning Center (TLC). Open from 8 a.m. to 6 p.m. Monday through Thursday.
- Aravaipa Campus in the A Building. Open from 8 a.m. to 6 p.m. Monday through Thursday.
- San Tan Campus in the B building. Open from 8 a.m. to 6 p.m. Monday through Thursday.
- Maricopa Campus in the A building. Open from 8 a.m. to 6 p.m. Monday through Thursday.

Food Services

The Signal Peak, Superstition Mountain, Maricopa, San Tan Valley and Aravaipa campuses offer on-campus food service. At the Signal Peak Campus, meals are served seven days per week for residence hall students. The dining hall and Top of the Stairs Cafe at Signal Peak offer food service for students, staff and guests. For menus, hours and locations visit, www.centralazdining.com or call (520) 494-5452.

Meal Plan Options

Living On Campus

Students planning to live on campus must purchase a 19 meal per week meal plan. The fee for this meal plan is included as part of the room and board fees assessed through Residence Life. Prices are listed on the Central Arizona College home page: Home>Admissions>Paying for College.

Catering

Catering service may be arranged by contacting the Catering Manager at 520-494-5034 or by visiting www.caccatering.catertrax.com.

General Educational Development (GED) Classes

Central Arizona College offers GED (high school equivalency) courses. The classes include instruction in the four areas tested on the GED® 2014: Reasoning through Language Arts, Mathematical Reasoning, Science and Social Studies.

GED classes are individualized as much as possible and include computer-based instruction. The time it takes a student to prepare to take the test varies with the individual student and depends on such factors as regular student attendance and the skill level in the areas of reading, math and writing upon entry.



GED classes are held at various locations throughout the county.

GED Test

GED (the high school equivalency examination) tests are given at the college by an independent examiner appointed by the State Department of Education and certified by Pearson Vue Testing.

The cost of the GED test is \$140. Retests are \$35 per subject. Scheduling and payment of fees is done through the website GED.com.

Requirements to take GED Test

If under the age of 18 but at least 16 years old, an examinee must:

- Have officially withdrawn from high school (a letter from the last attended school is required as verification of this status.);
- Have their parent's/guardian's notarized written permission to take the test if the examinee is not married;
- Present two forms of I.D., including one picture I.D.

If 18-years-old or older, an examinee must:

- Not be a high school or GED graduate;
- Not be currently enrolled in high school;
- Present two forms of I.D., including one picture I.D.

Intercollegiate Athletics

Women's sports at the Signal Peak Campus include basketball, softball, track & field, cross country, volleyball and rodeo.

Men's sports at the Signal Peak Campus include basketball, baseball, track & field, cross country, and rodeo.

Central Arizona College is a member of the National Junior College Athletic Association (NJCAA), the Arizona Community College Athletic Conference (ACCAC) and National Intercollegiate Rodeo Association (NIRA). Central Arizona College has one of the most successful athletic programs in the ACCAC and NJCAA. It has posted 38 national championships and numerous second- and third-place finishes over the past four decades.



Individuals desiring information concerning Central Arizona College's intercollegiate athletic programs under the Equity in Athletics Disclosure Act of 1994, Section 360B of Publication L.103-382, may obtain this information from one of the following offices: Chief Student Affairs Office or the Athletic Department.

Athletic Records

National Championship teams and year:

- Baseball 1976, 2002
- Women's Basketball 1989, 1998, 2005, 2009
- Men's Cross Country 1988, 2002, 2003, 2005, 2012, 2013, 2014
- Women's Cross Country 2005, 2009
- Women's Rodeo 1978, 1979, 2014
- Softball 1984, 1985, 1988, 1989, 1990, 1991, 1992, 1995, 1997, 1999, 2003, 2005
- Men's Track & Field 1996, 2005, 2006, 2007
- Women's Track & Field 1998, 1999, 2006, 2007, 2008
- Volleyball 1983

The George Young Activity Center is used for all home volleyball matches and basketball games. Outdoor athletic facilities include: an eight-lane all-weather track & field, baseball and softball fields, rodeo arena, tennis courts, and a 50-meter swimming pool. For more information, contact the athletic department at 520-494-5300 or 800-237-9814, ext. 5300.

Learning Support Department

Central Arizona College provides free tutoring for students in most academic areas of study through the Learning Support Department. The tutors work with students individually and/or in small groups to address the various learning needs of students. In addition, tutors use several modalities including, but not limited to, face to face, online, interactive television, tutor stations, email, and phone to assist students in their academic endeavors. The Learning Support Department via the Learning Centers has customized, success skills workshops and computerized tutorials for many CAC courses as well as computer-assisted instructional programs for coursework and/or independent study. For further information, please contact the Learning Center at the Aravaipa, Maricopa, San Tan, Superstition Mountain, or Signal Peak campuses.

Library

The library has facilities located at the Maricopa, San Tan, Signal Peak, Superstition Mountain and Aravaipa campuses. Librarians are available for both online and in-person assistance with student research needs. The library also offers research workshops throughout the semester. The library facilities have computer workstations, printing, Wi-Fi, and study areas. Online resources, including millions of journal articles and over 125,000 eBooks, are available to students 24 hours a day. The library's print book collection contains over



85,000 volumes district-wide, includes government resources, and can be searched through the library's online catalog or by asking library staff for assistance.

Disability Resource Services

Disability Resource Services is dedicated to supporting and empowering students with disabilities by providing self-advocacy opportunities and independence.

Services may include, but are not limited to:

- Assistive Technology
- Note-taking Services
- Testing Accommodations
- Sign Language interpreting
- Referral to Campus and Community Resources
- Advocacy with Faculty and Staff

Obtaining Services

In order to receive accommodations, students must provide written documentation of their disability to the Disability Resource Services office. Once the documentation has been submitted the student may make an appointment with Disability Resource Services staff. To reach the Disability Resource Services Office please call 520-494-5409, or 800-237-9814 ext. 5409, or visit the Signal Peak Campus office in M115.

Concern or Complaint

If you have a concern or complaint about a disability related issue, please contact the Disability Resource Services Coordinator at 520-494-5409. If you need additional assistance please contact the Dean of Students office at 520-494-5431.

TRIO Student Success Program

The TRIO Student Support Services program, located on the Signal Peak Campus, is designed to assist first generation, low-income students and students with disabilities by providing support and services throughout their academic career and transition to a university. Services include personalized academic advising, peer/faculty mentoring, monitored academic tutoring, cultural events, scholarship opportunities, and much more. The goal of the program is to increase the retention, graduation and transfer rates of TRIO participants. For more information visit the TRIO webpage at www.centralaz.edu/trio or call (520) 494-5007. TRIO is on Facebook and Twitter at CAC TRIO.

TRIO Summer Bridge

The Summer Bridge program is an exciting and valuable week-long college orientation program designed to give you an edge in succeeding at CAC. The program takes place on the Signal Peak Campus and is for recent high school graduates or GED recipients. Students live in the residence halls, go through a number of mini classes, participate in discussion groups, join in many activities and explore college life. It is a very full week where you will meet a number of students and interact with many of the faculty and staff at CAC.

For more information please visit the TRIO Summer Bridge website at www.centralaz.edu/summerbridge or call 520-494-5007.

WIA Youth Program

The Workforce Investment Act (WIA) Youth Program enrolls youth who are 21 years and younger, income eligible and face barriers to education or employment. Some of the services offered include: help obtaining a HS diploma or GED, paid work experience, support services that help meet education or employment goals, work readiness training and financial assistance with tuition and books. The WIA Youth Program provides mentoring in order to help youth overcome barriers that they face. The objective of the program is to provide education and training directly related to employment that leads to a degree or certificate. The WIA youth program serves students who reside in Pinal or Gila County. WIA Youth Program is federally funded by the Department of Labor through the Gila Pinal Workforce Investment Board. Applications and further information is available on our webpage at www.centralaz.edu/wia or by calling 520-494-6053.

Residence Life

The Signal Peak Campus offers an on-campus living and a learning environment with space for approximately 350 students. The Residence Life Staff provide programs that promote personal growth and development, cultural, diversity, and community responsibility. These programs work towards enhancing the student's overall college experience.

For more information about Residence Life, and to obtain a copy of the housing application, please visit the Residence Life website at: Home>Student Resources>Residence Life or contact the office directly at 520-494-5470 or via e-mail www.centralaz.edu/reslife. If you wish to live in on-campus housing, you must officially apply to be considered.





STUDENT ENGAGEMENT AND ACTIVITIES

Student Engagement and Activities provide students a variety of involvement opportunities. Co-curricular programs include leadership, clubs and organizations, and student activities.

Student Leadership Organization

Student Leadership at CAC is an important student organization that responds to student needs and issues. The Student Leadership Organization (SLO) develops events and activities to increase student involvement on campus and within the local communities.

Students may participate in SLO as a coordinator or volunteer.

There are many benefits to serving as a student leader:

- Scholarships
- Prescott Leadership Camp
- Leadership Training & National Conferences
- Community Involvement
- Host the Annual Student Awards Ceremony
- National recognition for leadership excellence

Student Activities

Student Leadership and Clubs/Organizations provide on-campus activities. Many activities include social, cultural, service, awareness and academic programs. Student Activities programs are FREE and open to all students, faculty, and staff. Students receive a weekly list of campus programs via The Vaquero Vibe.'

Student Clubs and Organizations

Student Clubs and Organizations (SCO) are organized student groups with a common interest and a shared goal. Clubs and Organizations provide students opportunities for social interaction, recreation, leadership training and enhancement of career-academic interests. Each group has a faculty or staff advisor to guide and support the student group. There are a variety of opportunities to be involved in leadership, social, service, religious, educational, ethnic, and cultural clubs and organizations. Not all clubs are available at each campus. For more information, check our webpage at www.centralaz.edu/activities.

Campus Leadership Opportunities

- Art Club
- Central Arizona Student Nurses Association (CASNA)
- CRU Club
- Phi Theta Kappa
- Creative Club
- Newman Club

- Phi Theta Kappa International Honor Society
- Business Clubs (Collegiate DECA and PBL)
- The Science Technology Engineering and Math (STEM)
- Superstition Mountain PRIDE: LGBTQ & Straight Alliance
- TRIO Peer Mentors
- Resident Student Leaders
- Student Leadership Members-at-Large





Degrees and Certificates



Welding instructor Brent Couch critiques a student's welding technique.



DEGREE AND CERTIFICATE INFORMATION

Central Arizona College (CAC) offers students one- and two-year programs to meet their diverse interests and goals, including a variety of disciplines in nearly 150 degrees and certificates. These may be completed over an extended period to accommodate nontraditional students. Students completing these degrees with a cumulative grade point average (CGPA) of 2.0 on a 4.0 grade scale typically matriculate to an Arizona public university with junior status and only need an additional 56-60 university credits to complete a bachelor's degree consisting of 120 credits.

Students undecided about their academic program should meet with an academic advisor to explore career and life goals. Selecting a program that fits talents and interests and planning a timeline to achieve academic goals based on course offerings leads to successful degree/certificate completion.

Transferable Degrees

All of CAC's transferable degrees conform to one of three degree structures and include at least 35 semester credits of general education studies and transfer directly to the three Arizona public universities: Arizona State University (ASU), Northern Arizona University (NAU) and the University of Arizona (UA). CAC's three transferable degree structures are:

- Associate in Arts (A.A.)
- Associate of Business (A. Bus.)
- Associate of Science (A.S.)

CAC transferable associate degrees require at least 60-64 semester credits and share five basic categories in addition to CAC core degree requirements. Specific degree requirements follow within each degree.

1. General Education

Each of CAC's transferable associate degrees include a block of at least 35 semester credits of lower-division general education requirements known as the Arizona General Education Curriculum (AGEC). This block provides clear and secure transfer pathways from community college to university studies. The three available tracks are the AGEC-Arts (AGEC-A), AGEC-Business (AGEC-B), and AGEC-Science (AGEC-S).

2. Subject Options

Based on your major, review the specific associate degree requirements in this catalog, consult an academic advisor, and review Transfer Guides at <http://aztransfer.com/college/>

3. Special Awareness Requirements

- Intensive Writing and Critical Inquiry
- Cultural Awareness-Ethnic/Race/Gender
- Global/International Awareness or Historical Awareness

4. Electives

Students may need to select additional transferable courses to meet the number of semester credits required for the associate degree as designated by the transfer pathway. Electives must transfer to a minimum of two of the three Arizona public universities as "elective or better".

5. Requirements for CAC Degrees

- Reading Competency
A grade of "C" or better in RDG094 or appropriate score on placement exam. Demonstrated proficiency is a requirement for all degrees awarded.
- Computer Competency
 - AGB 124 Microcomputers in Agriculture **or**
 - CIS 120 Survey of Computer Information Systems (or higher CIS course) **or**
 - Transferable Computer Competency course
- A minimum of 20 **earned** CAC credits (numbered 100 or above) to include the appropriate Arizona General Education Curriculum (AGEC)
- A grade of "C" or better in each course

NOTE: Consult information on specific degree and graduation requirements with the assistance of an academic advisor.

Additional Degrees

CAC offers two other degree options:

- Associate of Applied Science (A.A.S.)
- Associate of General Studies (A.G.S.)

These degrees prepare students to directly enter the workforce, pursue a Bachelor of Applied Science Degree, or to select another degree path to a four-year college or university. Students whose goal is a four-year bachelor's degree should earn an AGEC Certificate and select transferable courses. The AGEC-Art, AGEC-Business and AGEC-Science Certificates align with many programs of study. Select your target four-year college/university, then consult an academic advisor. See the Transfer Guides at: <http://aztransfer.com/college/>

The Associate of Applied Science degree requires at least 64 semester credits and includes three basic categories:

1. General Education

The A.A.S. degree requires 19-23 semester credits of lower-division general education coursework. Students electing to transfer to one of the three Arizona public universities should earn an AGEC certificate, which requires a minimum of 35 semester credits.

2. Core Requirements and Electives

Students must complete at least 41 semester credits to meet the number required for the degree. Based on your major, refer to the specific A.A.S. degree requirements in this catalog and consult an academic advisor.



3. *Requirements for CAC Degrees*

- Physical Education Activity (PAC) or Dance (DAN) Course
- Reading Competency
A grade of “C” or better in RDG094 or appropriate score on placement exam. Demonstrated proficiency is a requirement for all degrees awarded.
- Computer Competency
 - AGB 124 Microcomputers in Agriculture **or**
 - CIS 120 Survey of Computer Information Systems (or higher CIS course) **or**
 - Transferable Computer Competency course
- A minimum of 20 **earned** CAC credits, numbered 100 or above (to include the appropriate Arizona General Education Curriculum (AGEC), if applicable)
- Earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale

The Associate of General Studies degree is appropriate for students who do not plan to transfer, requires at least 64 semester credits and includes three basic categories:

1. *General Education*

The A.G.S. degree requires 29-30 semester credits of lower-division general education coursework. Students have the opportunity to transfer to one of the three Arizona public universities by completing requirements for both the AGS degree and an AGEC certificate. Upon completion of the A.G.S. Degree with an AGEC, students must complete both the A.G.S. Degree completion form and the AGEC Certificate Completion form.

2. *Electives*

Students must complete at least 30 semester credits to meet the number required for the degree. Based on your major, refer to the specific A.G.S. degree requirements in this catalog and consult an academic advisor.

3. *Requirements for CAC Degrees*

- Physical Education Activity (PAC) or Dance (DAN) Course
- Reading Competency
A grade of “C” or better in RDG094 or appropriate score on placement exam. Demonstrated proficiency is a requirement for all degrees awarded.
- Computer Competency
 - AGB 124 Microcomputers in Agriculture **or**
 - CIS 120 Survey of Computer Information Systems (or higher CIS course) **or**
 - Transferable Computer Competency course
- A minimum of 20 **earned** CAC credits, numbered 100 or above (to include the appropriate Arizona General Education Curriculum (AGEC), if applicable)
- Earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

ASSOCIATE OF ARTS (A.A.) DEGREE (60-64 Credits)

District-Wide

The Associate of Arts (A.A.) Degree is appropriate for students who plan to transfer to the university to earn a baccalaureate degree. Major areas of study include: Administration of Justice, Advertising, Agri-Business, Agriculture, American Studies, Anthropology, Art, Art History, Broadcasting, Communication, Creative Writing, Dramatic Theory, Early Childhood Education, Economics, English, Exercise Science, Fine Arts, Geography, History, Hotel/Restaurant Management, Interdisciplinary Arts/Performance, Interdisciplinary Studies, Journalism, Languages, Liberal Arts, Mathematics, Media Arts, Music, Philosophy, Physical Education, Political Science, Psychology, Public Programs, Public Relations, Recreation and Tourism, Religious Studies, Secondary Education, Social and Behavioral Sciences, Social Work, Sociology and Theatre.

For a list of Common Courses associated with specific programs of study, go to the Common Course Matrix Archives and select the current year or the year the course was completed:

<http://steeringcommittee.aztransfer.com/resources/ccm.html>

AGEC courses are transferable to all three Arizona public universities provided students earn a grade of “C” or better. Contact an academic advisor for assistance.





AGEC-A Certificate (35-36 Credits)

The Associate of Arts Degree requires the AGEC-Arts (AGEC-A) general education block of 35-36 credits. The AGEC-A satisfies requirements in many liberal arts programs and other programs that articulate with the A.A. Degree. The AGEC-A requires a minimum of College Mathematics MAT141 plus 32 credits from specific AGEC categories. Refer to the AGEC Course List in this catalog or the AGEC-Web: <http://aztransfer.com/generaleducation/>

General Education (35-36)

For the five categories below, select the recommended course(s) or an AGEC course from the equivalent category.

Written Communications (6 Credits)

- ENG 101 English Composition III (3)  
ENG 102 English Composition IV (3)  

Oral Communications (3 Credits)

Select an AGEC Course.

For the following two categories, select a total of 15 credits.

Arts and Humanities (6-9 Credits)

Select a minimum of one Art (3) and one Humanities (3) AGEC course.



Social and Behavioral Sciences (6-9 Credits)

Select AGECE courses from two different disciplines.

Physical and Biological Sciences (8 Credits)

Select AGECE courses with a laboratory component.

Mathematics (3-4 Credits)

MAT 141 College Mathematics, Standard (4) or higher

Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor, and review Transfer Guides at: <http://aztransfer.com/college/>

Special Awareness Requirements (0-9)

Select AGECE courses to fulfill these requirements.

1. At least three semester credits of coursework in *Intensive Writing and Critical Inquiry*
2. At least three semester credits of coursework in *Cultural Awareness (Ethnic/Race/Gender)*
3. At least three semester credits of coursework in *Global/International Awareness or Historical Awareness*

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences or Transfer Electives, may also be used to satisfy the three (3) Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Students may select courses which fulfill multiple categories. For example, a course may fulfill the AGECE Arts, Intensive Writing and a core requirement.

Select approved elective courses which transfer as “elective or better” to at least two of the three Arizona public universities to complete the required A.A. Degree credit requirement. Consult the CEG.

Requirements for A.A. Degree (3)

Reading Competency: RDG 094 College Reading

Computer Competency (3):

- CIS120 Survey of Computer Information Systems (3) or
- AGB124 Microcomputers in Agriculture (3) or
- Transferable Computer Competency course (Consult the *Course Equivalency Guide* to determine transferability to the three state public universities.)

Other A.A. Degree Requirements

Some A.A. Degree majors require up to 16 credits of a Second Language to demonstrate proficiency. Many four-year degree programs require either a second semester or fourth semester level of a second language. CAC strongly encourages students to complete this requirement at CAC prior to transfer.

Check your university catalog, Transfer Guides at <http://aztransfer.com/college/> or meet with an academic

advisor. Students may demonstrate proficiency by completion of coursework and/or a proficiency test.

Students who are undecided about their major are encouraged to complete a fourth semester of a second language. CAC offers Spanish, French, Sign Language and other Foreign Languages and Literatures. Contact an academic advisor for assistance.

Students must earn a grade of “C” or better in each A.A. Degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGECE-A requirements.

The Associate of Arts Degree requires 60-64 semester credits.



ASSOCIATE OF BUSINESS (A.BUS.) DEGREE

(60-64 Credits)

Aravaipa, Maricopa, Signal Peak, Superstition Mountain and San Tan Campuses

The Associate of Business (A. Bus.) Degree suits students who plan to transfer to the university to earn a baccalaureate degree in Business-related areas, such as Accounting, Business Administration, Computer Information Systems, Economics, Finance, Human Relations, Marketing and Public Administration.

For a list of Common Courses associated with specific programs of study, go to the Common Course Matrix Archives and select the current year or the year the course was completed:

<http://steeringcommittee.aztransfer.com/resources/ccm.html>

AGECE courses are transferable to all three Arizona public universities provided students earn a grade of “C” or better.

Contact an academic advisor for assistance.







AGEC-B Certificate (35-36 Credits)

The Associate of Business Degree requires the AGECE-B Business general education block of 35-36 credits. The AGECE-B satisfies requirements in many business programs and other programs that articulate with the A. Bus. Degree. The AGECE-B requires a minimum of Brief Calculus MAT211 plus 32 credits from specific AGECE categories. Select AGECE courses only. Refer to the AGECE Course List in this catalog or the AGECE-Web: <http://aztransfer.com/generaleducation/>

General Education (35-36)

For the five categories directly below, choose from the recommended courses or select AGECE courses from the equivalent category.

Written Communications (6 Credits)

- ENG 101 English Composition III (3)  
- ENG 102 English Composition IV (3)  

Oral Communications (3 Credits)

Select an AGECE course.

For the following two categories, select a total of 15 credits.

Arts and Humanities (6-9 Credits)

Select a minimum of one Art (3) and one Humanities (3) AGECE course.

Social and Behavioral Sciences (6-9 Credits)

Select AGECE courses from two different disciplines.

Physical and Biological Sciences (8 Credits)

Select AGECE courses with a laboratory component.

Mathematics (3-4 Credits)

- MAT 211 Brief Calculus or higher (4)

Computer Competency (3 Credits)

- CIS 120 Survey of Computer Information Systems (3) 

Subject Options (0-3)

Based on your major, review the specific Associate of Business Degree requirements in the CAC Catalog, consult an academic advisor and review the Transfer Guides:

<http://aztransfer.com/college/>

Special Awareness Requirements (0-9)









Select AGECE courses to fulfill these requirements.

1. At least three semester credits of coursework in *Intensive Writing and Critical Inquiry*
2. At least three semester credits of coursework in *Cultural Awareness (Ethnic/Race/Gender)*
3. At least three semester credits of coursework in *Global/International Awareness or Historical Awareness*

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences or Transfer Electives, may also be used to satisfy the

three (3) Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.



Core Requirements (22-26 Credits)

- ACC 201 Financial Accounting (3) 
- ACC 202 Managerial Accounting (3) 
- BUS 201 Legal Environment of Business (3)
- BUS 208 Business Statistics (3) 
- ECN 201 Principles of Macroeconomics (3)   also fulfills Social/Behavioral Science requirement
- ECN 202 Principles of Microeconomics (3)   also fulfills Social/Behavioral Science requirement
- MAT 215 Math for Business Analysis (4) 

Electives (0-4)

Select approved elective courses which transfer as "elective or better" to at least two of the three Arizona public universities to complete the required A. Bus. Degree credit requirement. Consult the CEG. Students must complete a total of 60-64 credits to earn the Associate of Business Degree.


Recommended Business Electives:

- ACC 121 Income Tax Fundamentals (3)
- BUS 100 Introduction to Business (3)
- BUS 260 Applied Business Seminar (3)
- CIS 123 Introduction to Programming (3)
- MAT 151 College Algebra, Standard (4)  

Requirements for A. Bus. Degree (3)

Reading Competency: RDG 094 College Reading 

Computer Competency (3):

- CIS 120 Survey of Computer Information Systems (3) 
(fulfilled by AGECE-B requirement)

Other A. Bus. Degree Requirements

Some A. Bus. Degree majors require up to 16 credits of a Second Language to demonstrate proficiency. Many four-year degree programs require either a second semester or fourth semester level of a second language. CAC strongly encourages students to complete this requirement at CAC prior to transfer.

Check your university catalog, Transfer Guides at <http://aztransfer.com/college/> or meet with an academic advisor. Students may demonstrate proficiency by completion of coursework and/or a proficiency test.

Students undecided about their major are encouraged to complete a fourth semester of a second language. CAC offers Spanish, French, Sign Language and other Foreign Languages and Literatures. Contact an academic advisor for assistance.

Students must earn a grade of "C" or better in each A. Bus. Degree required course.



Students must earn a minimum of 20 credits from CAC which includes the AGECE-B requirements.

The Associate of Business Degree requires 60-64 credits.



ASSOCIATE OF SCIENCE (A.S.) DEGREE

(60-64 Credits)

Signal Peak & Superstition Mountain Campuses

The Associate of Science (A.S.) Degree suits students who plan to transfer to the university to earn a baccalaureate degree in Physical and Biological Science areas such as Agricultural Science, Allied Health, Animal Science, Astronomy, Athletic Training, Biology, Botany, Chemistry, Computer Science, Engineering, Microbiology, Physics, Plant and Soil Science, and Veterinary Science.

For a list of Common Courses associated with specific programs of study, go to the Common Course Matrix Archives and select the year you completed the course(s):
<http://steeringcommittee.aztransfer.com/resources/ccm.html>

AGEC courses are transferable to all three Arizona public universities provided students earn a grade of "C" or better. Contact an academic advisor for assistance.

AGEC-S Certificate (35-37 Credits)

The Associate of Science Degree requires the AGECE-Sciences general education block of 35-37 credits. The AGECE-S satisfies programs with rigorous mathematics and science requirements. The AGECE-S requires a minimum of MAT221 Analytical Geometry and Calculus I (4) or higher Math course, transferable to ASU, NAU and UofA, plus 32 credits from specific AGECE categories. Refer to the AGECE Course List in this catalog or the AGECE-Web:

<http://aztransfer.com/generaleducation/>

General Education (35-37)

Written Communications (6 Credits)

ENG 101 English Composition III (3)

ENG 102 English Composition IV (3)

For the two categories directly below, choose courses from the equivalent category on the AGECE course list in the CAC catalog.

Arts and Humanities (6 Credits)

Select one Art (3) and one Humanities (3) AGECE course.

Social and Behavioral Sciences (6 Credits)

Select AGECE courses from two different disciplines.

Physical and Biological Sciences (8 Credits)

BIO 181 General Biology I (4) **AND**

BIO 182 General Biology II (4)

OR

CHM 151 General Chemistry I (4) **AND**

CHM 152 General Chemistry II (4)

OR

PHY 121 University Physics I: Mechanics (4) **AND**

PHY 122 University Physics II: Electricity and Magnetism (4)

Mathematics (3-4 Credits)

MAT 221 Analytical Geometry and Calculus I (4) or higher

Subject Options (6-8)

Based on your major, consult the Transfer Guides:

<http://aztransfer.com/college/>

Students may select mathematics or science courses. Select Mathematics courses above the first course in the calculus sequence and/or Science courses from: Agriculture, Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Nutrition, Physical Geography, Physics or Zoology.

Special Awareness Requirements (0-9)

Select AGECE courses to fulfill these requirements.

1. At least three semester credits of coursework in *Intensive Writing and Critical Inquiry*
2. At least three semester credits of coursework in *Cultural Awareness (Ethnic/Race/Gender)*
3. At least three semester credits of coursework in *Global/International Awareness or Historical Awareness*

Note: Courses used in other areas, such as Communications, Arts and Humanities, Social and Behavioral Sciences or Transfer Electives may also be used to satisfy one of the three (3) Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.




Electives

Select approved elective courses which transfer as “elective or better” to at least two of the three Arizona public universities to complete the required A.S. Degree credit requirement. Consult the CEG. Students must complete a total of 60-64 credits to earn the Associate of Science Degree.

Requirements for A. S. Degree (3)

Reading Competency: RDG094 College Reading

Computer Competency (3):

- AGB 124 Microcomputers in Agriculture (3) or
 - CIS 120 Survey of Computer Information Systems (3) 
- or
- Transferable Computer Competency course (Consult the Course Equivalency Guide to determine transferability to the three state public universities.)

Other A. S. Degree Requirements

Some A.S. Degree majors require up to 16 credits of a Second Language to demonstrate proficiency. Many four-year degree programs require either a second semester or fourth semester level of a second language. CAC strongly encourages students to complete this requirement at CAC prior to transfer.

Check your university catalog, Transfer Guides at <http://aztransfer.com/college/> or meet with an academic advisor. Students may demonstrate proficiency by completion of coursework and/or a proficiency test.

Students who are undecided about their major are encouraged to complete a fourth semester of a second language. CAC offers Spanish, French, Sign Language and other Foreign Languages and Literatures. Contact an academic advisor for assistance.

Students must earn a grade of “C” or better in each A.S. Degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGECS requirements.

Associate of Science Degree requires 60-64 credits.



ASSOCIATE OF APPLIED (A.A.S.) SCIENCE DEGREE

(64 Credits)

Signal Peak Campus



The Associate of Applied Science (A.A.S.) Degree is appropriate for students who plan to directly enter the workforce of their chosen degree. Some state universities permit students with an A.A.S. degree to transfer most or all of their credits to a university. Students may also choose to pursue a Bachelor of Applied Science (B.A.S.) Degree. Consult your CAC academic advisor and the Transfer Guides: <http://aztransfer.com/college/>

For a list of Arizona Common Courses associated with specific programs of study, go to the Common Course Matrix Archives and select the current year or the year the course was completed; See:

<http://steeringcommittee.aztransfer.com/resources/ccm.html>

General Education (19-23 Credits)

Written Communications (3 Credits)

ENG 101 English Composition III (3)  

OR

ENG 121 Applied Technical Writing (3)

Oral Communications (3 Credits)

Select a COM course, or an AGECS course if you plan to transfer to a bachelor's degree program.

For the following two categories: 1) Arts and Humanities and 2) Social and Behavioral Sciences, the required courses must represent two different departmental areas from each category. For example, students may not take a History course to fulfill their Arts and Humanities requirement if they are using



another History course to complete their Social and Behavioral Sciences requirement.

Arts and Humanities (3 Credits)

Select courses numbered 100 or above in the following areas: Art, Humanities, Literature, Music, Philosophy and Theatre. Students may also choose any course from the Arts or Humanities AGECE lists, especially those areas which suit major or minor areas of study.

Social and Behavioral Sciences (3 Credits)

Select courses numbered 100 or above in the following areas: Anthropology, Economics, Geography, History, Political Science, Psychology and Sociology. Students may also choose any course from the Social and Behavioral Science AGECE list, especially those areas which suit major or minor areas of study.

Physical and Biological Sciences (4 Credits)

Select courses numbered 100 or above from biological or physical science disciplines, or any course from the Biological and Physical Lab Science AGECE list, especially those areas which suit major or minor areas of study.

Mathematics (3-4 Credits)

Select a college-level Mathematics course
BUS 101 Business Mathematics (3) or
MAT 118 Essential Mathematics (4) or higher

Core Requirements and Electives (41 or More Credits)

The number of credits required depends on the chosen major. See the specific A.A.S. Degree programs.

Requirements for A.A.S. Degree (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

- AGB124 Microcomputers in Agriculture (3)
- CIS110 Fundamentals of Computer Literacy (3) (or higher)
- Transferable Computer Competency course (Consult the CEG.)

Students intending to transfer to a B.A.S. Degree or other bachelor's degree are advised to select transferable courses.

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn a minimum of 20 credits from CAC.

The A.A.S. Degree requires a minimum of 64 credits.

ASSOCIATE OF GENERAL STUDIES (A.G.S.) DEGREE

(64 Credits)

Signal Peak Campus

Superstition Mountain Campus

The Associate of General Studies (A.G.S.) Degree is appropriate for students who desire flexibility to select courses to build a degree and who do not plan to transfer. However, choosing the A.G.S. degree and fulfilling the Arizona General Education Curriculum (AGECE) requirements provides the opportunity for students to attend an Arizona public university and to transfer the 35 credit AGECE block.

All students should consult an academic advisor and the Transfer Guides for Arizona State University, Northern Arizona University, and the University of Arizona in the major field for the bachelor degree. For more information, go to: <http://aztransfer.com/college/>

For a list of Common Courses associated with specific programs of study, go to the Common Course Matrix Archives and select the current year or the year you completed the course(s):

<http://steeringcommittee.aztransfer.com/resources/ccm.html>

Upon completion of the A.G.S. Degree with an AGECE, students must complete both the A.G.S. Degree completion form and the AGECE Certificate Completion form.

General Education (29-30 Credits)

Written Communications (3 Credits)

ENG 101 English Composition III (3)  

Note: The AGECE Certificate requires 6 credits: ENG 101 English Composition III (3) and ENG 102 English Composition IV (3).

Oral Communications (3 Credits)

Select a COM course applicable to your designated degree.

Arts and Humanities (6 Credits)

Select courses numbered 100 or above in the following areas: Art, Humanities, Literature, Music, Philosophy and Theatre. Students may also choose any course from the Arts or Humanities AGECE lists, especially those areas which suit major or minor areas of study. One Art (3) and one Humanities (3) course is required.

Social and Behavioral Sciences (6 Credits)

Select courses numbered 100 or above in the following areas: Anthropology, Economics, Geography, History, Political Science, Psychology and Sociology. Students may also choose any course from the Social and Behavioral Science AGECE list, especially those areas which suit major



or minor areas of study. Select courses from two different disciplines.

Physical and Biological Sciences (8 Credits)

Select courses numbered 100 or above from biological or physical science, or any course from the Physical and Biological Sciences AGEC list, especially those areas which suit major or minor areas of study.

Mathematics (3-4 Credits)

BUS 101 Business Mathematics (3) or
MAT 118 Essential Mathematics (4) or higher

Electives (30-31) Credits

Select college-level courses numbered 100 or above to meet 64 credit minimum requirement. Students electing to earn the AGEC-A to prepare for transfer to a four-year institution are strongly encouraged to complete additional coursework in the following areas: English and Mathematics.

Requirements for A.G.S. Degree (4)

PAC or DAN Course (1)

Reading Competency: RDG 094 College Reading 

Computer Competency (3):

- AGB 124 Microcomputers in Agriculture (3)
- CIS 110 Fundamentals of Computer Literacy (3) or higher
- Transferable Computer Competency course (Consult the CEG.)

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn a minimum of 20 credits from CAC.

The A.G.S. Degree requires 64 credits.



ARIZONA GENERAL EDUCATION CURRICULUM (AGEC) 2015-2016

Completion of the AGEC or AGEC Certificate fulfills lower division General Education Requirements and will be fully applicable to the baccalaureate degree upon transfer to an Arizona public university. Three tracks are available: AGEC-Arts, AGEC-Business and AGEC-Science. All require completion of 35-37 transferable credits.

Consult an academic advisor to select courses to meet the AGEC requirements that may also fulfill program requirements in your chosen university major.

Multiple-Use Course Guideline:

Students may use a course to fulfill an AGEC Category, such as the Social and Behavioral Sciences along with an AGEC Special Awareness Requirement Area, such as Intensive Writing. In addition, students may use the same course to fulfill certificate/degree core and/or elective requirements as well as CAC Requirements, i.e. Computer Competency course. Students must earn the minimum credits required for each credential. For example, an A.A. Degree with an AGEC-A requires a minimum of 60-64 credits, including a minimum of 20 credits earned from CAC.

AGEC (35-37 Credits)

General Education

When fulfilling the AGEC requirements, follow the instructions carefully. For example, students selecting the AGEC-A must earn a minimum of one course in the Art Category and one course in the Humanities Category, i.e. ART 207 or ART208. Thus, the same Art course may not fulfill both the AGEC Arts and AGEC Humanities Categories (6-9 credit requirements).

Written Communications (6 Credits)

ENG101 English Composition III (3) 

ENG102 English Composition IV (3) 

Oral Communications (3 Credits)

COM100 Fundamentals of Human Communication (3) 

COM101 Interpersonal Communication (3)

COM202 Small Group Communication (3)

COM206 Public Speaking (3)

COM259 Professional Communication (3)

COM263 Intercultural Communication (3)

Students are encouraged to choose coursework from more than one discipline for both Arts and Humanities and Social and Behavioral Science categories.



Arts and Humanities (6-9 Credits)

Arts (Minimum of 3 credits)

ART100	Art Appreciation (3)
ART101	Two-Dimensional Design (3)
ART102	Three-Dimensional Design (3)
ART103	Beginning Jewelry and Metalwork (3)
ART105	Ceramics I (3)
ART207	Art History I (3)
ART208	Art History II (3)
EIT100	History of Rock n' Roll (3)
HMC250	Humanities in the Western World I (3)
HMC251	Humanities in the Western World II (3)
HMC252	Humanities in the Western World III (3)
LIT202	American Literature II (3)
MHL100	Music Appreciation (3)
MHL207	Survey of Jazz/Popular Music (3)
THE100	Theater Appreciation (3)
THE115	Introduction to Cinema (3)
THE116	Contemporary Cinema (3)

Humanities (Minimum of 3 credits)

AJS123	Ethics and the Administration of Justice (3)
ART207	Art History I (3)
ART208	Art History II (3)
EIT100	History of Rock n' Roll (3)
ENG205	Introduction to the Study of Language (3)
HIS101	U.S. History I (3)
HIS102	U.S. History II (3)
HIS103	History of Western Civilization I (3)
HIS104	History of Western Civilization II (3)
HIS108	Eastern Civilization—Beginnings to 1850 (3)
HIS201	Women in U.S. History (3)
HIS208	Eastern Civilization—1850 to Modern Times (3)
HMC250	Humanities in the Western World I (3)
HMC251	Humanities in the Western World II (3)
HMC252	Humanities in the Western World III (3)
HNR204	Honors Colloquium I (3)
HNR205	Honors Colloquium II (3)
HNR255	Leadership Development (3)
LIT101	Introduction to Literature (3)
LIT201	American Literature I (3)
LIT202	American Literature II (3)
LIT203	English Literature I (3)
LIT204	English Literature II (3)
LIT206	World Literature (3)
LIT232	African American Literature (3)
LIT233	American Ethnic Literature (3)
LIT254A	Literature and Film (3)
LIT256	Science Fiction Literature and Film (3)
LIT291	Children's Literature for Educators (3)
PHI101	Introduction to Philosophy (3)
PHI105	Introduction to Ethics (3)
PHI112	World Religions (3)

Social and Behavioral Sciences (6-9 Credits)

Select courses from at least two disciplines.

AGS122	Natural Resources and Conservation (3)
AJS101	Introduction to Administration of Justice (3)
AJS123	Ethics and the Administration of Justice (3)
AJS225	Criminology (3)
AJS270	Community Relations (3)
ARH200	Principles of Archaeology (3)
ASB101	Physical Anthropology and Archaeology: Bones, Stones, and Human Evolution (4)
ASB102	Cultural Anthropology (3)
ASB201	Indians of the Southwest (3)
BUS123	Business Relations (3)
BUS190	Principles of Management and Leadership (3)
COM101	Interpersonal Communication (3)
COM263	Intercultural Communication (3)
ECE276	Child Development (3)
ECN200	Contemporary Economic Issues (3)
ECN201	Principles of Macroeconomics (3)
ECN202	Principles of Microeconomics (3)
EDU221	Introduction to Education (3)
EDU222	Introduction to Special Education (3)
EDU230	Cultural Values in Education (3)
GEO101	Introduction to Cultural and Historical Geography (3)
HIS101	U.S. History I (3)
HIS102	U.S. History II (3)
HIS105	Arizona History (3)
HIS106	Mexican-American History (3)
HIS107	African-American History I (3)
MSC101	Media and Society (3)
PEH101	Personal Health (3)
PHI105	Introduction to Ethics (3)
POS101	American Politics (3)
POS104	Contemporary Issues in World Politics (3)
POS220	U.S. and Arizona Constitutions (3)
PSY101	Introduction to Psychology (3)
PSY200	Social Psychology (3)
PSY203	Developmental Psychology (3)
PSY205	Personality and Social Adjustment (3)
PSY277	Human Sexuality (3) <i>Cross Listed with SOC277</i>
REC101	Recreation, Leisure, and the Quality of Life (3)
SOC101	Introduction to Sociology (3)
SOC202	Contemporary Social Problems (3)
SOC200	Racial and Ethnic Minorities (3)
SOC203	Marriage and Family (3)
SOC212	Gender in Society (3)
SOC250	Family Violence (3)
SOC277	Human Sexuality (3) <i>Cross Listed with PSY27</i>



Physical and Biological Sciences (8 Credits)

Associate of Science Degrees have unique Physical or Life Science requirements. Students pursuing an Associate of Science Degree should consult their academic advisor and follow the Arizona Transfer Guide for their major. Refer to the AGEC-S requirements in this catalog.

AGS101	World of Plants (4)
AGS104	Agricultural Environmental Science (4)
AGS106	Entomology (4)
AGS221	Soil Science (4)
AGS240	Plant Biology (4)
ASB101	Physical Anthropology and Archaeology: Bones, Stones, and Human Evolution (4)
AST101	Survey of Astronomy (4)
BIO100	Biology Concepts (4)
BIO109	Natural History of the Southwest (4)
BIO156	Human Biology for Allied Health (4)
BIO160	Introduction to Human Anatomy/Physiology (4)
BIO181	General Biology I (4)
BIO182	General Biology II (4)
BIO201	Human Anatomy and Physiology I (4)
BIO202	Human Anatomy and Physiology II (4)
BIO205	Microbiology (4)
CHM130	Fundamental Chemistry (4)
CHM151	General Chemistry I (4)
CHM152	General Chemistry II (4)
CHM235	General Organic Chemistry I (4)
CHM236	General Organic Chemistry II (4)
ENV101	Environmental Science (4)
GLG101	Physical Geology (4)
GLG102	Historical Geology (4)
GLG110	Geological Hazards and Disasters (4)
NTR141	Nutrition and Wellness (4)
PHY100	Physical Universe (4)
PHY111	College Physics I (4)
PHY112	College Physics II (4)
PHY121	University Physics I: Mechanics (4)
PHY122	University Physics II: Electricity and Magnetism (4)

Mathematics (3-4 Credits)

Associate of Business and Associate of Science Degrees have unique Mathematics requirements dependent on the major. Contact an academic advisor and follow the Transfer Guide for your major to determine the required Mathematics sequence. Refer to the AGEC-B and the AGEC-S requirements.

MAT141	College Mathematics, Standard (4)
MAT151	College Algebra, Standard (4)
MAT162	Applied Statistics (3)
MAT182	Trigonometry with Algebra Review (4)
MAT187	Pre-Calculus (5)
MAT201	Math for Elementary Teachers I (3)
MAT202	Math for Elementary Teachers II (3)
MAT211	Brief Calculus, Standard (4)

MAT212	Brief Calculus, Accelerated (3)
MAT215	Math for Business Analysis (4)
MAT221	Analytical Geometry and Calculus I (4)
MAT231	Analytical Geometry and Calculus II (4)
MAT241	Analytical Geometry and Calculus III (4)
MAT262	Ordinary Differential Equations (3)
MAT275	Modern Differential Equations (4)

Subject Options (Varies 0-8)

See specific AGEC requirements.

Special Awareness Requirements (0-9 Credits)

Courses used in general education areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives may also be used to satisfy the three (3) Special Requirements categories. A course may not be used to satisfy more than one Special Requirements category.

Intensive Writing/Critical Inquiry

AGS122	Natural Resources and Conservation (3)
AJS225	Criminology (3)
ENG203	Advanced Composition (3)
HIS208	Eastern Civilization – 1850 to Modern Times (3)
HNR204	Honors Colloquium I (3) AND
HNR205	Honors Colloquium II (3)
<i>(Note: Must complete HNR204 and HNR205)</i>	
LIT201	American Literature I (3)
LIT202	American Literature II (3)
LIT203	English Literature I (3)
LIT204	English Literature II (3)
LIT232	African American Literature (3)
LIT233	American Ethnic Literature (3)
LIT254A	Literature and Film (3)
LIT256	Science Fiction Literature and Film (3)
LIT291	Children's Literature for Educators (3)
PHI105	Introduction to Ethics (3)
PSY203	Developmental Psychology (3)
SOC200	Racial and Ethnic Minorities (3)

Cultural Awareness (Ethnic/Race/Gender)

ART207	Art History I (3)
ART208	Art History II (3)
ASB102	Cultural Anthropology (3)
ASB201	Indians of the Southwest (3)
COM263	Intercultural Communication (3)
EDU230	Cultural Values in Education (3)
ENG205	Introduction to the Study of Language (3)
GEO101	Introduction to Cultural /Historical Geography (3)
HIS105	Arizona History (3)
HIS106	Mexican-American History (3)
HIS107	African-American History I (3)
HIS108	Eastern Civilization–Beginning to 1850 (3)
HIS201	Women in U.S. History (3)
HMC250	Humanities in the Western World I (3)
HMC251	Humanities in the Western World II (3)
HMC252	Humanities in the Western World III (3)



LIT232	African American Literature (3)
LIT233	American Ethnic Literature (3)
LIT291	Children's Literature for Educators (3)
MHL207	Survey of Jazz/Popular Music (3)
PSY277	Human Sexuality (3) <i>Cross Listed with SOC277</i>
SLG202	American Sign Language IV (4)
SOC200	Racial and Ethnic Minorities (3)
SOC212	Gender in Society (3)
SOC277	Human Sexuality (3) <i>Cross Listed with PSY277</i>

Global/International and Historical Awareness (3 Credits)

Global/International Awareness

AGS122	Natural Resources and Conservation (3)
ART207	Art History I (3)
ART208	Art History II (3)
ASB102	Cultural Anthropology (3)
FRE201	Intermediate French I (4)
FRE202	Intermediate French II (4)
HIS103	History of Western Civilization I (3)
HIS104	History of Western Civilization II (3)
HIS107	African-American History I (3)
HIS108	Eastern Civilization—Beginning to 1850 (3)
HIS208	Eastern Civilization—1850 to Modern Times (3)
LIT206	World Literature (3)
PHI112	World Religions (3)
POS104	Contemporary Issues in World Politics (3)
SPA201	Intermediate Spanish I(4)
SPA202	Intermediate Spanish II (4)
THE100	Theater Appreciation (3)

Historical Awareness

ART207	Art History I (3)
ART208	Art History II (3)
ASB201	Indians of the Southwest (3)
GEO101	Introduction to Cultural/ Historical Geography (3)
HIS101	U.S. History I (3)
HIS102	U.S. History II (3)
HIS103	History of Western Civilization I (3)
HIS104	History of Western Civilization II (3)
HIS105	Arizona History (3)
HIS106	Mexican-American History (3)
HIS201	Women in U.S. History (3)
HMC250	Humanities in the Western World I (3)
HMC251	Humanities in the Western World II (3)
HMC252	Humanities in the Western World III (3)
MHL100	Music Appreciation (3)
MHL207	Survey of Jazz/Popular Music (3)

See AGEC-Web for current information:

<http://aztransfer.com/generaleducation/>



DEGREES AND CERTIFICATES

AGEC Course Designations **2015-2016 A** † See the Code Legend at the end of this grid.

See AGECE-Web for current information:

<http://aztransfer.com/generaleducation/>

Course #	Cr	Course Title	Core Areas					Awareness Areas			
			CM	MA	AH	SB	PBS	IW	CU	GI	HI
AGS101	4	World of Plants					BS				
AGS104	4	Agricultural Environmental Science					BS				
AGS106	4	Entomology					BS				
AGS122	3	Natural Resources and Conservation				SB		IW		GI	
AGS221	4	Soil Science					BS				
AGS240	4	Plant Biology					BS				
AJS101	3	Introduction to Administration of Justice				SB					
AJS123	3	Ethics and the Administration of Justice			HU	SB					
AJS225	3	Criminology				SB		IW			
AJS270	3	Community Relations				SB					
ARH200	3	Principles of Archaeology				SB					
ART100	3	Art Appreciation			AR						
ART101	3	Two-Dimensional Design			AR						
ART102	3	Three-Dimensional Design			AR						
ART103	3	Beginning Jewelry and Metalwork			AR						
ART105	3	Ceramics I			AR						
ART207	3	Art History I			AH				CU	GI	HI
ART208	3	Art History II			AH				CU	GI	HI
ASB101	4	Physical Anthropology				SB	BS				
ASB102	3	Cultural Anthropology				SB			CU	GI	
ASB201	3	Indians of the Southwest				SB			CU		HI
AST101	4	Survey of Astronomy					PS				
BIO100	4	Biology Concepts					BS				
BIO109	4	Natural History of the Southwest					BS				
BIO156	4	Human Biology for Allied Health					BS				
BIO160	4	Introduction to Human Anatomy- Physiology					BS				
BIO181	4	General Biology I					BS				
BIO182	4	General Biology II					BS				
BIO201	4	Human Anatomy and Physiology I					BS				
BIO202	4	Human Anatomy and Physiology II					BS				
BIO205	4	Microbiology					BS				
BUS123	3	Business Relations				SB					
BUS190	3	Principles of Management and Leadership				SB					
CHM130	4	Fundamental Chemistry					PS				
CHM151	4	General Chemistry I					PS				
CHM152	4	General Chemistry II					PS				

 = SUN Course


AGEC Course Designations 2015-2016 B † See the Code Legend at the end of this grid.

See AGECE-Web for current information:

<http://aztransfer.com/generaleducation/>

			Core Areas					Awareness Areas			
Course #	⚡	Course Title	CM	MA	AH	SB	PBS	IW	CU	GI	HI
CHM235	🔥	4 General Organic Chemistry I					PS				
CHM236	🔥	4 General Organic Chemistry II					PS				
COM100	🔥	3 Fundamentals of Human Communication	OR								
COM101		3 Interpersonal Communication	OR			SB					
COM202		3 Small Group Communication	OR								
COM206		3 Public Speaking	OR								
COM259		3 Professional Communication	OR								
COM263		3 Intercultural Communication	OR			SB			CU		
ECE276		3 Child Development				SB					
ECN200		3 Contemporary Economic Issues				SB					
ECN201	🔥	3 Principles of Macroeconomics				SB					
ECN202	🔥	3 Principles of Microeconomics				SB					
EDU221		3 Introduction to Education				SB					
EDU222		3 Introduction to Special Education				SB					
EDU230		3 Cultural Values in Education				SB			CU		
EIT100		3 History of Rock n' Roll			AH						
ENG101	🔥	3 English Composition III	WR								
ENG102	🔥	3 English Composition IV	WR								
ENG203		3 Advanced Composition						IW			
ENG205		3 Intro to the Study of Language			HU				CU		
ENV101		4 Environmental Science					PS				
FRE201	🔥	4 Intermediate French I								GI	
FRE202	🔥	4 Intermediate French II								GI	
GEO101		3 Intro to Cultural and Historical Geography				SB			CU		HI
GLG101	🔥	4 Physical Geology					PS				
GLG102		4 Historical Geology					PS				
GLG110		4 Geological Hazards and Disasters					PS				
HIS101		3 U.S. History I			HU	SB					HI
HIS102		3 U.S. History II			HU	SB					HI
HIS103		3 History of Western Civilization I			HU					GI	HI
HIS104		3 History of Western Civilization II			HU					GI	HI
HIS105		3 Arizona History				SB			CU		HI
HIS106		3 Mexican-American History				SB			CU		HI
HIS107		3 African-American History				SB			CU	GI	
HIS108		3 Eastern Civilization-Beginnings to 1850			HU				CU	GI	
HIS201		3 Women in United States History			HU				CU		HI
HIS208		3 Eastern Civilization-1850 to Modern Times (3)			HU			IW		GI	



DEGREES AND CERTIFICATES

AGEC Course Designations **2015-2016 C** † See the Code Legend at end of this grid.

See AGECE-Web for current information:

<http://aztransfer.com/generaleducation/>

			Core Areas					Awareness Areas			
Course #	§	Course Title	CM	MA	AH	SB	PBS	IW	CU	GI	HI
HMC250	3	Humanities in the Western World I			AH				CU		HI
HMC251	3	Humanities in the Western World II			AH				CU		HI
HMC252	3	Humanities in the Western World III			AH				CU		HI
HNR204	3	Honors Colloquium I			HU						
HNR205	3	Honors Colloquium II			HU						
HNR204+ HNR205	6	Honors Colloquium I and II						IW			
HNR255	3	Leadership Development			HU						
LIT101	3	Introduction to Literature			HU				CU		
LIT201	3	American Literature I			HU			IW	CU		
LIT202	3	American Literature II			AH			IW	CU		
LIT203	3	English Literature I			HU			IW			
LIT204	3	English Literature II			HU			IW			
LIT206	3	World Literature			HU				CU	GI	
LIT232	3	African American Literature			HU			IW	CU		
LIT233	3	American Ethnic Literature			HU			IW	CU		
LIT254A	3	Literature and Film			HU			IW			
LIT256	3	Science Fiction Literature and Film			HU			IW			
LIT291	3	Children's Literature for Educators			HU			IW	CU		
MAT141	4	College Mathematics, Standard		MA							
MAT151 	4	College Algebra, Standard		MA							
MAT162	3	Applied Statistics		MA							
MAT182	4	Trigonometry with Algebra Review		MA							
MAT187 	5	Pre-Calculus		MA							
MAT201	3	Math for Elementary Teachers I		MA							
MAT202	3	Math for Elementary Teachers II		MA							
MAT211	4	Brief Calculus, Standard		MA							
MAT212	3	Brief Calculus, Accelerated		MA							
MAT215	4	Math for Business Analysis		MA							
MAT221 	4	Analytical Geometry and Calculus I		MA							
MAT231 	4	Analytical Geometry and Calculus II		MA							
MAT241 	4	Analytical Geometry and Calculus III		MA							
MAT262 	3	Ordinary Differential Equations		MA							
MAT275	4	Modern Differential Equations		MA							
MHL100	3	Music Appreciation			AR						HI
MHL207	3	Survey of Jazz/Popular Music			AR				CU		HI
MSC101	3	Media and Society				SB					

 = SUN Course


AGEC Course Designations Grid 2015-2016 D † See Code Legend at the end of this grid.

See AGECE-Web for current information:

<http://aztransfer.com/generaleducation/>

			Core Areas					Awareness Areas			
Course #	ꠔ	Course Title	CM	MA	AH	SB	PBS	IW	CU	GI	HI
NTR141	3	Nutrition and Wellness					BS				
PEH101	3	Personal Health				SB					
PHI101	3	Introduction to Philosophy			HU						
PHI105	3	Introduction to Ethics			HU	SB		IW			
PHI112	3	World Religions			HU					GI	
PHY100	4	Physical Universe					PS				
PHY111	4	College Physics I					PS				
PHY112	4	College Physics II					PS				
PHY121	4	University Physics I: Mechanics					PS				
PHY122	4	University Physics II: Electricity & Magnetism					PS				
POS101	3	American Politics				SB					
POS104	3	Contemporary Issues in World Politics				SB				GI	
POS220	3	U.S. and Arizona Constitutions				SB					
PSY101	3	Introduction to Psychology				SB					
PSY200	3	Social Psychology				SB					
PSY203	3	Developmental Psychology				SB		IW			
PSY205	3	Personality and Social Adjustment				SB					
PSY277	3	Human Sexuality (Cross Listed with SOC277)				SB			CU		
REC101	3	Recreation, Leisure, and the Quality of Life				SB					
SLG202	4	American Sign Language IV							CU		
SOC101	3	Introduction to Sociology				SB					
SOC200	3	Racial and Ethnic Minorities				SB		IW	CU		
SOC202	3	Contemporary Social Problems				SB					
SOC203	3	Marriage and the Family				SB					
SOC212	3	Gender in Society				SB			CU		
SOC250	3	Family Violence				SB					
SOC277	3	Human Sexuality (Cross Listed with PSY277)				SB			CU		
SPA201	4	Intermediate Spanish I								GI	
SPA202	4	Intermediate Spanish II								GI	
THE100	3	Theatre Appreciation			AR					GI	
THE115	3	Introduction to Cinema			AR						
THE116	3	Contemporary Cinema			AR						

† **AH**=Arts/Humanities; **AR**=Arts; **BS**=Biological Sciences; **CL**=Cross Listed; **CM**=Communications; **CU**=Cultural Awareness (Ethnic/Race/Gender); **GI**=Global/International; **HI**=Historical; **HU**=Humanities; **IW**=Intensive Writing; **MA**=Mathematics; **OR**=Oral Communications; **PBS**=Physical/Biological Sciences; **PS**=Physical Sciences; **SB**=Social/Behavioral Sciences; =SUN Course; **WR**=Written Communications.

*HNR 204 + HNR 205 earned with grade of "C" or better fulfills **IW** requirement.



CERTIFICATES

Certificate programs prepare students for entry-level employment opportunities and some build toward a state of Arizona General Education Curriculum (AGEC) Certificate or a CAC A.A.S. or A.G.S. Degree. Full-time students can complete most certificate programs in one or two semesters.

In addition to offering advanced training or building foundations for future credentials, many certificates build toward an A.A.S. Degree which transfers to the state universities and other higher education institutions.

In Arizona, the public universities support the AAS to BAS Pathway where students may earn 75 credits at CAC and complete a 120 credit baccalaureate degree by earning the last 45 credits at the university/four-year college.

Certificates require the following:

- Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.
- Students must complete one-third of the certificate credits from CAC.

To view the Certificates and Degrees available at CAC, consult the Program of Study list in this catalog.



Arizona General Education Curriculum for the Arts (AGEC-A Certificate)

(35-36 Semester Credits)

District-Wide

The Arizona General Education Curriculum focused on the Arts (AGEC-A) is a 35 semester credit block that fulfills the lower division general education requirements of liberal arts majors (e.g., social science, fine arts, humanities). The AGECA requires a minimum of MAT141 or higher plus 32 credits. The AGECA block transfers to any Arizona public or tribal community college and to the three Arizona public

universities. Students who intend to transfer into liberal arts majors should select the AGECA.

General Education (35-36)

Subject Area Requirements

An approved AGECA, together with the number of courses and number of semester credits, must contain the following Subject Areas. Select only AGECA courses.

Written Communications (6 credits)

ENG 101 English Composition III (3) ENG 1101

ENG 102 English Composition IV (3) ENG 1102

Oral Communications (3 credits)

Select an AGECA course.

For the following two categories, select a total of 15 credits.

Arts and Humanities (6-9 credits)

Select a minimum of one Art (3) and one Humanities (3) AGECA course.

Social and Behavioral Sciences (6-9)

Select AGECA courses from at least two different disciplines.

Physical and Biological Sciences (8)

Select AGECA courses with a laboratory component.

Mathematics (3-4)

MAT 141 College Mathematics, Standard (4) or higher

Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor, and see the Transfer Guides at <http://aztransfer.com/college/>

Special Awareness Requirements (0-9 Credits)

Select AGECA courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences or Transfer Electives may also be used to satisfy the three Special Awareness Requirements categories.



A course may not be used to satisfy more than one Special Awareness Requirements category.

Note: Some Transfer Articulation Agreements require a specific number of credits in the Arts and Humanities or the Social and Behavioral Sciences categories. Refer to the officially published TAG, TAP, CAC2NAU or other articulation pathway document for details and consult an advisor.

Students must earn a grade of "C" or better in each course.

Students must earn at least one-third of the AGEC-A Certificate credits from CAC.

Arizona General Education Curriculum for Business (AGEC-B Certificate)

(35-36 Semester Credits)

Aravaipa, Maricopa, San Tan, Signal Peak and Superstition Mountain Campuses





General Education (35-36)

The Arizona General Education Curriculum focused on Business (AGEC-B) is a 35 semester credit block that fulfills the lower division general education requirements of many business programs and other programs that articulate with the Associate of Business Degree. The block transfers to any Arizona public or tribal community college, to the three Arizona public universities, and other higher education institutions. The AGEC-B requires a minimum of Brief Calculus plus 32 credits from specific AGEC categories.

Subject Area Requirements

An approved AGEC-B, together with the number of courses and number of semester credits, must contain the following Subject Areas. Select AGEC courses only.

Written Communications (6)

ENG 101 English Composition III (3)   ENG 1101
ENG 102 English Composition IV (3)   ENG 1102

Oral Communications (3)

Select an AGEC course.

For the following two categories, select a total of 15 credits.

Arts and Humanities (6-9)

Select a minimum of one Art (3) and one Humanities (3) AGEC course.


Social and Behavioral Sciences (6-9)

Select AGEC courses from at least two different disciplines.

Physical and Biological Sciences (8)

Select AGEC courses with a laboratory component.

Mathematics (3-4)

MAT 211 Brief Calculus (4)  or higher

Computer Information Systems (3)

CIS 120 Survey of Computer Information Systems (3)

 CIS 1120

Subject Options (0-3)

Based on your major, review the specific Associate of Business Degree requirements in the CAC Catalog, consult an academic advisor and see the Transfer Guides at <http://aztransfer.com/college/>

Special Awareness Requirements (0-9)

Select AGEC courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences or Transfer Electives may also be used to satisfy the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Note: Some Transfer Articulation Agreements require a specific number of credits in the Arts and Humanities or the Social and Behavioral Sciences categories. Refer to the officially published TAG, TAP, CAC2NAU or other articulation pathway document for details and consult an advisor.

Students must earn a grade of "C" or better in each course.

Students must earn at least one-third of the AGEC-B Certificate credits from CAC.



Arizona General Education Curriculum for Science (AGEC-S Certificate)

(35-37 Semester Credits)

**Aravaipa, San Tan, Signal Peak and
Superstition Mountain Campuses**

General Education

The Arizona General Education Curriculum focused on the Sciences (AGEC-S) is a 35-37 semester credit block that fulfills the lower division general education requirements of many science programs and other programs that articulate with the Associate of Science Degree. The block transfers to any Arizona public or tribal community college, to the three Arizona public universities, and other higher education institutions. The AGECS requires a minimum of Analytical Geometry and Calculus I plus 32 credits from specific AGECS categories, including rigorous science requirements.

Subject Area Requirements

An approved AGECS, together with the number of courses and number of semester credits, must contain the following Subject Areas. Select AGECS courses only.

Written Communications (6)

ENG 101 English Composition III (3) ENG 1101
ENG 102 English Composition IV (3) ENG 1102

Arts and Humanities (6)

Select one Art (3) and one Humanities (3) AGECS course.

Social and Behavioral Sciences (6)

Select AGECS courses from at least two different disciplines.

Physical and Biological Sciences (8)

BIO 181 General Biology I (4) BIO 1181 AND
BIO 182 General Biology II (4) BIO 1182

OR

CHM 151 General Chemistry I (4) CHM 1151 AND
CHM 152 General Chemistry II (4) CHM 1152

OR

PHY 121 University Physics I: Mechanics (4)
 PHY 1121 AND
PHY 122 University Physics II: Electricity and
Magnetism (4) PHY 1131

Mathematics (3-4)

MAT 221 Analytical Geometry and Calculus I (4) or higher
 MAT 2220

Subject Options (6-8 credits)

Based on your major, consult the Transfer Guide at <http://aztransfer.com/college> and select mathematics courses above the first course in the calculus sequence and/or Science courses from: Agriculture, Astronomy, Biology, Botany, Chemistry, Environmental Science, Geology, Physical Geography, Nutrition, Physics or Zoology.

Special Awareness Requirements (0-9)

Select AGECS courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness

Note: Courses used in other areas, such as Communications, Arts and Humanities, Social and Behavioral Sciences or Transfer Electives may also be used to satisfy the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Note: Some Transfer Articulation Agreements require a specific number of credits in the Arts and Humanities or the Social and Behavioral Sciences categories. Refer to the officially published TAG, TAP, CAC2NAU or other articulation pathway document for details and consult an advisor.

Students must earn a grade of "C" or better in each course.

Students must earn at least one-third of the AGECS Certificate credits from CAC.





PROGRAMS OF STUDY

Accounting

Accounting A.A.S. (53)
Accounting Certificate (54)

Administration of Justice

Administration of Justice Studies A.A. (54)
Administration of Justice A.A.S. (55)

AGEC

AGEC-Arts Certificate (48)
AGEC-Business Certificate (49)
AGEC-Science Certificate (50)

Agriculture

Agriculture A.A. (56)
Agriculture A.S. (57)
Agriculture Business Certificate (58)
Agriculture General A.A.S. (59)
Agriculture General Certificate (60)

Animal Science

Equine Management and Training A.A.S. (61)
Equine Management and Training Certificate (61)

Biology

Biotechnology A.S. (62)

Building Construction Technology

Building Construction Technology A.A.S. (63)
Building Construction Technology Certificate (64)

Business

Business A.A.S. (65)
Business Certificate (66)
Management Certificate (66)
Hotel and Restaurant Management A.A.S. (67)
Hotel and Restaurant Management
Certificate (68)
Recreation Management Certificate (125)
See **Sports and Fitness**
Real Estate Certificate (69)

Chemistry

Chemistry A.S. (70)

Communications

Communication Skills for the Professional
Certificate (71)
Communication Studies Certificate (71)

Computer

Application Development and Web Design
Certificate (72)

Computer Aided Design Certificate (128)

See **Technology**

Computer Programming A.A.S. (72)
Computer Programming Certificate (73)
Geographic Information Systems A.A.S. (73)
GIS Drafting and Mapping Certificate (74)
Microcomputer Business Applications A.A.S. (75)
Microcomputer Business Applications Specialist
Certificate (75)
Network Systems Administration with Cyber-Security
Fundamentals A.A.S. (76)
Network Administration with Cyber-Security
Fundamentals Certificate (77)

Creative Arts

Artist and Venue Management A.A.S. (77)
Artist and Venue Management Certificate (78)
Live Audio and Lighting A.A.S. (79)
Live Audio and Lighting Certificate (79)
Popular Music Performance A.A.S. (80)
Popular Music Performance Certificate (81)
Recording Engineering A.A.S. (81)
Recording Engineering Certificate (82)
Fine Arts A.A. (82)
Graphic Design A.A.S. (83)

Culinary Arts

Baking and Pastry Certificate (84)
Culinary Arts A.A.S. (85)
Culinary Arts I Certificate (86)
Culinary Arts II Certificate (87)

Diesel/Heavy Equipment

Diesel and Heavy Equipment Technology A.A.S. (88)
Diesel and Heavy Equipment Technology Certificate (89)
Heavy Equipment Operator A.A.S. (89)
Heavy Equipment Operator Certificate (90)

Education

Early Childhood Education – A.A. (AAECE) (91)
Early Childhood Education A.A.S. (92)
Early Childhood Education – Family Childcare
Certificate (93)
Early Childhood Education – Management
Certificate (94)
Early Childhood Education – Preschool Certificate (94)
Early Childhood Education – Infant/Toddler A.A.S. (95)
Early Childhood Education – Infant/Toddler
Certificate (96)
Elementary Education A.A.E.E. (96)



Emergency Medical Services

Basic EMT Certificate (98)
Critical Care for Paramedics Certificate (99)
Paramedicine A.A.S. (99)

Fire Services

Driver Operator Certificate (100)
Fire Officer 1 Certificate (101)
Firefighter Operations Certificate (101)
Fire Science Technology A.A.S. (102)
Wildland Firefighter I Certificate (103)

Geographic Information Systems

See Computer

Geology and Planetary Science

Geology and Planetary Science A.S. (103)

Health Careers

Clinical Laboratory Assistant Certificate (104)
Coding and Reimbursement Certificate (105)
Community Public Health A.A. (105)
Health Information Technology A.A.S. (106)
Massage Therapy A.A.S. (107)
Massage Therapy Certificate (109)
Medical Assistant A.A.S. (109)
Medical Assistant Certificate (110)
Nursing A.A.S. (111)
Pharmacy Technician Certificate (112)
Radiologic Technology A.A.S. (113)

Manufacturing

Field Programmable Gate Array (FPGA) Certificate (114)
LabVIEW Programming Certificate (114)
Manufacturing Engineering A.A.S. (115)
Nanofabrication Technology A.A.S. (116)

Nutrition and Dietetics

Community Nutrition Worker Certificate (117)
Diabetes Care and Education Certificate (117)
Dietary Manager Training Program Certificate (118)
Dietetic Technician A.A.S. (118)
Nutrition and Health Promotion Certificate (120)

Renewable Energy Technology

Renewable Energy Technology A.A.S. (120)
Solar Photo Voltaic Technician Certificate (121)

Sports and Fitness

Athletic Training Education Program A.A. (121)
Group Fitness Instructor Certificate (123)

Human Performance Certificate (123)
Recreation and Tourism Management A.A. Degree (124)
Recreation Management Certificate (125)
Sports Management A.A. (125)

Technology

Computer Aided Design Certificate (127)
Welding Technology A.A.S. (127)
Welding Certificate (128)

PROGRAMS WITH SPECIAL REQUIREMENTS

The following degrees and certificates are also offered at Central Arizona College; however, they have special requirements which must be fulfilled before enrollment. Please see the individual listing for specific information.

Building Construction Technology

Carpentry Trades A.A.S. (129)
Carpentry Trades Certificate (130)
Drywall/Lath A.A.S. (131)
Drywall/Lath Certificate (132)

Corrections

Corrections A.A.S. (132)
Advanced Corrections Certificate (133)

Diesel/Heavy Equipment

Heavy Equipment Mechanic's Apprenticeship
Program Certificate (134)
John Deere Construction and Forestry Equipment
Technology A.A.S. (134)
Operator's Apprenticeship Program (AGC)
Certificate (135)

School Business Administration

School Business Administration A.A.S. (136)
School Business Administration Certificate (137)



ACCOUNTING

ACCOUNTING A.A.S.

District-Wide

Total Credits: 65-66

The Accounting Degree prepares students for entry-level accounting positions. Students planning to earn their bachelor's degree in accounting at one of Arizona's state universities should not follow the Accounting A.A.S. Transfer students should follow the Associate of Business (A.BUS.) degree.

Recommended Proficiencies

A solid background in reading, math, and analytical skills is recommended.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) (Recommended)
ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course.

Arts and Humanities (3)

Select a course numbered 100 or above from the following areas: art, humanities, literature, music, philosophy, or theater.

Social and Behavioral Sciences (3)

ECN101 Introduction to Economics (3)
ECN201 Principles of Macroeconomics (3)
ECN202 Principles of Microeconomics (3) OR
Select a Social and Behavioral Science AGEC course.

Physical and Biological Sciences (4)

Select a physical or biological science course or AGEC course with a lab component numbered 100 or above from the following areas: Agriculture Science, Astronomy, Biology, Chemistry, Environmental Science, Geology, Nutrition, or Physics.

Mathematics (3-4)

BUS101 Business Mathematics (3)

Core Requirements (39)

ACC121 Income Tax Fundamentals (3)
ACC201 Financial Accounting (3)*
ACC202 Managerial Accounting (3)
ACC222 Payroll Accounting (3)
ACC226 Accounting with QuickBooks Pro (3)
ACC227 Accounting with Sage 50 Complete (3)
BUS100 Introduction to Business (3)
BUS123 Business Relations (3)
BUS201 Legal Environment of Business (3)
BUS207 Business Communications (3)
BUS260 Applied Business Seminar (3)
CBA133A Spreadsheet Applications – Excel (3)

CIS120 Survey of Computer Information Systems (3)
 CIS 1120

OR

CIS110 Fundamentals of Computer Literacy (3)

**Students may be advised to complete ACC100 prior to completing ACC201.*

Electives (6)

Select electives from the following areas:

ACC Accounting
AGB Agriculture Business
BUS Business
CBA Computer Business Applications
CIS Computer Information Systems
CUL Culinary
ECN Economics
HNR Honors
HRM Hospitality Management
REA Real Estate

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3)
(Fulfilled in Core Requirements)

Optional Internship course (1):

BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least 20 credits from CAC.

This A.A.S. Degree requires 65-66 semester credits.



ACCOUNTING CERTIFICATE

District-Wide




Total Credits: 18-19

The Accounting Certificate prepares individuals for entry-level positions in accounting or bookkeeping.

Recommended Proficiencies

Students should be able to identify and solve basic business problems in operations, finance and accounting, handle business data and human relations.

Core Requirements (18)

ACC121	Income Tax Fundamentals (3)
ACC201	Financial Accounting (3)* 
ACC202	Managerial Accounting (3) 
ACC226	Accounting with QuickBooks Pro (3)
CIS110	Fundamentals of Computer Literacy (3)
OR	
CIS120	Survey of Computer Information Systems (3) 
AND	
ACC222	Payroll Accounting (3)
OR	
ACC227	Accounting with Sage 50 Complete (3)

Optional Internship course (1):
BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)

**Students may be advised to complete ACC100 prior to completing ACC201.*

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

ADMINISTRATION OF JUSTICE

ADMINISTRATION OF JUSTICE STUDIES A.A.

District-Wide

Total Credits: 60-64

The Administration of Justice Studies A.A. Degree academically prepares students to transfer to an accredited university to pursue a career in local and federal law enforcement, the court system, corrections or probation.

General Education Requirements AGEC-A (35-36)

Written Communications (6)

ENG101	English Composition III (3)  
ENG102	English Composition IV (3)  

Oral Communications (3)

Select an AGECE course.

For the following two categories, for each category select courses from different disciplines to total 15 credits:

Arts and Humanities (6-9)






Art

Select an AGECE Art course.

Humanities

AJS123	Ethics and the Administration of Justice (3) (Also fulfills Core Requirement)
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Social and Behavioral Sciences (6-9)

SOC101	Introduction to Sociology (3)  
PSY101	Introduction to Psychology (3)  
AJS101	Introduction to Administration of Justice (3)  (Also fulfills Core Requirement)

Physical and Biological Sciences (8)

Select AGECE courses with a laboratory component.

Mathematics (3-4)

MAT141	College Mathematics, Standard (4)  or higher
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Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor and see the Transfer Guides at [http:// aztransfer.com/college/](http://aztransfer.com/college/)

Special Awareness Requirements (0-9)

Select AGECE courses to fulfill these requirements:

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry (*Fulfilled by AJS225*).
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender).
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness.

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives may also be used to satisfy requirements in the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (18)

- AJS101 Introduction to Administration of Justice (3)
 (*Also fulfills Social and Behavioral Sciences requirement*)
- AJS123 Ethics and the Administration of Justice (3)
 (*Also fulfills Humanities requirement*)
- AJS209 Substantive Criminal Law (3)
- AJS225 Criminology (3)
- AJS230 The Police Function (3)
- AJS260 Procedural Criminal Law (3)

Electives (6-9)

Select AJS prefix course electives to meet the 60-64 credit Degree requirement.

Other Requirements (3)

Reading Competency: RDG094 College Reading

Computer Competency (3):

- AGB124 Microcomputer in Agriculture
- CIS120 Survey of Computer Information Systems

Other A.A. Degree Requirements

Check your university catalog, Transfer Guides at [http:// aztransfer.com/college/](http://aztransfer.com/college/) or meet with an academic advisor. Students may demonstrate proficiency by completion of coursework and/or a proficiency test.

Students must earn a grade of “C” or better in each A.A. degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGECE-A requirements.

The Administration of Justice Studies A.A. Degree requires 60-64 semester credits.

ADMINISTRATION OF JUSTICE A.A.S.

District-Wide

Total Credits: 65

The Administration of Justice Studies A.A.S. Degree prepares students for professional careers in law enforcement, corrections, parole, probation, the judiciary and juvenile social work.

General Education Requirements (25)

Written Communications (6)

- ENG101 English Composition III (3)
- ENG102 English Composition IV (3)

Oral Communications (3)

Select an AGECE COM course..

Arts and Humanities (3)

- AJS123 Ethics and the Administration of Justice (3)

Social Behavioral Sciences (6)

Any two of the following four choices:

- SOC101 Introduction to Sociology (3)
- PSY101 Introduction to Psychology (3)
- POS101 American Politics (3)
- POS220 U.S. and Arizona Constitutions (3)

Physical and Biological Sciences (4)




Select courses numbered 100 or above from biological or physical science disciplines, or any course from the Biological and Physical Lab Science AGECE list, especially those areas which suit major or minor areas of study.

Mathematics (3)

- MAT118 Essential Mathematics (4) or higher
- OR
- BUS101 Business Mathematics (3)



Core Requirements (18)

- AJS101 Introduction to Administration of Justice (3) 
 AJS123 Ethics and the Administration of Justice (3) 
 AJS209 Substantive Criminal Law (3)
 AJS225 Criminology (3) 
 AJS230 The Police Function (3)
 AJS260 Procedural Criminal Law (3)

AJS Electives (12)

Select 12 credits from courses with the AJS prefix.

General Electives (6)

Credit may be granted for prior Police training upon departmental approval, including credit for AJS Core and Elective Requirements. See the CEG for University transferability status.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3) or higher

OR

Transferable Computer Competency course (Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 65 semester credits.



AGRICULTURE

AGRICULTURE A.A.

Signal Peak Campus

Total Credits: 60-64

Students pursuing this Agriculture A.A. Degree may transfer to a university to pursue a Bachelor of Arts Degree in Agriculture.

General Education Requirements

AGEC-A (35-36)

Written Communications (6)

- ENG101 English Composition III (3) 
 ENG102 English Composition IV (3) 

Oral Communications (3)

Select an AGEC course.

For the following two categories, for each category select courses from different disciplines to total 15 credits.

Arts and Humanities (6-9)

Select a minimum of one Art (3) and one Humanities (3) AGEC course.

Social and Behavioral Sciences (6-9)

AGS122 Natural Resources and Conservation (3)

AND

Select another AGEC course from a different discipline.


Physical and Biological Sciences (8)

AGS240 Plant Biology (4) 
 (Fulfilled in Core Requirements)

AND

Select another AGEC course with a laboratory component.

Mathematics (3-4)

MAT141 College Mathematics, Standard (4)  or higher
 (Consult your Agriculture Faculty Advisor for guidance on the mathematics requirement)

Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor, and see the Transfer Guides at <http://aztransfer.com/college/>.



Special Awareness Requirements (0-9)

Select AGECE courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry Historical Awareness
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives may also be used to satisfy requirements in the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (10)

AGB124 Microcomputers in Agriculture (3)

AGS240 Plant Biology (4)

(Fulfills one AGECE Physical and Biological Science requirement)

ANS101 Animal Industry (3)

Electives (12-16)

Select elective credits from college-level, *transferable* courses numbered 100 or higher to meet the 60-64 credit Degree requirement. All electives must transfer to at least two of the three Arizona public universities. Consult the CEG and an Agriculture Faculty Advisor to determine course selections and course equivalencies at the universities.

Other Requirements (3)

Reading Competency: RDG094 College Reading

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)
(Fulfilled in Core Requirements)

Other A.A. Degree Requirements

Check your university catalog, Transfer Guides at <http://aztransfer.com/college/> or meet with an academic advisor. Students may demonstrate proficiency by completion of coursework and/or a proficiency test.

Students must earn a grade of "C" or better in each A.A. degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGECE-A requirements.

This A.A. Degree requires 60-64 semester credits.

AGRICULTURE A.S.

Signal Peak Campus

Total Credits: 60-64

Students earning the Agriculture A.S. Degree may transfer to a university to pursue a Bachelor of Science Degree in Agriculture.

General Education Requirements AGECE-S (35-37)

Written Communications (6)

ENG101 English Composition III (3)

ENG102 English Composition IV (3)

For the following two categories, select courses from different disciplines.

Arts and Humanities (6)

Select a minimum of one Art (3) and one Humanities (3) AGECE course.

Social and Behavioral Sciences (6)

AGS122 Natural Resources and Conservation (3)

AND

Select another AGECE course from a different discipline.

Physical and Biological Sciences (8)

Select AGECE courses with a laboratory component.

Life Science Majors:

CHM151 General Chemistry I (4) AND

CHM152 General Chemistry II (4)

OR

BIO181 General Biology I (4) AND

BIO182 General Biology II (4)

Physical Science Majors:

CHM151 General Chemistry I (4) AND

CHM152 General Chemistry II (4)

OR

PHY121 University Physics I: Mechanics (4) AND

PHY122 University Physics II: Electricity and Magnetism (4)

Mathematics (3-4)

MAT221 Analytical Geometry and Calculus I (4)
or higher

Subject Options (6-8)

Based on your major, consult the Transfer Guides at



<http://aztransfer.com/college/>. Students may select mathematics or science courses. Select Mathematics courses above the first course in the calculus sequence and/or Science courses from: Agriculture, Astronomy, Biology, Botany, Chemistry, Engineering, Environmental Science, Geology, Nutrition, Physical Geography, Physics or Zoology.

Special Awareness Requirements (0-9)

Select AGECE courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness.

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives may also be used to satisfy requirements in the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (10)

- AGB124 Microcomputers in Agriculture (3)
(Fulfills computer competency requirement)
- AGS240 Plant Biology (4)
- ANS101 Animal Industry (3)

Agriculture Electives (12-16)

Select elective credits from college-level, *transferable* courses numbered 100 or higher to meet the 60-64 credit Degree requirement. All electives must transfer to at least two of the three Arizona public universities. Consult the CEG and an Agriculture Faculty Advisor to determine course selections and course equivalencies at the universities.

Other Requirements (3)

Reading Competency: RDG094 College Reading

Computer Competency (3):

- AGB124 Microcomputers in Agriculture (3)
(Fulfilled in Core Requirements)

Students must earn a grade of "C" or better in each A.S. degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGECE-S requirements.

This A.S. Degree requires 60-64 semester credits.

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AGRICULTURE BUSINESS CERTIFICATE

Signal Peak Campus

Total Credits: 27

This Certificate provides students with specialized agricultural workplace skills for entry-level agribusiness positions.

Core Requirements (9)

- AGB100 Introduction to Agriculture Business (3)
AGB124 Microcomputers in Agriculture (3)
AGB225 Agriculture Business Analysis (3)

Select two of the following courses (6):

- AGB213 Introduction to Agricultural Commodity and Food Marketing (3)
AGB121 Resource and Environmental Economics (3)
ANS110 Horse Event Production (3)

Select one of the following courses (3):

- ACC100 Fundamentals of Accounting (3)

OR

- AGB123 Agriculture Accounting (3)

Select one of the following courses (3):

- BUS101 Business Mathematics (3)

OR

- MAT118 Essential Mathematics (4) or higher

Select one of the following courses (3):

- ENG101 English Composition III (3)

OR

- ENG121 Applied Technical Writing (3)

Select one AGECE Oral Communications course (3):

- COM100 Fundamentals of Human Communication (3)

OR

- COM206 Public Speaking (3)

OR

Any AGECE COM course

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.



AGRICULTURE GENERAL A.A.S.



Signal Peak Campus

Total Credits: 65

The A.A.S. Agriculture General Degree prepares students for entry level careers in agribusiness, agricultural systems management, and agricultural sustainability. This A.A.S. Degree transfers to the Arizona Bachelor of Applied Science (BAS) Degree. Students interested in pursuing a baccalaureate degree should review Transfer Agreement Options and meet with a CAC agriculture advisor.

General Education Requirements (19-23)

Written Communications (3)

- ENG101 English Composition III (3)  
 ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course or an AGECE course if you plan to transfer to earn a bachelor's degree.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre courses numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

- AGS122 Natural Resources and Conservation (3)
 (Recommended)

OR

Select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (4)

- AGS240 Plant Biology (4)
 (Fulfilled in Core Requirements)


Mathematics (3-4)

- Select a college-level Mathematics course
 BUS101 Business Mathematics (3)

OR





- MAT118 Essential Mathematics (4) or higher

Core Requirements (10)

- AGB124 Microcomputers in Agriculture (3)
 (Fulfills Computer Competency requirement)
 AGS240 Plant Biology (4) 
 (Fulfills General Education Physical and Biological Science requirement)
 ANS101 Animal Industry (3)

Agriculture Electives (39-42)


Select from the following courses:

- AGB100 Introduction to Ag Business (3)
 AGB121 Fundamental of Agricultural and Environmental Economics (3)
 AGB123 Agriculture Accounting (3)
 AGB130 Agricultural Leadership (1)
 AGB213 Introduction to Agricultural Commodity and Food Marketing (3)
 AGB225 Agriculture Business Analysis (3)
 AGB234 Agricultural Leadership Development (3)
 AGS101 World of Plants (4) 
 AGS104 Agricultural Environmental Science (4) 
 AGS106 Entomology (4) 
 AGS110 Ag Mechanics I (3)
 AGS140 Ag Mechanics II (3)
 AGS195A Careers in Environmental Science (1)
 AGS196 Agriculture Internship (1)
 AGS204 Environmental Sustainability (3)
 AGS221 Soil Science (4) 
 AGS235 Principles of Horticulture (3)
 AGS296 Agricultural Internship (3)
 ANS102 Horsemanship I (3)
 ANS104 Human Animal Interrelationships from Domestication to Present (3)
 ANS110 Horse Event Production (3)
 ANS111 Horseshoeing I (3)
 ANS121 Equine Facility Management I (3)
 ANS122 Equine Facilities Management II (3)
 ANS131 Equine Behavior and Training I (3)
 ANS195 Careers in Veterinary Science (1)
 ANS200 Introduction to Equine Science (3)
 ANS202 Horsemanship II (3)
 ANS211 Advanced Horseshoeing (3)
 ANS213 Animal Genetics (3)
 ANS215 Anatomy and Physiology of Domestic Animals (4)
 ANS216 Equine Anatomy and Physiology (3)
 ANS220 Artificial Insemination (3)
 ANS223 Advanced Equine Training (3)
 ANS226 Feeds and Feeding (3)

OR

Select courses from Agriculture, Technology, Business, Math, or Science with Agriculture Department approval.

Other Requirements (4)

- PAC or DAN Course (1)
 Reading Competency: RDG094 College Reading 



DEGREES AND CERTIFICATES

Computer Competency (3):

AGB124 Microcomputer in Agriculture (3)
(Fulfilled in Core Requirements)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 65 semester credits



AGRICULTURE GENERAL CERTIFICATE

Signal Peak Campus

Total Credits: 32

This Certificate introduces students to agricultural science and technology by focusing on general academic experiences in agriculture. This Certificate prepares students for entry-level careers in agri-science and agribusiness.

Core Requirements (10)

AGB124 Microcomputers in Agriculture (3)
AGS240 Plant Biology (4)
ANS101 Animal Industry (3)

Written Communications (3)

Select one of the following:

ENG101 English Composition III (3)
ENG121 Applied Technical Writing (3)

Agriculture Electives (19)

Select from the following courses:

AGB100 Intro to Agriculture Business (3)

AGB121 Resource and Environmental Economics (3)
AGB123 Agriculture Accounting (3)
AGB130 Agricultural Leadership (1)
AGB213 Introduction to Agricultural Commodity and Food Marketing (3)
AGB225 Agriculture Business Analysis (3)
AGB234 Agricultural Leadership Development (3)

AGS101 World of Plants (4)
AGS104 Agricultural Environmental Science (4)
AGS106 Entomology (4)
AGS110 Agricultural Mechanics I (3)
AGS122 Natural Resources and Conservation (3)
AGS140 Agricultural Mechanics II (3)
AGS195A Careers in Environmental Science (1)
AGS196 Agriculture Internship (1)
AGS204 Environmental Sustainability (3)
AGS221 Soil Science (4)
AGS235 Principles of Horticulture (3)
AGS296 Agriculture Internship (3)

ANS102 Horsemanship I (3)
ANS104 Human/Animal Interrelationship (3)
ANS110 Horse Event Production (3)
ANS111 Horseshoeing I (3)
ANS121 Equine Facilities Management I (3)
ANS122 Equine Facilities Management II (3)
ANS131 Equine Behavior and Training I (3)
ANS195 Careers in Veterinary Science (1)
ANS200 Introduction to Equine Science (3)
ANS202 Horsemanship II (3)
ANS211 Advanced Horseshoeing (3)
ANS213 Animal Genetics (3)
ANS215 Anatomy and Physiology of Domestic Animals (4)
ANS216 Equine Anatomy and Physiology (3)
ANS220 Artificial Insemination (3)
ANS223 Advanced Equine Training (3)
ANS226 Feeds and Feeding (3)
ANS231 Equine Behavior and Training II (3)

OR

Select courses from Agriculture, Technology, Business, Math or Science with Agriculture Department approval.

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.



ANIMAL SCIENCE

EQUINE MANAGEMENT AND TRAINING A.A.S.

Signal Peak Campus

Total Credits: 64

Equine Management and Training contains two options for the Associate of Applied Science Degree. Students complete a Horse Trainer or an Equine Business Management program of study. The degree prepares students for employment in a variety of areas in the horse industry. Classroom activities and practical laboratory experiences are provided in both options.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)  
ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course if you plan to transfer to a bachelor's degree program.


Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.


Social and Behavioral Sciences (3)

Select an AGECE course with a laboratory component.

Physical and Biological Sciences (4)

AGS221 Soil Science (4) 

OR

NTR141 Nutrition and Wellness (4) 

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (48)

ANS102 Horsemanship I (3)
ANS110 Horse Event Production (3)
ANS121 Equine Facility Management I (3)
ANS122 Equine Facility Management II (3)
ANS131 Equine Behavior and Training I (3)

ANS200 Introduction to Equine Science (3)
ANS202 Horsemanship II (3)
ANS216 Equine Anatomy and Physiology (3)
ANS223 Advanced Equine Training (3)
ANS231 Equine Behavior and Training II (3)
ANS101 Animal Industry (3)
ANS111 Horseshoeing I (3)
ANS211 Advanced Horseshoeing (3)
ANS213 Animal Genetics (3)
ANS226 Feeds and Feeding (3)
ANS104 Human and Animal Interrelationships (3)

OR

Select courses from Agriculture, Technology, Business, Math, or Science with Agriculture Department approval.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)

CIS110 Fundamentals of Computer Literacy (3) or higher

OR

Transferable Computer Competency course
(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 71 semester credits.

EQUINE MANAGEMENT AND TRAINING CERTIFICATE

Signal Peak Campus

Total Credits: 36

The Equine Management and Training Certificate provides basic skills and information for equine handling. Courses for the certificate apply toward completion of the Equine Management and Training A.A.S Degree.

Core Requirements (30)

ANS102 Horsemanship I (3)
ANS110 Horse Event Production (3)
ANS121 Equine Facility Management I (3)
ANS122 Equine Facility Management II (3)
ANS131 Equine Behavior and Training I (3)



DEGREES AND CERTIFICATES

- ANS200 Introduction to Equine Science (3)
 ANS202 Horsemanship II (3)
 ANS216 Equine Anatomy and Physiology (3)
 ANS223 Advanced Equine Training (3)
 ANS231 Equine Behavior and Training II (3)

Electives (6)

Select two of the following courses (6):

- ANS101 Animal Industry (3)
 ANS111 Horseshoeing I (3)
 ANS211 Advanced Horseshoeing (3)
 ANS213 Animal Genetics (3)
 ANS226 Feeds and Feeding (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.



BIOLOGY

BIOTECHNOLOGY A.S.

Signal Peak Campus

Total Credits: 60-64

The Biotechnology Associate of Science Degree is designed for those interested in career/transfer path degrees in biology, biotechnology, molecular biology, microbiology, genetic engineering and pre-medical or other pre-professional programs. The Degree also provides applied technical training for those interested in laboratory employment in the

biotechnology industry, medical or an academic research institution.

Prerequisites:

- RDG094 College Reading
 MAT092 Introductory Algebra

General Education Requirements AGEC-S (35-37)

Written Communications (6)

- ENG101 English Composition III (3)  
 ENG102 English Composition IV (3)  

For the following two categories, for each category select courses from different disciplines.

Arts and Humanities (6)





Select one Art (3) and one Humanities (3) AGEC course

Social and Behavioral Sciences (6)



Select AGEC courses from two different disciplines.

Physical and Biological Sciences (8)

Life Science Majors:

- CHM151 General Chemistry I (4)   AND
 CHM152 General Chemistry II (4)  

Mathematics (3-4)

- MAT221 Analytical Geometry and Calculus I (4)  
 or higher

Subject Options AGEC-S (6-8)

Based on your major, consult the Transfer Guide at <http://aztransfer.com/college/> and select mathematics courses above the first course in the calculus sequence and/or Science courses from Biology (BIO181, 205 or 206) Chemistry (CHM151 or higher) or Physics.

Special Awareness Requirements (0-9)

Select AGEC courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness

Note: Courses used in other areas, such as Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives, may also be



used to satisfy one of the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (19)

- BIO181 General Biology I (4)
(Also counts toward AGEC-S)
- BIO205 Microbiology (4)
(Also counts toward AGEC-S)
- BIO206 Biotechnology Instrumentation I (4)
(Also counts toward AGEC-S)
- BIO207 Biotechnology Instrumentation II (4)
- BIO240 General Genetics (3)

Electives (9-13)

Select approved elective courses which transfer as "Elective or better" to at least two of the three Arizona public universities to complete the required A.S. Degree credit requirement.

Students may choose:

- BIO109 Natural History of the Southwest (4)
- BIO182 General Biology II (4)
- BIO299 Introduction to Co-Op: Biotechnology Internship (1)
- CHM235 General Organic Chemistry I (4)
- CHM236 General Organic Chemistry II (4)
- PHY111 College Physics I (4)
- PHY112 College Physics II (4)
- PHY121 University Physics I (4)
- PHY122 University Physics II (4)

Note: Students may use a course to fulfill an AGEC Core Area, such as the Social and Behavioral Sciences, and one Special Awareness Area (Intensive Writing, Cultural, Global/International, or Historical Awareness). In addition, students may use the same course(s) to fulfill degree core and/or elective requirements. A minimum of 60 credits is required for this degree. Consult a CAC Advisor.

Other Requirements (3)

Reading Competency: RDG094 College Reading

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)

OR

CIS120 Survey of Computer Information Systems (3)

OR

Transferable Computer Competency course (Consult the Course Equivalency Guide to determine transferability to the three state public universities.)

Students must earn a grade of "C" or better in each A.S. degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGEC-S requirements.

Biotechnology Associate of Science Degree requires 60-64 credits.

BUILDING CONSTRUCTION TECHNOLOGY BUILDING CONSTRUCTION TECHNOLOGY A.A.S.

District-Wide

Total Credits: 65

The Building Construction Technology AAS Degree prepares students for a career in the home building industry through active, hands-on projects that combine carpentry, plumbing, and electrical skills. A full-time student can complete this degree in a minimum of two years.

Recommended Proficiencies

Students must complete RDG094 or achieve equivalent assessment test scores prior to taking transfer courses. It is recommended they complete the reading requirement prior to or early in the program.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3)

OR

COM206 Public Speaking (3)

Arts and Humanities (3)

Select a 3-credit course numbered 100 of higher in philosophy, art, music, literature or world religions.



Social and Behavioral Sciences (3)

Select one 3-credit course numbered 100 or higher in anthropology, economics, geography, history, political science, psychology, sociology, social science or ethics studies.

Physical and Biological Sciences (4)

The following courses are recommended:

- BIO156 Human Biology for Allied Health (4)
- BIO160 Intro to Human Anatomy and Physiology (4)
- BIO182 General Biology II (4)
- BIO205 Microbiology (4)
- CHM130 Fundamental Chemistry (4)
- ENV101 Environmental Science (4)

Mathematics (3-4)

- MAT101 Essential Mathematics (3) or higher

OR

- BUS101 Business Mathematics (3)

Business Core (9 credits)

Select 3 Business courses:

- ACC121 Income Tax Procedures (3)
- ACC201 Financial Accounting (3)
- BUS100 Introduction to Business (3)
- BUS120 Personal Money Management (3)
- BUS123 Human Relations (3)
- BUS201 Legal Environment of Business (3)
- BUS207 Business Communication (3)

Core Requirements (33 credits)

- BCT110 Introduction to Construction Industry (3)
- BCT120 Plumbing Fundamentals for Construction (4)
- BCT125 Electrical Fundamentals for Construction (4)
- BCT130 Carpentry Fundamentals for Construction (6)
- BCT135 Masonry Fundamentals for Construction (4)
- BCT140 Concrete Finishing Fundamentals for Construction (4)
- BCT152 Applied Construction Technology II (5)
- BCT155 Professional Development for Construction (3)

Electives

Select electives numbered 100 or above to meet A.A.S. degree 65 credit requirement, excluding MAT100.

Other Requirements (4)

PAC or DAN Course (1)

- PAC113 Total Body Conditioning (1) *Recommended*

Reading Competency: RDG094 College Reading 

Computer Competency (3):

Select a minimum of 3 credits:

- AGB124 Microcomputer in Agriculture (3)

OR

- CIS110 Fundamentals of Computer Literacy (3) or Higher

Students must earn:

- a grade of "C" or better in all required courses;
- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 65 semester credits

BUILDING CONSTRUCTION CERTIFICATE

District-Wide

Total Credits: 34

This Certificate prepares students for an entry-level career in the home building industry and union apprenticeships. The student will work on active, hands-on projects that combine carpentry, plumbing, and electrical skills. Student must enroll in 2 consecutive semesters. To complete this program student must commit to full time enrollment.

Recommended Proficiencies

Students should be proficient enough at reading to handle college-level textbooks in this occupational area. It is recommended that students complete RDG094 or achieve equivalent assessment test scores prior to or early in the program.

Corequisites:

MAT082 or equivalent score on math placement test.

Core Requirements (34)

To earn a certificate, a student must pass all of the following courses:

- BCT110 Introduction to Construction Industry (3)
- BCT115 Construction Math and Blueprints (3)
- BCT120 Plumbing Fundamentals for Construction (4)
- BCT125 Electrical Fundamentals for Construction (4)



- BCT130 Carpentry Fundamentals for Construction (6)
 BCT151 Applied Construction Technology I (6)
 BCT152 Applied Construction Technology II (5)
 BCT155 Professional Development for Construction (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.



BUSINESS

BUSINESS A.A.S.

Aravaipa, Maricopa, Signal Peak & Superstition Mountain Campuses

Total Credits: 64-65

The Business A.A.S. Degree prepares students for entry-level positions in business and provides skills necessary for helping them begin their own business.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) 📖 📝 (Recommended)
 OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3) 📖 📝
 COM206 Public Speaking (3) 📖

Or select a COM or AGECE course.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

- BUS190 Principles of Management and Leadership (3) 📖
 ECN200 Contemporary Economic Issues (3) 📖
 ECN201 Principles of Macroeconomics (3) 📖 📝
 ECN202 Principles of Microeconomics (3) 📖 📝

Physical and Biological Sciences (4)

Select a Biological or Physical Science course numbered 100 or above, or an Biological and Physical Lab Science AGECE course.

Mathematics (3-4)

- BUS101 Business Mathematics (3)

Core Requirements (30)

- ACC121 Income Tax Fundamentals (3)
 ACC201 Financial Accounting (3)* 📖
 ACC202 Managerial Accounting (3) 📖
 BUS100 Introduction to Business (3)
 BUS123 Business Relations (3)
 BUS201 Legal Environment of Business (3)
 BUS207 Business Communications (3)
 BUS260 Applied Business Seminar (3)
 CBA133A Spreadsheet Applications in Excel (3)
 CIS120 Survey of Computer Information Systems (3) 📖

* Students may be advised to complete ACC100 prior to Enrolling in ACC201 📖.

Electives (14)

Select 14 credits from the following list to total at least 64 credit hours for this degree.

- ACC Accounting
 AGB Agriculture Business
 BUS Business
 CBA Computer Business Applications
 CIS Computer Information Systems
 CUL Culinary Arts
 ECN Economics
 HRM Hospitality Management
 REA Real Estate

Other Requirements (4)


PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 📖



DEGREES AND CERTIFICATES

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3) 
(Fulfilled in Core Requirements)

Optional Internship course (1):

BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64-65 semester credits.

BUSINESS CERTIFICATE

District-Wide


Total Credits: 18-19

The Business Certificate prepares individuals for entry-level positions in businesses, provides skills to help them organize their own business, and leads to the Business A.A.S.

Core Requirements (15)

ACC100 Fundamentals of Accounting (3)

OR

ACC201 Financial Accounting (3) 


BUS100 Introduction to Business (3)



BUS101 Business Mathematics (3)

CIS120 Survey of Computer Information Systems (3)



Select one of the following courses (3):

ECN200 Contemporary Economic Issues (3) 

ECN201 Principles of Macroeconomics (3)  

ECN202 Principles of Microeconomics (3)  

Electives (3)

Complete 3 credits from the following prefixes to total 18 credits:

ACC Accounting

BUS Business

CBA Computer Business Applications

CIS Computer Information Systems

ECN Economics

HRM Hospitality Management

REA Real Estate

Optional Internship course (1):

BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

MANAGEMENT CERTIFICATE

District-Wide

Total Credits: 30-31

This Management Certificate focuses on communication, finances and legal issues including basic marketing and management principles that develop leadership and supervision skills. This certificate qualifies for sponsorship of the Retail Management Certificate Program with the Western Association of Food Chains (www.WAFC.com) or WAFC national partnership (see Business Division, Management Certificate for company listings and program details).

Recommended Proficiencies

RDG094 College Reading 

Core Requirements (30)

Recommended Course Order:

Select one Human Relations course (3):

BUS123 Business Relations (3)

OR

COM100 Fundamentals of Human Communications (3)

AND

CIS120 Survey of Computer Information Systems (3)

Select one Business Foundation course (3):

BUS100 Introduction to Business (3)

OR

BUS122 Small Business Management (3)

General Business Management courses (15):

BUS180 Introduction to Marketing (3)

BUS190 Principles of Management and Leadership (3)

BUS207 Business Communication (3)

HRM252 Managing Hospitality Human Resources (3)

BUS101 Business Mathematics (3)

**Select one Accounting course (3):**

ACC100 Fundamentals of Accounting (3)

OR

ACC201 Financial Accounting (3)

AND

BUS220 Retail Management (3) (Capstone Course)

Optional Internship course (1):BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)**Other Requirements**

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.






HOTEL AND RESTAURANT MANAGEMENT A.A.S.

Signal Peak Campus**Total Credits: 66-67**











The Hotel and Restaurant Management A.A.S. Degree includes hospitality industry certified courses, university-level business courses and the Arizona General Education Curriculum (AGEC-A). The AGEC-A requirements in this A.A.S. Degree fulfill university transfer with remaining courses to be evaluated on a course-by-course basis.

NAU School of Hotel and Restaurant Management accepts the AGEC-A and all HRM core courses, not to exceed 64 credits. (HRM103 + CUL105 or NTR105 or CUL205 are highly recommended for NAU transfer students). See the CEG for details and the Transfer Pathway Options at: http://www.centralaz.edu/Home/Student_Resources/University_Transfer/CAC_Nationwide_Transfer_Partnerships.htm.

General Education Requirements AGEC-A (35-36)














Written Communications (6)ENG101 English Composition III (3)  ENG102 English Composition IV (3)  **Oral Communications (3)**COM263 Intercultural Communication (3) 

For the following three categories, select a total of 15 credits. Students must choose coursework from more than one discipline for both the Arts and Humanities Category.

Arts (3)ART208 Art History II (3)  MHL100 Music Appreciation (3) THE100 Theater Appreciation (3) **Humanities (3)**LIT201 American Literature I (3) LIT202 American Literature II (3) LIT203 English Literature I (3) LIT204 English Literature II (3) LIT233 American Ethnic Literature (3) LIT254A Literature and Film (3) PHI105 Introduction to Ethics (3)  **Social and Behavioral Sciences (6-9)***Select AGEC courses from different disciplines:*

BUS123 Business Relations (3)

BUS190 Principles of Leadership and Management (3)

ECN201 Principles of Macroeconomics (3)  ECN202 Principles of Microeconomics (3)  **AND***Select one from the following list:*GEO101 Introduction to Cultural and Historical Geography (3) PSY101 Introduction to Psychology (3)  SOC101 Introduction to Sociology (3)  **Physical and Biological Sciences (8)**BIO100 Biology Concepts (4) CHM130 Fundamental Chemistry (4)  ENV101 Environmental Science (4) NTR141 Nutrition and Wellness (4) PHY100 Physical Universe (4) **Mathematics (3-4)**MAT141 College Mathematics, Standard (4)  or higher**Subject Options (0-6)**

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor, and see the Arizona Transfer website at <http://aztransfer.com/college/>

Special Awareness Requirements (0-9)*Select AGEC courses to fulfill these requirements:*

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness


Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives, may also be



DEGREES AND CERTIFICATES

used to satisfy requirements in the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (30)

CIS120 Survey of Computer Information Systems (3) 
 CUL170 Dining and Beverage Operations (2)
 HRM101 Facilities Management (3)
 HRM102 Management of Guest Services (3)
 HRM103 Managing Food Service Operations (3)
 HRM145 Convention and Meeting Management (3)
 HRM252 Managing Hospitality Human Resources (3)

ACC100 Fundamentals of Accounting (3)

OR

ACC201 Financial Accounting (3) 


CUL130 Culinary Principles & Applications I (3)

OR

CUL160 Baking and Pastry I (3)

HRM100 Introduction to Hospitality (3)

OR

REC101 Recreation, Leisure and Quality of Life (3) 

Select one of the following courses:


CUL105 Food Safety Foundations (1)
 CUL205 HACCP Principles (1)
 NTR105 ServSafe Certification (1)

Other Requirements (4)

PAC or DAN Course (1) (*Recommended: PAC101A, Basics & Beginning Techniques of Golf*)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3) 
 (*Fulfilled in Core Requirements*)

Optional Internship course (1):

BUS196 Applied Business Internship (1)
 (45-90 hour internship in related industry)

Students must earn a grade of "C" or better in each AGEC-A course.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;

- a minimum of 20 credits from CAC which includes the AGEC-A requirements.

Note: This A.A.S. Degree requires the AGEC-A Certificate. Students must apply for both the AGEC-A Certificate and the Degree.

The Hotel and Restaurant Management A.A.S. Degree requires 66-67 credits.

HOTEL AND RESTAURANT MANAGEMENT CERTIFICATE

District-Wide

Total Credits: 18-19

The Hotel and Restaurant Management Certificate provides specialized workplace skills which enhance options for progressive or lateral career movement in hotel and lodging or restaurant management. Included are foundational concepts and skills in the hospitality industry, human resources and employment law, supervision, guest services, facilities and event management.

Completion of these basic skills within one year increases employability of graduates. Certificate courses stack toward the Hotel and Restaurant Management A.A.S. Degree and most courses are eligible for transfer to universities offering bachelor degree programs in Hotel and Restaurant Management. HRM courses are accepted to fulfill the Business A.A.S. Degree's fourteen (14) elective credits.

Each HRM course utilizes curriculum from the American Hotel and Lodging Association. Students may receive a nationally-recognized and industry-standardized AHLA Course Certificate upon achieving 70% competency on each course final exam. <http://www.ahla.com/>

Prerequisites

RDG094 College Reading (3)

Core Requirements (12)

HRM100 Introduction to Hospitality (3)
 HRM101 Facilities Management (3)
 HRM102 Management of Guest Services (3)
 HRM252 Managing Hospitality Human Resources (3)



Electives (6)

*HRM prefix highly recommended for HRM majors and
CUL prefix highly recommended for Restaurant
Management or Culinary Arts majors.*

Select six credits from the following list:

CUL105 Food Safety Foundations (1)

OR

NTR105 ServSafe Certification (1)

CUL130 Culinary Principles and Applications I (3)

OR

CUL160 Baking and Pastry I (3)

CUL170 Dining and Beverage Operations (2)

CUL205 HACCP Principles (1)

HRM103 Managing Food Service Operations (3)

HRM145 Convention and Meeting Management (3)

Optional Internship course (1):

BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

This Certificate requires 18-19 credits.

REAL ESTATE CERTIFICATE

District-Wide

Total Credits: 18-19

The Real Estate Certificate prepares students with basic real estate foundation in principles and practices, contract writing and residential property management. Courses are designed to prepare students with the minimum coursework required by the state of Arizona for eligibility to take the state's real estate salesperson's license exam. Business courses emphasize successful basics working in the real estate field that include computer literacy, communication and management skills. An optional one

credit course with a 45-90 hour internship course in a real estate office is included.

Real Estate Core Requirements (9)

REA122 Real Estate Principles and Practices (6)

REA123 Introduction to Contract Writing (1)

REA283 Residential Property Management (2)

Additional Core Requirements (9):

Select one of the following courses (3):

BUS122 Small Business Management (3)

OR

BUS201 Legal Environment of Business (3)

Select one of the following courses (3):

BUS123 Business Relations (3)

OR

BUS207 Business Communications (3)

Select one of the following courses (3):

CIS110 Fundamental of Computer Literacy (3)

OR

CIS120 Computer Information Systems (3)

Optional Internship course (1):

BUS196 Applied Business Internship (1)

(45-90 hour internship with real estate office - licensed or unlicensed assistant)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.





CHEMISTRY

CHEMISTRY A.S.

Signal Peak Campus

Total Credits: 60-64

The Chemistry A.S. Degree is appropriate for students who plan to transfer to the university to earn a baccalaureate degree in physical science areas such as Chemistry and related pre-professional programs. It is also appropriate for students interested in becoming lab technicians.

General Education Requirements AGEC-S (35-37)

Written Communications (6)

ENG101 English Composition III (3)  

ENG102 English Composition IV (3)  

Arts and Humanities (6)

Select one Art (3) and one Humanities (3) AGEC course.

Social and Behavioral Sciences (6)



Select AGEC courses from two different disciplines.

Physical and Biological Sciences (8)

CHM151 General Chemistry I (4)  

CHM152 General Chemistry II (4)  

Mathematics (3)

MAT221 Analytical Geometry and Calculus I (4)  
or higher

Subject Options (6-8)



MAT231 Calculus with Analytical Geometry II (4)  

MAT241 Analytical Geometry and Calculus III (4)  

MAT262 Ordinary Differential Equations (3)  

BIO181 General Biology I (4)  

BIO182 General Biology II (4)  

BIO205 Microbiology (4)  

Special Awareness Requirements (0-9)

Select AGEC courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in

Cultural Awareness (Ethnic/Race/Gender)



3. At least three semester credits of coursework emphasizing Global/International Awareness or Historical Awareness



Note: Courses used in other areas, such as Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives, may also be used to satisfy requirements in these the Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (16)

CHM235 Organic Chemistry I (4)  

CHM236 Organic Chemistry II (4)  

PHY121 University Physics I: Mechanics (4)  

PHY122 University Physics II: Electricity and Magnetism (4)  

Transferable Electives (0-12)

Based on your major, consult the Transfer Guide at <http://aztransfer.com/college/> and select mathematics courses above the second course in the calculus sequence and/or Science courses from: Astronomy, Biology, Chemistry, Engineering, Environmental Science, Geology or Physics.

Select elective credits that transfer to the chosen university. Consult the CEG.

Other Requirements (3)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture

OR

CIS120 Survey of Computer Information Systems (3) 

OR

Transferable Computer Competency course (Consult the Course Equivalency Guide to determine transferability to the three state public universities.)

Students must earn a grade of "C" or better in each A.S. degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGEC-S requirements.

The Chemistry A.S. Degree requires 60-64 credits.



COMMUNICATIONS

COMMUNICATION SKILLS FOR THE PROFESSIONAL CERTIFICATE

District-Wide


Total Credits: 21

The Communication Skills for the Professional Certificate prepares students with strong professional communication skills applicable to a wide-variety of employment situations. The Certificate also familiarizes students with communication technologies. Students are prepared for continued education in communication studies.

Prerequisites

RDG094 College Reading (3)
ENG100 English Composition II (3)

Core Requirements (15)

COM100 Fundamentals of Human Communication (3)
COM259 Professional Communication (3) 
COM101 Interpersonal Communication (3)

OR

COM263 Intercultural Communication (3)
COM202 Small Group Communication (3)

OR

COM206 Public Speaking (3)
ENG101 English Composition III (3)

OR

ENG121 Applied Technical Writing (3)

Select one of the following course pairs (6):

MSC120 Graphic Design and Adobe InDesign (3)

AND

MSC122 Introduction to Web Design (3)

OR

CIS120 Survey of Computer Information Systems (3)

AND

CBA210 Web Development Tools (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

COMMUNICATION STUDIES CERTIFICATE

District-Wide

Total Credits: 21

The Communication Studies Certificate prepares students with strong general communication skills applicable to a wide-variety of employment situations. The Certificate also prepares students for continued education in communication studies.


Prerequisites

RDG094 College Reading (3)
ENG100 English Composition II (3)



Core Requirements (15)

COM100 Fundamentals of Human Communication (3)
ENG101 English Composition III (3)

Select three of the following courses (9):

COM101 Interpersonal Communication (3)
COM202 Small Group Communication (3)
COM206 Public Speaking (3)
COM259 Professional Communication (3) 
COM263 Intercultural Communication (3)

Select two of the following courses (6):

ENG102 English Composition IV (3)
ENG121 Applied Technical Writing (3)
MSC101 Media and Society (3)
PSY101 Introduction to Psychology (3)
PSY200 Social Psychology (3)
SOC101 Introduction to Sociology (3)  

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.





COMPUTER

APPLICATION DEVELOPMENT AND WEB DESIGN CERTIFICATE

Signal Peak Campus

Total Credits: 29

This Application Development and Web Design Certificate offers students preparation for an entry-level position in application and web development.

Recommended Proficiencies

RDG094 College Reading (3)

Core Requirements (29)

CIS111 Introduction to the Internet (2)
 CIS112 Web Page Design Fundamentals (3)
 CIS120 Survey of Computer Information Systems (3)
 CIS214 Application Development in Excel (3)
 CIS217 Application Development in Access (3)
 CBA133A Spreadsheet Applications in Excel (3)
 CBA134A Database Management in Access (3)
 CBA210 Web Development Tools (3)
 CBA211 JavaScript Programming (3)
 CBA212 Adobe Flash Animation (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

COMPUTER PROGRAMMING A.A.S.

**Signal Peak & Superstition Mountain
Campuses**

Total Credits: 65

The Programming A.A.S. Degree focuses on the analysis, design and programming skills necessary for entry-level programming positions. Successful completion may lead to Certified Software Development Professional and Sun Certified Java Programmer.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) (SUN ENG 1101)

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course if you plan to transfer to earn a bachelor's degree.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above or an AGECE course.

Social and Behavioral Sciences (3)

ECN201 Principles of Macroeconomics (3)

ECN202 Principles of Microeconomics (3)

Or select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological or Physical Science course numbered 100 or above, or an AGECE course.

Mathematics (6-7)

BUS101 Business Mathematics (3) AND

MAT121 Intermediate Algebra, Standard (4) or higher

Core Requirements (42)


BUS100 Introduction to Business (3)
 BUS207 Business Communications (3)
 CIS112 Web Page Design Fundamentals (3)
 CIS120 Survey of Computer Information Systems (3)
 CIS121 Microcomputer Operating System Fundamentals (3)
 CIS123 Introduction to Programming (3)
 CIS150 Windows Server (3)
 CIS181 C#.Net (4)
 CIS214 Application Development in Excel (3)
 CIS216 Java Programming (4)
 CIS217 Application Development in Access (3)
 CIS218 C++ Programming (4)
 CIS233 Web Application Development using PHP (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading

**Computer Competency (3):**

CIS120 Survey of Computer Information Systems (3) 
(Fulfilled in the Core Requirements)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 65 credits.

COMPUTER PROGRAMMING CERTIFICATE

**Signal Peak & Superstition Mountain
Campuses**


Total Credits: 23

The Computer Programming Certificate emphasizes knowledge and skills required to design, develop, test and document structured and object-oriented programs utilizing a variety of programming languages. It prepares students for entry-level positions in computer programming. Successful completion may lead to Certified Software Development Professional and Sun Certified Java Programmer.

Recommended Proficiencies

RDG094 College Reading (3)

Core Requirements (23)

CIS112 Web Design Fundamentals (3)
CIS120 Survey of Computer Information
Systems (3) 
CIS121 Microcomputer Operating System
Fundamentals (3)
CIS123 Introduction to Programming (3)
CIS150 Windows Server (3)
CIS216 JAVA Programming (4)
CIS218 C++ Programming (4)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

GEOGRAPHIC INFORMATION SYSTEMS (GIS) A.A.S.

**Maricopa, San Tan, Signal Peak &
Superstition Mountain Campuses**

Total Credits: 64-67

Creation, analysis, and mapping of Geographic Information Systems (GIS) data, including environmental transportation systems and/or communities applications to prepare students for entry-level positions utilizing GIS, AutoCAD, GPH and GPS technology and/or to progress toward a baccalaureate degree.

Prerequisite:

MAT118 Essential Mathematics (4) or higher

General Education Requirements (23-24)

For the following six categories, choose from the recommended courses or select AGECE courses from the equivalent category.

Written Communications (3)

ENG101 English Composition III (3)  
ENG121 Applied Technical Writing (3)


Oral Communications (3)

COM100 Fundamentals of Human Communication (3)
(Recommended)
Or select a COM course, or an AGECE Communication course.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.


Social and Behavioral Sciences (3)

GEO101 Introduction to Cultural and Historical
Geography (3) 
OR

Select any Social & Behavioral Science course or an AGECE course.

Physical and Biological Sciences (8)

GPH111 Introduction to Physical Geography (4)
AND


BIO100 Biology Concepts (4) 
Or select Physical & Biological courses, or AGECE Physical/Biological Science Lab courses.



Mathematics (3-4)

MAT121 Intermediate Algebra, Standard (4)

OR

MAT162 Applied Statistics (3)  (Recommended)
or higher

Core Courses (18)

GIS101 Introduction to Geographic Information Technologies (3)

GIS102 Map and Image Interpretation (3)

GIS111 Introduction to GIS (4)

GIS112 Intermediate GIS (4)

GIS113 Advanced GIS (4)

Course Electives (Select 18-19 credits)

Select elective credits to meet the 64 credit Degree requirement.

CET221 Basic Surveying and Grade Staking (4)

DFT127 AutoCAD I (3)

DFT128 AutoCAD II (3)

DFT131 AutoCAD III (3)

GIS150 GIS and Global Positioning Systems (GPS) (3)

GIS196 GIS Internship I (3)

GIS210 GIS Programming (3)

GIS230 Applied GIS: The Environment (3)

GIS231 Applied GIS: Transportation Systems (3)

GIS232 Applied GIS: Communities (3)

GIS250 Remote Sensing I (4)

GIS251 Remote Sensing II (4)

GIS296 GIS Internship II (3)

GIS299 GIS Research Methods (4)


Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)

CIS120 Survey of Computer Information Systems (3) 
(Recommended) OR

Transferable Computer Competency course
(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64-67 credits.

GIS DRAFTING AND MAPPING CERTIFICATE

Maricopa, San Tan, Signal Peak & Superstition Mountain Campuses

Create, analyze and map Geographic Information Systems (GIS) data to prepare students for positions using GIS and GPS technology and/or to progress towards the GIS A.A.S. Degree.

Total Credits: 33

Prerequisite:

MAT118 Essential Mathematics (4) or higher

Core Requirements (33)

GIS101 Introduction to Geographic Information Technologies (3)

GIS102 Map and Image Interpretation (3)

GIS111 Introduction to GIS (4)

GIS112 Intermediate GIS (4)

GIS113 Advanced GIS (4)

DFT127 AutoCAD I (3)

DFT128 AutoCAD II (3)

DFT131 AutoCAD III (3)

GIS150 GIS and Global Positioning Systems (GPS) (3)

GIS196 GIS Internship I (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.





MICROCOMPUTER BUSINESS APPLICATIONS A.A.S.

**Signal Peak & Superstition Mountain
Campuses**

Total Credits: 66

The Microcomputer Business Applications A.A.S. Degree prepares students to select and use computer business application tools in a variety of business situations. Students learn basic web page skills for interaction between business application data and web pages. Successful completion may lead to Microsoft Certified Office User and Certified Internet Webmaster.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course if you plan to transfer to earn a bachelor's degree.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological or Physical Science courses numbered 100 or above, or an AGECE Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (46)

ACC100 Fundamentals of Accounting (3)

BUS100 Introduction to Business (3)

BUS123 Business Relations (3)

BUS207 Business Communications (3)
 BUS260 Applied Business Seminar (3)
 CBA122A MS Word - Module 1 (2)
 CBA133A Spreadsheet Applications in Excel (3)
 CBA133B Advanced Spreadsheet Applications in Excel (3)
 CBA134A Database Management in Access (3)
 CBA210 Web Development Tools (3)
 CIS111 Introduction to the Internet (2)
 CIS112 Web Page Design Fundamentals (3)
 CIS120 Survey of Computer Information Systems (3)
 CIS121 Microcomputer Operating System Fundamentals (3)
 CIS214 Application Development in Excel (3)
 CIS217 Application Development in Access (3)

Electives

Select college-level Electives numbered 100 or higher to meet 66-credit requirement.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3)
 (Fulfilled in Core Requirements)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 66 credits.

MICROCOMPUTER BUSINESS APPLICATIONS SPECIALIST CERTIFICATE

**Aravaipa, Maricopa, San Tan, Signal Peak
& Superstition Mountain Campuses and
Corporate Center**

Total Credits: 24

The Microcomputer Business Applications Specialist Certificate provides students with skills in business application software required for entry-level employment in an office environment.



Prerequisite:

RDG094 College Reading (3)

Core Requirements (24)

BUS101	Business Mathematics (3)
CBA116A	MS PowerPoint – Basic (1)
CBA117A	MS Publisher – Basic (1)
CBA118	MS Outlook (1)
CBA122A	MS Word – Module 1 (2)
CBA122B	MS Word – Module 2 (2)
CBA133A	Spreadsheet Applications in Excel (3)
CBA134A	Database Management in Access (3)
CIS111	Introduction to the Internet (2)
CIS121	Microcomputer Operating System Fundamentals (3)
OAS101	Keyboard – Alphabetic (1)
OAS103	Keyboard – Speed/Accuracy (1)
OAS104	Ten-Key Pad (1)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

NETWORK SYSTEMS ADMINISTRATION with CYBER- SECURITY FUNDAMENTALS A.A.S.

District-Wide

Total Credits: 65-71

The Network System Administration with Cyber-Security Fundamentals A.A.S. Degree covers building a network, configuring networks and cyber-security fundamentals, which prepares students for an entry-level position as a network administrator. Graduates may enter a Baccalaureate Degree program and/or set for Network+ Certification and A+ Network Certification examinations.

Prerequisite:

RDG094 College Reading (3)

Recommended Proficiencies

For students transferring to the University of Arizona BAS Network Administration program, SPA101 and SPA102 are required, or proficiency at that level.

General Education Requirements (22-23)

Written Communications (6)

ENG101 English Composition III (3)
ENG102 English Composition IV (3)

Oral Communications (3)

COM263 Intercultural Communication (3)

Arts and Humanities (3)

PHI105 Introduction to Ethics (3)

Social and Behavioral Sciences (3)

ECN201 Principles of Macroeconomics (3)
ECN202 Principles of Microeconomics (3)

Physical and Biological Sciences (4)

Select a Biological or Physical Science courses numbered 100 or above, or an AGECE course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT121 Intermediate Algebra, Standard (4) or higher

Core Requirements (45)

BUS100	Introduction to Business (3)
BUS207	Business Communications (3)
CIS120	Survey of Computer Information Systems (3) (Fulfills Computer Competency requirement)
CIS121	Microcomputer Operating System Fundamentals (3)
CIS123	Introduction to Programming (3)
CIS130	Networking Essentials (3)
CIS135	Principles of Telephony and Telecommunications (3)
CIS150	Windows Server (3)
CIS152	Windows Network Infrastructure (3)
CIS153	Network Security (3)
CIS210	Cloud Computing (3)
CIS213	Linux Server (3)
CIS215	CISCO CCNA Routers (3)
CIS219	Exchange Server (3)
CIS220	Security for Wireless Networks (3)



Electives

Select college-level courses to total 68 credits to earn this degree.

Optional Internship course (1):

BUS196 Applied Business Internship (1) (45-90 hour internship in related industry)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3) (Fulfilled under Core Requirements)

For students transferring to the University of Arizona B.A.S. Network Administration program, SPA101 and SPA102 are required, or proficiency at that level.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 68-69 credits.

NETWORK ADMINISTRATION with CYBER-SECURITY FUNDAMENTALS CERTIFICATE

District-Wide

Total Credits: 27-28

This Certificate prepares students for responsibilities in creating a network, configuring a network and incorporating cyber-security fundamentals, which leads to an entry-level position as a network administrator. Successful completion may lead to Microsoft Certified System Administration, Network+ Certification, and CCNA Certification.

Recommended Proficiencies

RDG094 College Reading (3)

Core Requirements (27)

CIS120 Survey of Computer Information Systems (3)
CIS121 Microcomputer Operating System Fundamentals (3)

CIS130 Networking Essentials (3)
CIS150 Windows Server (3)
CIS152 Windows Network Infrastructure (3)
CIS153 Network Security (3)
CIS213 Linux Server (3)
CIS215 CISCO CCNA Routers (3)

Complete one of the following class options:

CIS219 Exchange Server 2003 (3)
CIS210 Cloud Computing (3)
CIS220 Security for Wireless Networks (3)

Optional Internship course (1):

BUS196 Applied Business Internship (1) (45-90 hour internship in related industry)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

CREATIVE ARTS

ENTERTAINMENT INDUSTRY TECHNOLOGY

ARTIST AND VENUE MANAGEMENT A.A.S.

Signal Peak Campus

Total Credits: 70

The Artist and Venue Management A.A.S. Degree prepares individuals for entry-level positions in the entertainment industry by providing an opportunity to gain a broad knowledge of business, entertainment law, marketing, management and the ability to manage entertainment facilities or performers.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) (Recommended)
OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3)
Or select a COM course, or an AGECE course.



Arts and Humanities (3)

EIT100 History of Rock n' Roll (3) (Recommended)
Or select an Art, Humanities, Literature, Music, Philosophy or
Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

PSY101 Introduction to Psychology (3) (Recommended) Or select a Social and Behavioral Science
course, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered
100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (47)

ACC100 Fundamentals of Accounting (3)
ACC121 Income Tax Fundamentals (3)
BUS100 Introduction to Business (3)
BUS122 Small Business Management (3)
BUS190 Applied Business Management (3)
CBA210 Web Development Tools (3)
EIT101 Introduction to Entertainment (3)
EIT120 Entertainment Law (3)
EIT130 Live Audio Production I (3)
EIT140 Lighting I (3)
EIT151 Digital Audio Workstation (3)
EIT203 Entertainment Capstone Project (2)
EIT221 Entertainment Marketing and Promotion (3)
EIT222 Artist Management (3)
EIT223 Events and Venue Management (3)
EIT296 Entertainment Internship (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading

Computer Competency (3):

AGB124 Microcomputers in Agriculture
CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course
(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 70 credits.

ARTIST AND VENUE MANAGEMENT CERTIFICATE

Signal Peak Campus

Total Credits: 35

The Artist and Venue Management Certificate prepares individuals for entry-level positions in the entertainment industry by providing an opportunity to gain a broad knowledge of business, entertainment law, marketing, management and the ability to manage entertainment facilities or performers.

Core Requirements (35)

ACC100 Fundamentals of Accounting (3)
ACC121 Income Tax Fundamentals (3)
BUS100 Introduction to Business (3)
BUS122 Small Business Management (3)
EIT100 History of Rock n' Roll (3)
EIT101 Introduction to Entertainment (3)
EIT120 Entertainment Law (3)
EIT203 Entertainment Capstone Project (2)
EIT221 Entertainment Marketing and Promotion (3)
EIT222 Artist Management (3)
EIT223 Events and Venue Management (3)
EIT296 Entertainment Internship (3)

Other Requirements

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn at least one-third of the Certificate credits from CAC.





LIVE AUDIO AND LIGHTING A.A.S.

Signal Peak Campus

Total Credits: 67

The Live Audio and Lighting A.A.S. Degree prepares individuals for entry-level positions in the entertainment industry. It provides skills necessary to work with touring entertainers and audio/lighting companies in the set up operation of live concert productions.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) (Recommended)

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3)

Or select a COM course, or an AGECE course.

Arts and Humanities (3)

EIT100 History of Rock n' Roll (3) (Recommended)

Or select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

PSY101 Introduction to Psychology (3) (Recommended)

Or select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (44)

BUS122 Small Business Management (3)

CBA210 Web Development Tools (3)

EIT101 Introduction to Entertainment (3)

EIT120 Entertainment Law (3)

EIT130 Live Audio Production I (3)

EIT140 Lighting I (3)

EIT151 Digital Audio Workstation (3)

EIT203 Entertainment Capstone Project (2)

EIT221 Entertainment Marketing and Promotion (3)

EIT231 Live Audio Production II (3)

EIT232 Equipment Maintenance (3)

EIT241 Concert Lighting (3)

EIT242 Rigging (3)

EIT296 Entertainment Internship (3)

ELC122 Direct Current and Alternating Current Circuit Analysis (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading

Computer Competency (3):

AGB124 Microcomputers in Agriculture

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course
(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 67 credits.

LIVE AUDIO AND LIGHTING CERTIFICATE

Signal Peak Campus

Total Credits: 35

The Live Audio and Lighting Certificate prepares individuals for entry-level positions in the entertainment industry. It provides skills necessary to work with touring entertainers and audio/lighting companies in the set up operation of live concert productions.

Recommended Proficiencies

RDG094 College Reading (3)

Core Requirements (35)

EIT100 History of Rock 'n Roll (3)

EIT101 Introduction to Entertainment (3)

EIT130 Live Audio Production I (3)

EIT140 Introduction to Lighting (3)

EIT203 Entertainment Capstone Project (2)

EIT221 Entertainment Marketing and Promotion (3)

EIT231 Live Audio Production II (3)

EIT232 Equipment Maintenance (3)

EIT241 Concert Lighting (3)



DEGREES AND CERTIFICATES

EIT242 Rigging (3)
 EIT296 Entertainment Internship (3)
 ELC122 Direct Current and Alternating Current Circuit Analysis (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

POPULAR MUSIC PERFORMANCE

A.A.S.

Signal Peak Campus

Total Credits: 64



The Popular Music Performance A.A.S. Degree prepares individuals for entry-level positions in the entertainment industry by providing an opportunity to gain a broad knowledge of skills needed for live songwriting, all aspects of live pop music performance and recording.

Prerequisite

The soloist or group must perform a live audition for the coordinator of the Entertainment Industry Technology program.



General Education Requirements (19-23)

Written Communications (3)


ENG101 English Composition III (3)   (Recommended)
 OR

ENG121 Applied Technical Writing (3)



Oral Communications (3)

COM100 Fundamentals of Human Communication (3)  
 Or select a COM course, or an AGECE course.

Arts and Humanities (3)

EIT100 History of Rock n' Roll (3)  (Recommended)
 Or select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

PSY101 Introduction to Psychology   (Recommended)
 Or select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (43.5)

BUS122 Small Business Management (3)

CIS112 Web Page Design Fundamentals (3)

EIT101 Introduction to Entertainment (3)

EIT120 Entertainment Law (3)

EIT130 Live Audio Production I (3)

EIT140 Lighting I (3)

EIT151 Digital Audio Workstation (3)

EIT170 Performance Skills (1)

(Must enroll four (4) times for credit)

EIT171 Songwriting I (2)

EIT203 Entertainment Capstone Project (2)

EIT221 Entertainment Marketing and Promotion (3)

EIT222 Artist Management (3)

EIT272 Songwriting II (2)

ENG200 Creative Writing (3)

MTC100 Fundamentals of Music (3)

MTC101 Aural Fundamentals (.5)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS112 Web Page Design Fundamentals (3)

(Recommended, also fulfills Core requirement)

OR

AGB124 Microcomputers in Agriculture

OR

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course
 (Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64 credits.



POPULAR MUSIC PERFORMANCE CERTIFICATE

Signal Peak Campus

Total Credits: 35.5

The Popular Music Performance Certificate prepares individuals for entry-level positions in the music entertainment industry by providing an opportunity to gain a broad knowledge of skills needed for song writing and all aspects of live popular music performance and recording.

Prerequisite

The soloist or group must perform a live audition for the coordinator of the Entertainment Industry Technology program. Program acceptance is based on approval.

Recommended Proficiencies

RDG094 College Reading

Core Requirements (35.5)

- EIT100 History of Rock n' Roll (3)
- EIT101 Introduction to Entertainment (3)
- EIT120 Entertainment Law (3)
- EIT130 Live Audio Production I (3)
- EIT140 Introduction to Lighting (3)
- EIT151 Digital Audio Workstation (3)
- EIT170 Performance Skills (1)
(Must enroll two (2) times for credit)
- EIT171 Songwriting I (2)
- EIT203 Entertainment Capstone Project (2)
- EIT221 Entertainment Marketing and Promotion (3)
- EIT222 Artist Management (3)
- EIT272 Songwriting II (2)
- MTC100 Music Fundamentals (3)
- MTC101 Aural Fundamentals (.5)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

RECORDING ENGINEERING A.A.S.

Signal Peak Campus

Total Credits: 67.5

The Recording Engineering A.A.S. Degree prepares individuals for entry-level positions in the entertainment industry by providing an opportunity to gain a broad knowledge of creating a home recording studio or a professional multi-track studio. Skills include recording,

production, editing, and arranging various types of audio recordings.

Recommended Proficiencies

RDG094 College Reading

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) (Recommended)
OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3) (Recommended)
Or select a COM course, or an AGEC course.

Arts and Humanities (3)

EIT100 History of Rock n' Roll (3) (Recommended)
Or select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGEC course.

Social and Behavioral Sciences (3)

PSY101 Introduction to Psychology (3) (Recommended)
Or select a Social and Behavioral Science course, or an AGEC course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered 100 or above, or an AGEC Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (44.5)

- BUS122 Small Business Management (3)
- CBA210 Web Development Tools (3)
- EIT101 Introduction to Entertainment (3)
- EIT120 Entertainment Law (3)
- EIT130 Live Audio Production I (3)
- EIT151 Digital Audio Workstation (3)
- EIT153 Recording Engineering I (3)
- EIT203 Entertainment Capstone Project (2)
- EIT221 Entertainment Marketing and Promotion (3)
- EIT231 Live Audio Production II (3)
- EIT232 Equipment Maintenance (3)
- EIT254 Recording Engineering II (3)
- EIT255 Recording Engineering III (3)
- EIT296 Entertainment Internship (3)
- MTC100 Fundamentals of Music (3)
- MTC101 Aural Fundamentals (.5)



Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course

(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 67.5 credits.

RECORDING ENGINEERING CERTIFICATE

Signal Peak Campus


Total Credits: 35

The Recording Engineering Certificate prepares individuals for entry-level positions in the entertainment industry by providing an opportunity to gain a broad knowledge of creating a home recording studio or a professional multi-track studio. Skills include recording, production, editing and arranging various types of audio recordings.

Recommended Proficiencies

RDG094 College Reading 

Core Requirements (35)

- EIT100 History of Rock n' Roll (3) 
- EIT101 Introduction to Entertainment (3)
- EIT120 Entertainment Law (3)
- EIT130 Live Audio Production I (3)
- EIT151 Digital Audio Workstation (3)
- EIT153 Recording Engineering I (3)
- EIT203 Entertainment Capstone Project (2)
- EIT231 Live Audio Production II (3)
- EIT232 Equipment Maintenance (3)
- EIT254 Recording Engineering II (3)
- EIT255 Recording Engineering III (3)
- EIT296 Entertainment Internship (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of one-third of required Certificate credits from CAC.

FINE ARTS A.A.

Signal Peak Campus

Total Credits: 60-64

The Fine Arts A.A. Degree prepares students to transfer to a university B.A., B.F.A. or Bachelors of Teaching in the Arts degree program. Those seeking Art History or Museum Studies as majors may need additional foreign language courses.

General Education Requirements AGEC-A (35-36)

Written Communications (6)

ENG101 English Composition III (3)  

ENG102 English Composition IV (3)  

Oral Communications (3)

Select an AGECE course.

For the following two categories, for each category select courses from different disciplines to total 15 credits.

Arts & Humanities (6-9)

Arts (3)

Fulfilled by the Studio Art Core Requirements.

Humanities (3)

Select an AGECE course.


Social and Behavioral Sciences (6-9)

Select AGECE courses from different disciplines.

Physical and Biological Sciences (8)

Select AGECE courses with a laboratory component.

Mathematics (3-4)

MAT141 College Mathematics, Standard (4)  or higher



Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor, and see the Transfer Guides at <http://aztransfer.com/college/>





Special Awareness Requirements (0-9)

Select courses from the AGEC list to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender) (*Fulfilled by the Core Requirements*)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness (*Fulfilled by the Core Requirements*)

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives may also be used to satisfy requirements in the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (30)

ART101 Two Dimensional Design (3) 
 ART102 Three Dimensional Design (3) 
 ART107 Drawing I (3)
 ART109 Color Theory (3)
 ART207 Art History I (3) 
 ART208 Art History II (3) 
 MSC205 Portfolio Preparation (3)
 Transferable Studio Electives (9)

Fulfillment of the Core Requirements may also fulfill the AGEC-A Arts Requirements.

Electives

Select approved elective courses which transfer as "Elective or better" to at least two of the three AZ public universities to complete the required A.A. Degree credits.

Other Requirements (3)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture
 CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course
 (Consult the CEG.)

Other A.A. Degree Requirements

Some A.A. Degrees require up to 16 credits of a Second Language to demonstrate proficiency. Many four-year degrees require either a second semester or fourth semester level of a second language and strongly encourage students to complete this requirement at the community college prior to transfer.

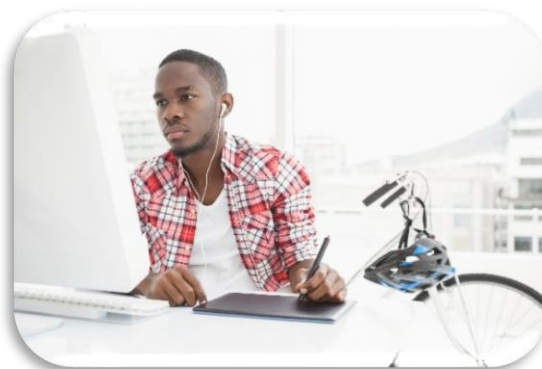
Check your university catalog, Transfer Guides at <http://aztransfer.com/college/> or meet with an academic advisor. Students may demonstrate proficiency by completion of coursework and/or a proficiency test.

Students undecided about their major are encouraged to complete a fourth semester of a second language. CAC offers Spanish, French, Sign Language or other Foreign Languages and Literatures. Contact an academic advisor for assistance.

Students must earn a grade of "C" or better in each A.A. degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGEC-A requirements.

This A.A. Degree requires 60-64 semester credits.



GRAPHIC DESIGN A.A.S.

Signal Peak Campus

Total Credits: 65

The Graphic Design AAS Degree provides students with the creative, technical and visual communication skills required for employment in entry-level positions in an exciting and rapidly growing industry. Students will be equipped with the knowledge and skills to be successful in a variety of design positions: advertising agencies; retail, corporate and in-house design departments; newspaper, magazine and book publishing environments; freelance



DEGREES AND CERTIFICATES

design, illustration and web design. The program also prepares students for entry into a 4-year college or degree program.

Recommended Proficiencies

RDG094 College Reading (3)

General Education Requirements (25)

Written Communications (3)

ENG101 English Composition III (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

Arts and Humanities (6)

Select two of the following:

ART100 Art Appreciation (3)

ART207 Art History I (3)

ART208 Art History II (3)

Social and Behavioral Sciences (3)

Select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (39)

ART101 Two-Dimensional Design (3)

ART102 Three-Dimensional Design (3)

ART107 Drawing I (3)

ART109 Color Theory (3)

MSC101 Introduction to Mass Communication (3)

MSC120 Graphic Design and Adobe InDesign (3)

MSC122 Introduction to Web Design (3)

MSC123 Designing with Type (3)

MSC125 Introduction to Illustrator (3) 0

MSC130 Digital Photography and Photoshop (3)

MSC205 Portfolio Preparation (3)

MSC220 Advanced Graphic Design (3)

MSC230 Advanced Digital Photography and Adobe Photoshop (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading

Computer Competency (3):

AGB124 Microcomputers in Agriculture

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course
(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 65 credits.

CULINARY ARTS

BAKING AND PASTRY CERTIFICATE

Maricopa and Signal Peak Campuses

Total Credits: 18

This Certificate is designed to prepare students for employment in such establishments as retail bakeries, fine dining restaurants and hotels, upscale pastry and bake shops, commercial baking and entrepreneurship. The core courses will help students develop a solid foundation in basic baking skills. The student may tailor the degree to meet individual goals in areas such as bread baking, cake decorating, wedding cake production, and/or chocolate and sugar show pieces. Students pursuing an Associate of Applied Science (AAS) Culinary Arts Degree may specialize in Baking and Pastry. All courses in the Baking and Pastry Certificate are requirements for the Culinary Arts A.A.S. Degree. High school diploma or GED are recommended.

Prerequisites:

RDG094 and MAT082 or equivalent placement test scores.

Recommended Proficiencies:

High school diploma or GED recommended.

Core Requirements (14)

NTR105 ServSafe Certification (1)

OR

CUL105 Food Safety Foundations (1)



CUL160 Baking and Pastry I (3)
CUL260 Baking and Pastry II (3)

NTR223 Food Service Management (3)

OR

HRM103 Managing Food Service Operations (3)

NTR104 Nutrition (3) **AND** NTR104L Personal Wellness Lab (1)

OR

NTR104 Nutrition (3) **AND** (1) Culinary Arts elective

OR

CUL268 Nutrition and Special Needs Baking (3) **AND** CUL (1) elective

OR

NTR141 Nutrition and Wellness (4)

(NTR141 may also fulfill Physical and Biological Sciences Requirement for Culinary A.A.S. Degree)

Electives: Choose 4 or more

CUL161 Cake Decorating (1)
CUL162 Cake, Fillings and Frostings (1)
CUL261 Advanced Cake Decorating (1)
CUL262 Wedding Cakes (1)
CUL263 Everything Chocolate (1)
CUL264 Confectionary Show Pieces (1)
CUL265 Artisan and Specialty Breads (1)
CUL266 Advanced Pastry (1)

Other Requirements

Reading Competency: RDG094 College Reading

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of one-third of required Certificate credits from CAC.



CULINARY ARTS A.A.S.

Maricopa and Signal Peak Campuses

Total Credits: 65

The Culinary Arts Associate of Applied Science (AAS) Degree provides training in basic and advanced culinary skills and includes a practicum experience within a commercial kitchen for application of skills and knowledge. Concentrations include Culinary Arts, Baking and Pastry, Nutrition and Dietetics, and Business/Hospitality specialties. Students are prepared for positions as professional chefs, cooks, pastry chefs, and entry-level management or for advancement in the food service industry.

Recommended Proficiencies

College-level math and English Placement test scores.
High school diploma or GED recommended.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (4)

NTR141 Nutrition and Wellness (4) *(Also fulfills core requirement)*

Or select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (27)

CUL125 Sustainable Food Practices (1)
CUL130 Culinary Principles and Applications I (3)
CUL160 Baking and Pastry I (3)
CUL170 Dining and Beverage Operations (2)
CUL185 Catering Operations (2)



DEGREES AND CERTIFICATES

CUL230 Culinary Principles and Applications II (3)
CUL260 Baking and Pastry II (3)
CUL290 Commercial Cooking Practicum (2)
CUL105 Food Safety Foundations (1)

OR

NTR105 ServSafe Certification (1)

Select one of the following (4):

NTR104 Nutrition (3) **AND**

NTR104L Personal Wellness Lab (1)


OR

NTR104 Nutrition (3) **AND** CUL elective (1)

OR

CUL268 Nutrition and Special Needs Baking (3) **AND** CUL elective (1)

OR

NTR141 Nutrition and Wellness (4) 

(NTR141 also fulfills Physical and Biological Sciences)

If the Physical and Biological Sciences requirement is fulfilled by NTR141, select four (4) additional credits.

Select one of the following (3):

NTR223 Food Service Management (3)

OR

HRM103 Managing Food Service Operations (3)

Electives (15 - 19)

Students may choose electives from all four categories below to meet 65 credit Degree requirement. Many of the electives are part of the Baking and Pastry Certificate, the Culinary Arts Certificate and the Hotel and Restaurant Management Certificate. Careful selection of electives makes it possible for a student to earn multiple certificates while earning an AAS degree. If NTR141 is chosen from the above lists, select 19 elective credits.

Culinary Arts Electives

CUL110 Asian Cuisine (1)
CUL112 Italian Cuisine (1)
CUL114 Mexican and Latin American Cuisine (1)
CUL116 French Cuisine (1)
CUL121 Culinary Concepts (1)
CUL205 HACCP Principles (1)
CUL292 Study Abroad: Italian Cuisine and Culture (4)
NTR142 Applied Food Science (3)

Baking and Pastry Electives

CUL161 Cake Decorating (1)
CUL162 Cake, Fillings and Frostings (1)
CUL261 Advanced Cake Decorating (1)
CUL262 Wedding Cakes (1)
CUL263 Everything Chocolate (1)
CUL264 Confectionary Show Pieces (1)

CUL265 Artisan Specialty Breads (1)
CUL266 Advanced Pastry (1)
CUL268 Nutrition and Special Needs Baking (3)

Nutrition and Dietetics Electives

NTR135 Healthy Weight for Adults (1)
NTR191 Nutrition Counseling Skill Development (3)
NTR232A Food and Culture (1)
NTR240 Clinical Nutrition (3)

Business/Hospitality Electives

ACC100 Fundamentals of Accounting (3)
BUS100 Introduction to Business (3)
BUS122 Small Business Management (3)
BUS123 Business Relations (3)
BUS180 Introduction to Marketing (3)
BUS201 Legal Environment of Business (3)
BUS250 Business Entrepreneurship (3)
HRM100 Introduction to Hospitality (3)
HRM101 Facilities Management (3)
HRM102 Management of Guest Services (3)
HRM145 Convention and Meeting Management (3)
HRM252 Managing Hospitality Human Resources (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture
CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course.
(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 65 credits.

CULINARY ARTS CERTIFICATE I

Maricopa and Signal Peak Campuses

Total Credits: 16 - 17

Culinary Arts Certificate I prepares students to become entry-level culinary professionals within a commercial food service operation. Credits earned may be applied toward the Culinary Arts Certificate II and the Culinary Arts A.A.S. Degree.



Recommended Proficiencies

College level math and English Placement test scores.
High school diploma or GED recommended.

Core Requirements (16)

CUL130 Culinary Principles and Applications I (3)
CUL160 Baking and Pastry I (3)
CUL170 Dining and Beverage Operations (2)

CUL105 Food Safety Foundations (1)

OR

NTR105 ServSafe Certification (1)

NTR223 Food Service Management (3)

OR

HRM103 Managing Food Service Operations (3)

Select one of the following (4):


NTR104 Nutrition (3) **AND**

NTR104L Personal Wellness Lab (1)

OR

NTR104 Nutrition (3) **AND** CUL elective (1)

OR

NTR141 Nutrition and Wellness (4) 

OR

CUL268 Nutrition and Special Needs Baking (3) **AND**
CUL elective (1)

Optional Internship course (1):

BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

CULINARY ARTS CERTIFICATE II

Maricopa and Signal Peak Campuses

Total Credits: 25 - 26

The Culinary Arts Certificate II provides training in basic and advanced culinary skills, concepts related to food sustainability, and culinary math and logistical skills necessary for planning events. Courses within this certificate are also requirements for the Culinary Arts AAS degree. This Certificate prepares students for entry-level positions as cooks, chefs or food service managers.

Recommended Proficiencies

College level math and English Placement test scores.
High school diploma or GED recommended.

Required Courses (25)

CUL125 Sustainable Food Practices (1)

CUL130 Culinary Principles and Applications I (3)

CUL160 Baking and Pastry I (3)

CUL170 Dining and Beverage Operations (2)

CUL185 Catering Operations (2)

CUL230 Culinary Principles and Applications II (3)

CUL260 Baking and Pastry II (3)

CUL105 Food Safety Foundations (1)

OR

NTR105 ServSafe Certification (1)

NTR223 Food Service Management (3)

OR

HRM103 Managing Food Service Operations (3)

Select one of the following (4):


NTR104 Nutrition (3) **AND**

NTR104L Personal Wellness Lab (1)

OR

NTR104 Nutrition (3) **AND** CUL elective (1)

OR

NTR141 Nutrition and Wellness (4) 

OR

CUL268 Nutrition and Special Needs Baking (3) **AND**
CUL elective (1)

Optional Internship course (1):

BUS196 Applied Business Internship (1)
(45-90 hour internship in related industry)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.



DIESEL/HEAVY EQUIPMENT

DIESEL AND HEAVY EQUIPMENT TECHNOLOGY A.A.S.

Signal Peak Campus

Total Credits: 73

This Degree prepares students for employment as diesel and heavy equipment technicians with an array of career opportunities within the industry. A typical graduate will seek employment with an equipment dealer, equipment rental company, or a heavy highway construction company. Students receive training applicable for serving and repairing all types of diesel equipment.


The Diesel and Heavy Equipment Technology Degree is accredited by the Associated Equipment Distributors Foundation (AEDF) located at 600 22nd Street Suite 220 Oak Brook, IL 60523; 630-574-0650; <http://www.aedfoundation.org/>

Prerequisites

Students must be admitted to D&HET Cohort and hold current and valid driver license, or instructor consent.

General Education Requirements (19)

Written Communications (3)

ENG101 English Composition III (3)  
ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3)

BUS101 Business Mathematics (3)


OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (44)

DIE110 Introduction to Diesel Engines and Fuel Systems (3)
DIE111 Introduction to Electricity/Electronics (3)
DIE112 Introduction to Mobile Hydraulics (3)
DIE113 Introduction to Power Trains (3)
DIE114 Introduction to Power Train Repair and Diagnostics (4)
DIE115 Introduction to Diesel Engine Repair and Diagnostics (4)
DIE118 Computer Systems for Equipment Technicians (3)
DIE210 Advanced Diesel Engines and Fuel Systems (5)
DIE211 Advanced Electrical/Electronic Systems (3)
DIE212 Advanced Mobile Hydraulics (3)
DIE214 Advanced Power Train Repair and Diagnostics (5)
HEO121 Heavy Equipment Operations I (5)

Electives: Select three of the following courses (9)


AGB124 Microcomputers in Agriculture (3)
CIS120 Survey of Computer Information Systems (3) 
DIE116 Introduction to Diesel Technology (3)
DIE117 Workplace Success Principles, Practices, and Strategies (3)
DIE222 Mobile Refrigeration (3)
WLD Any Welding course (3)

DIE196 Diesel Equipment Technology and HEO Internship I (3)
AND
DIE296 Diesel Equipment Technology and HEO Internship II (3)

Other Requirements (1-4)

PAC or DAN Course (1)
Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture
OR
CIS110 Fundamentals of Computer Literacy or higher (Select CIS120  from Electives)
OR
Transferable Computer Competency course (Consult the CEG.)



Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 73 credits.



DIESEL AND HEAVY EQUIPMENT TECHNOLOGY CERTIFICATE

Signal Peak Campus

Total Credits: 53

The Diesel and Heavy Equipment Technology Certificate prepares students for employment as diesel and heavy equipment technicians with an array of career opportunities within the industry. A typical graduate will seek employment with an equipment dealer, equipment rental company, or a highway heavy construction company. Students receive training applicable for servicing and repairing all types of diesel equipment.

The Diesel and Heavy Equipment Technology Certificate is accredited by the Associated Equipment Distributors Foundation (AEDF) located at 600 22nd Street Suite 220 Oak Brook, IL 60523; 630-574-0650; <http://www.aedfoundation.org/>

Prerequisites

Students must be admitted to D&HET Cohort; current and valid driver license; or instructor consent.

Core Requirements (44)

- DIE110 Introduction to Diesel Engines & Fuel Systems (3)
- DIE111 Introduction to Electricity/Electronics (3)
- DIE112 Introduction to Mobile Hydraulics (3)
- DIE113 Introduction to Power Trains (3)
- DIE114 Introduction to Power Train Repair & Diagnostics (4)

- DIE115 Introduction to Diesel Engine Repair and Diagnostics (4)
- DIE118 Computer Systems for Equipment Technicians (3)
- DIE210 Advanced Diesel Engines and Fuel Systems (5)
- DIE211 Advanced Electrical/Electronic Systems (3)
- DIE212 Advanced Mobile Hydraulics (3)
- DIE214 Advanced Power Train Repair and Diagnostics (5)
- HEO121 Heavy Equipment Operations I (5)

Electives: Select three courses (9)

- AGB124 Microcomputers in Agriculture (3)
- CIS120 Survey of Computer Information Systems (3)
- DIE116 Introduction to Diesel Technology (3)
- DIE117 Workplace Success Principles, Practices, and Strategies (3)
- DIE222 Mobile Refrigeration (3)
- ENG121 Applied Technical Writing (3)
- WLD Any Welding course (3)
- DIE196 Diesel Equipment Technology and HEO Equipment Internship I (3)

AND

- DIE296 Diesel Equipment Technology and HEO Equipment Internship II (3)

Other Requirements

Reading Competency: RDG094 College Reading

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

HEAVY EQUIPMENT OPERATOR A.A.S.

Signal Peak Campus

Total Credits: 68

The Heavy Equipment Operator A.A.S. degree prepares students to operate, maintain and service heavy equipment and layout construction projects.

The Heavy Equipment Operator Degree is accredited by the National Center for Construction Education and Research (NCCER), 13614 Progress Boulevard, Alachua, FL 32615; 888-622-3720; <http://www.nccer.org>

General Education Requirements (19-23)

Written Communications (3)

- ENG101 English Composition III (3)

OR

- ENG121 Applied Technical Writing (3)



DEGREES AND CERTIFICATES

Oral Communications (3)

Select a COM course, or an AGECE course.


Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.


Social and Behavioral Sciences (3)

Select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (4)

AGS221 Soil Science (4) 

GLG Any Geology course (4)

PHY100 Physical Universe (4) 

Or select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (37)

CET125 Introduction to Earthmoving Methods and Operations (3)

CET221 Basic Surveying and Grade Staking (4)

HEO225 Preventive Maintenance (2)

HEO121 Heavy Equipment Operations I (5)

HEO122 Heavy Equipment Operations II (5)

HEO127 Heavy Equipment Reconditioning (4)

HEO128 Diesel Equipment Service and Repair (4)

HEO221 Advanced Heavy Equipment Operations III (5)

HEO222 Applied Heavy Equipment Construction (5)

Electives:

Select from the following courses (8):

HEO100 Introduction to Heavy Equipment (5)


HEO223 Commercial Driver License Preparation (3)

BUS Any Business course (3)

PEH102 First Aid/CPR (2)

WLD Any Welding course (3)

DIE222 Mobile Refrigeration (3)

COM202 Small Group Communication (3) 

DIE196 Diesel Equipment Technology and HEO Internship I (3)

DIE296 Diesel Equipment Technology and HEO Internship II (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)

CIS110 Fundamentals of Computer Literacy (3) or higher OR

Transferable Computer Competency course
(Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 68 credits.

HEAVY EQUIPMENT OPERATOR CERTIFICATE

Signal Peak Campus

Total Credits: 40

The Heavy Equipment Operator Certificate focuses on the operation, maintenance and service of heavy equipment, layout of construction projects, and supervisory duties in the field of Heavy Equipment Operators.

The Heavy Equipment Operator Certificate is accredited by the National Center for Construction Education and Research (NCCER), 13614 Progress Boulevard, Alachua, FL 32615; 888-622-3720; <http://www.nccer.org>

General Education Requirements (6)

Communications (3)

Select a COM course, or an AGECE course.

Mathematics (3-4)

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (23)

CET125 Intro to Earthmoving Methods & Operations (3)

CET221 Basic Surveying and Grade Staking (4)

HEO225 Preventive Maintenance (2)

HEO121 Heavy Equipment Operations I (5)

HEO122 Heavy Equipment Operations II (5)



Choose one of the following courses (4):

- HEO127 Heavy Equipment Reconditioning (4)
HEO128 Diesel Equipment Service and Repair (4)



Computer Competency (3)

Select one:

- CIS Any Computer Literacy course (3)
AGB124 Microcomputers in Agriculture (3)

Electives (8)

Select electives to meet 40 credit Certificate requirement.

- AGS221 Soil Science (4) 
GLG Any Geology course (4)
HEO100 Introduction to Heavy Equipment (5)
HEO223 Commercial Driver License Preparation (3)
HEO127 Heavy Equipment Reconditioning (4) (If not selected above)
HEO128 Diesel Equipment Service and Repair (4) (If not selected above)
HEO221 Advanced Heavy Equipment Operations III (5)
HEO222 Applied Heavy Equipment Construction (5)
MAT121 Intermediate Algebra, Standard (4) or higher
PHY100 Physical Universe (4) 
BUS Any Business course (3)
PEH102 First Aid/CPR (2)
WLD Any Welding course (3)
DIE222 Mobile Refrigeration (3)
COM202 Small Group Communication (3) (If not selected above)
DIE196 Diesel Equipment Technology & HEO Internship I (3)
DIE296 Diesel Equipment Technology & HEO Internship II (3)

Other CAC Requirements

Reading Competency: RDG094 College Reading 

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.



EDUCATION

EARLY CHILDHOOD EDUCATION

A.A. (AAECE)

Maricopa, San Tan, Signal Peak & Superstition Mountain Campuses

Total Credits: 60-64

The Associate of Arts in Early Childhood Education (AAECE) Degree is appropriate for students working in early childhood environments who want to increase their knowledge, practical and professional skills in the field, and for students who want to pursue advanced degrees in Early Childhood Education.





AGEC-A (35-36 Credits)

The Arizona General Education Curriculum focused on the Arts (AGEC-A) is a 35 semester credit block that fulfills the lower division general education requirements of liberal arts majors (e.g., social science, fine arts, humanities). The AGECA requires a minimum of MAT141 or higher plus 32 credits. The AGEC block transfers to any Arizona public or tribal community college and to the three Arizona public universities.

General Education Requirements

For the following eight categories select the recommended AGECA course, or an AGECA course from the equivalent AGECA category:

Written Communications (6)

- ENG101 English Composition III (3)  
ENG102 English Composition IV (3)  

Oral Communications (3)

- COM263 Intercultural Communications (3)

Arts & Humanities (6)

- PHI112 World Religions (3)

Choose one the following:

- ART207 Art of the Western World I (3)
ART208 Art of the Western World II (3)
MHL100 Music Appreciation (3)

(All three courses also fulfill the Global/International/Historical Awareness requirement)




Social and Behavioral Sciences (6-9)

EDU221 Introduction to Education (3)
 EDU222 Introduction to Special Education (3)
 ECE276 Child Development (3)
(Also fulfills Core Requirement)

Biological/Life Lab Sciences (4)

Select one AGEC course:

AGS101 World of Plants (4) 
 AGS130 Plant Science (4)
 BIO100 Biology Concepts (4)
 BIO181 General Biology I (4)
 BIO182 General Biology II (4)
 BIO201 Human Anatomy and Physiology (4)
 BIO205 Microbiology (4)
 ENV101 Environmental Science (4)

Physical Lab Sciences (4)

Select one course:

CHM130 Fundamental Chemistry (4)
 CHM151 General Chemistry I (4)
 CHM152 General Chemistry II (4)
 CHM230 Fundamental Organic Chemistry (4)
 CHM235 Organic Chemistry (4)
 GLG101 Physical Geology (4)
 GLG102 Historical Geology (4)
 GLG110 Geological Hazards and Disasters (4)
 PHY100 Physical Universe (4)
 PHY201 College Physics I (4)
 PHY202 College Physics II (4)
 PHY261 University Physics I (4)
 PHY262 University Physics II (4)

Mathematics (3-4)

MAT141 College Mathematics, Standard (4) or higher

Special Awareness Requirements (0-9)

Intensive Writing/Critical Inquiry (3)

LIT291 Children's Literature for Educators (3)

Cultural Awareness (Ethnic/Race/Gender) (3)

COM263 Intercultural Communications (3)
(Also fulfills Oral Communication requirement)

Global/International/Historical Awareness (3)

Choose one the following:

ART207 Art of the Western World I (3)
 ART208 Art of the Western World II (3)
 MHL100 Music Appreciation (3)

(All three also fulfill the Humanities requirement)

Core Requirements for Early Childhood Education (26)

ECE105 Foundations of Early Childhood Education (2)
 ECE110 Health, Safety and Nutrition (3)
 ECE116 Guiding and Observing Children (3)
 ECE229 Early Childhood Practicum (3)
 ECE254 Emergent Language and Literacy (3)
 ECE271 Creating Early Childhood Environments (3)
 ECE276 Child Development (3)
(Also fulfills AGEC Social and Behavioral Sciences requirement)
 ECE278 Effective Curriculum Design (3)
 ECE283 Valuing Families and Diversity (3)

Other Requirements (3)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS120 Survey of Computer Information Systems
 Students must earn a grade of "C" or better in each AA degree required course.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC which includes the AGEC-A requirements.

This A.A. Degree requires 60-64 credits.

EARLY CHILDHOOD EDUCATION A.A.S.

Maricopa, San Tan, Signal Peak & Superstition Mountain Campuses

Total Credits: 64

The Early Childhood Education A.A.S. prepares competent early childhood professionals for working with young children and families. The degree prepares students by providing opportunities to gain specialized knowledge and implement best practices in early childhood settings. This Degree is accredited by the National Association for the Education of Young Children (NAEYC) Commission on Early Childhood Associate Degree Accreditation.



The A.A.S. Early Childhood Education/Preschool Degree is accredited by the National Association for the Education of Young Children (NAEYC) Commission on Early Childhood Associate Degree Accreditation located at 1313 L. Street NW, Suite 500, Washington, DC 20005-4101. 202-350-8862. www.naeyc.org

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

ECE276 Child Development (3) 

(Also fulfills Core Requirement)

Or select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (17)

ECE 105 Foundations of Early Childhood Education (2)

ECE 110 Health, Safety, and Nutrition (3)

ECE 116 Guiding and Observing Children (3)

ECE 229 Early Childhood Practicum (3)

ECE 276 Child Development (3)

(Also fulfills Social and Behavioral Requirement)

ECE 283 Valuing Families and Diversity (3)

Specialization Requirements (18)

ECE 124 Active Learning in Math and Science (3)

ECE 212 Creative Expressions for Young Children (3)

ECE 254 Emergent Language and Literacy (3)

ECE 271 Creating Early Childhood Environments (3)

ECE 278 Effective Curriculum Design for Teachers of

Young Children (3)

ECE 280 Inclusion of Children with Special Needs (3)

Electives (2-6)

Select electives 100 level or above to meet the 64 credit requirement.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS120 Survey of Computer Information Systems

Students must earn a grade of “C” or better in all Core Requirement courses and all Specialization Requirement courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64 credits.



EARLY CHILDHOOD EDUCATION FAMILY CHILDCARE CERTIFICATE

Signal Peak Campus

Total Credits: 29

The Early Childhood Education Family Childcare Certificate prepares competent early childhood professionals for working with young children and families in home settings. The certificate prepares students by providing opportunities to gain broad knowledge and practice application of skills.



Core Requirements (17)

- ECE110 Health, Safety, and Nutrition (3)
- ECE105 Foundations of Early Childhood Education (2)
- ECE116 Guiding and Observing Children (3)
- ECE229 Early Childhood Practicum (3)
- ECE276 Child Development (3)
- ECE283 Valuing Families and Diversity (3)

Specialization Requirements for Family Childcare (12)

- ECE255 Communications for Family Childcare (3)
- ECE257 The Business of Family Childcare (3)
- ECE272 Family Childcare Environments (3)
- ECE279 Curriculum for Family Childcare (3)

Other Requirements

Students must earn a grade of "C" or better in all Core Requirement courses and all Specialization Requirement courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

EARLY CHILDHOOD EDUCATION MANAGEMENT CERTIFICATE

Signal Peak Campus

Total Credits: 29

The Early Childhood Education Management Certificate prepares competent early childhood professionals for working with young children and families in early childhood settings. The certificate prepares students for administrative positions by providing opportunities to gain broad knowledge and practice application of skills.

Recommended Proficiencies

- RDG094 College Reading (3)

Core Requirements (17)

- ECE 105 Foundations of Early Childhood Education (2)
- ECE 110 Health, Safety, and Nutrition (3)
- ECE 116 Guiding and Observing Children (3)
- ECE 229 Early Childhood Practicum (3)
- ECE 276 Child Development (3)
- ECE 283 Valuing Families and Diversity (3)

Specialization Requirements (12)

- ECE221 ECE Program Financial Management (3)
- ECE222 Managing and Evaluating ECE Programs (3)
- ECE223 Planning and Promoting an ECE Program (3)
- ECE224 Supervision in Early Childhood Programs (3)

Other Requirements

Students must earn a grade of "C" or better in all Core Requirement courses and all Specialization Requirement courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

EARLY CHILDHOOD EDUCATION PRESCHOOL CERTIFICATE

Signal Peak Campus

Total Credits: 26

The Early Childhood Education Preschool Certificate prepares competent early childhood professionals for working with young children and families in early childhood settings. The certificate prepares students for entry level positions by providing opportunities to gain broad knowledge and practice application of skills.

Core Requirements (17)

- ECE 105 Foundations of Early Childhood Education (2)
- ECE 110 Health, Safety, and Nutrition (3)
- ECE 116 Guiding and Observing Children (3)
- ECE 229 Early Childhood Practicum (3)
- ECE 276 Child Development (3)
- ECE 283 Valuing Families and Diversity (3)

Specialization Requirements (9)

- ECE 271 Creating Early Childhood Environments (3)
- ECE 278 Effective Curriculum Design for Teachers of Young Children (3)
- ECE 280 Inclusion of Children with Special Needs (3)

Students must earn a grade of "C" or better in all Core Requirement courses and all Specialization Requirement courses.



Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

EARLY CHILDHOOD EDUCATION INFANT-TODDLER A.A.S.

**Maricopa, San Tan, Signal Peak &
Superstition Mountain Campuses**

Total Credits: 64

The Early Childhood Education Infant Toddler A.A.S. Degree provides solid foundational knowledge, field experiences and common skills and strategies that prepare students for multiple roles in the Infant Toddler field.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) 
ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (17)

ECE105 Foundations of Early Childhood Education (2)

ECE110 Health, Safety and Nutrition (3)

ECE116 Guiding and Observing Children (3)

ECE229 Early Childhood Practicum (3)

ECE276 Child Development (3)

(Also fulfills Social and Behavioral Requirement)

ECE283 Valuing Families and Diversity (3)

Specialization Requirements (16)

ECE128A Environments for Infants and Toddlers (1)

ECE129B Observation Skills in the Infant and Toddler Program (1)

ECE129C Record Keeping Skills: Infant and Toddler Programs (1)

ECE183 Curriculum and Learning Materials for Infants (1)

ECE184 Curriculum and Learning Materials for Toddlers (1)

ECE226A Cognitive Development of Infants and Toddlers (1)

ECE226C Language Development of Infants and Toddlers (1)

ECE227B Guidance and Discipline of Infants and Toddlers (1)

ECE227C Enhancing Social Competency of Infants and Toddlers (1)

ECE228B Physical Development in Infancy and Toddlerhood (1)

ECE271 Creating Early Childhood Environments (3)

ECE280 Inclusion of Children with Special Needs (3)

Electives (8)

Select electives 100 level or above to meet the 64 credit requirement.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3)

Students must earn a grade of "C" or better in all Core Requirement courses and all Specialization Requirement courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64 credits.



EARLY CHILDHOOD EDUCATION INFANT-TODDLER CERTIFICATE

Signal Peak Campus

Total Credits: 30

The Early Childhood Education Infant Toddler Certificate prepares competent early childhood professionals for working with young children and families in early childhood settings. The certificate prepares students for entry level positions by providing opportunities to gain broad knowledge and practice application of skills.

Core Requirements (17)

- ECE105 Foundations of Early Childhood Education (2)
- ECE110 Health, Safety, and Nutrition (3)
- ECE116 Guiding and Observing Children (3)
- ECE229 Early Childhood Practicum (3)
- ECE276 Child Development (3)
- ECE283 Valuing Families and Diversity (3)

Specialization Requirements for Infant-Toddler (13)

- ECE128A Environments for Infants and Toddlers (1)
- ECE129B Observation Skills in the Infant and Toddler Program (1)
- ECE129C Record Keeping Skills: Infant and Toddler Programs (1)
- ECE183 Curriculum and Learning Materials for Infants (1)
- ECE184 Curriculum and Learning Materials for Toddlers (1)
- ECE226A Cognitive Development of Infants and Toddlers (1)
- ECE226C Language Development of Infants and Toddlers (1)
- ECE227B Guidance and Discipline of Infants and Toddlers (1)
- ECE227C Enhancing Social Competency of Infants and Toddlers (1)
- ECE228B Physical Development in Infancy and Toddlerhood (1)
- ECE280 Inclusion of Children with Special Needs (3)

Other Requirements

Students must earn a grade of "C" or better in all Core Requirement courses and all Specialization Requirement courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

ELEMENTARY EDUCATION A.A.E.E.

District-Wide

Total Credits: 63

The Associate of Arts in Elementary Education (A.A.E.E.) Degree is appropriate for students who require practical and professional skills and knowledge that can lead to upper division programs in elementary and special education, and prepares para-educators.

For a list of Common Courses associated with specific programs of study, go to the Common Course Matrix Archives and select the current year or the year you completed the course(s): <http://steeringcommittee.aztransfer.com/resources/ccm.html>.

AGEC courses are transferable to all three Arizona public universities provided students earn a grade of "C" or better. Contact an academic advisor for assistance.

Recommended Proficiencies

College level English, math and reading courses or placement test scores to demonstrate proficiency.

AGEC-A (35-36 Credits)

The Arizona General Education Curriculum focused on the Arts (AGEC-A) is a 35 semester credit block that fulfills the lower division general education requirements of liberal arts majors (e.g., social science, fine arts, humanities). The AGEC-A requires a minimum of MAT141 or higher plus 32 credits. The AGEC block transfers to any Arizona public or tribal community college and to the three Arizona public universities.

General Education Requirements

For the following eight categories select the recommended AGEC course, or an AGEC course from the equivalent AGEC category.

Written Communications (6)

- ENG101 English Composition III (3)  
- ENG102 English Composition IV (3)  

Oral Communications (3)

Select an AGEC course.

Students must choose coursework from more than one discipline for both the Arts and Humanities Category and the Social and Behavioral Sciences category.



Arts & Humanities (6-9)

Select a minimum of one Art (3) and one Humanities (3) AGECE course. Students may select up to 9 credits of coursework from two different prefixes to fulfill the Arts & Humanities Category.

Arts (3-6)

Select Art AGECE courses.

Humanities (3)

LIT291 Children's Literature for Educators (3)
(Also fulfills AGECE Intensive Writing Requirement)

Social and Behavioral Sciences (6)

HIS101 United States History I (3)
(Also fulfills AGECE Global Awareness Requirement)

Select any additional AGECE three (3) credit course from Social and Behavioral Sciences in a discipline other than HIS.

Biological/Life Lab Sciences (4)

Select one of the following AGECE courses:

AGS101 World of Plants (4)
AGS104 Agricultural Environmental Science (4)
AGS106 Entomology (4)
AGS221 Soil Science (4)
AGS240 Plant Biology (4)
BIO100 Biology Concepts (4)
BIO156 Human Biology for Allied Health (4)
BIO160 Introduction to Human Anatomy/Physiology (4)
BIO181 General Biology I (4)
BIO182 General Biology II (4)
BIO201 Human Anatomy and Physiology I (4)
BIO202 Human Anatomy and Physiology II (4)
BIO205 Microbiology (4)
NTR141 Nutrition and Wellness (4) (Consult the CEG.)

Physical Lab Sciences (4)

Select one AGECE course:

AST101 Survey of Astronomy (4)
CHM130 Fundamental Chemistry (4)
CHM151 General Chemistry I (4)
CHM152 General Chemistry II (4)
CHM235 General Organic Chemistry I (4)
CHM236 General Organic Chemistry II (4)
ENV101 Environmental Science (4) (Consult the CEG.)
GLG101 Physical Geology (4)
GLG102 Historical Geology (4)
GLG110 Geological Hazards and Disasters (4)
PHY100 Physical Universe (4)

PHY111 College Physics I (4)
PHY112 College Physics II (4)
PHY121 University Physics I: Mechanics (4)
PHY122 University Physics II: Electricity and Magnetism (4)

Mathematics (3-4 Credits)

MAT141 College Mathematics, Standard (4) or higher

Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor, and see the Transfer Guides at <http://aztransfer.com/college/>

Special Awareness Requirements (0-9)

Fulfilled as indicated below:

- Intensive Writing/Critical Inquiry (3)
LIT291 Children's Literature for Educators (3)
(Also fulfills AGECE Humanities Requirement)
- Cultural Awareness (Ethnic/Race/Gender) (3)
EDU230 Cultural Values in Education (3)
(Also fulfills Core Requirement)
- Global/International/Historical Awareness (3)
HIS101 United States History I (3)
(Also fulfills AGECE Social/Behavioral Sciences Requirement)

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, Core, Specialty Area or Transfer Electives, may also be used to satisfy the three (3) Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (21)

EDU221 Introduction to Education (3)
EDU222 Introduction to Special Education (3)
EDU228 Behavior Management (3)
EDU230 Cultural Values in Education (3) (Also fulfills AGECE Cultural Awareness Requirement)
EDU240 Provisional Structured English Immersion (SEI) (3)
MAT201 Math for Elementary Teachers I (3)
MAT202 Math for Elementary Teachers II (3)

Specialty Tracks (3 credits)

Select one of the three (3) Specialty Tracks below or select a combination of the courses below to total the 60-64 credits required to earn this A.A. Degree.



Upper Elementary Teaching majors select one or more:

- EDU225 Relationships in the Classroom (3)
- ENG205 Introduction to the Study of Language (3)

OR

Early Childhood K-3 Teaching majors select one:

- ECE271 Creating Early Childhood Environments (3)
- ECE 276 Child Development (3)
- ECE 278 Effective Curriculum Design (3)
- ECE 283 Valuing Families and Diversity (3)

OR

Special Education majors select one:

- EDU225 Relationships in the Classroom (3)
- ENG205 Introduction to the Study of Language (3)
- ECE271 Creating Early Childhood Environments (3)
- ECE 276 Child Development (3)
- ECE 278 Effective Curriculum Design (3)
- ECE280 Inclusion of Children with Special Needs (3)
- ECE 283 Valuing Families and Diversity (3)

Based on your major, review the specific A.A. Degree Requirements in the CAC catalog, consult an academic Advisor, and see the Transfer Guides at <http://aztransfer.com/college/>

Other Requirements (3)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)

OR

CIS120 Survey of Computer Information Systems (3) 

OR

Transferable computer competency course (Consult the CEG to determine transferability to the three state public universities).

Additional transferable electives to achieve a minimum of 60-64 credit hours for the A.A.E.E. Degree.

Students must earn a grade of "C" or better in each A.A.E.E. degree required course.

Students must earn: a minimum of 20 credits from CAC which includes the AGECA requirements.
The A.A.E.E. Degree requires a minimum of 60-64 credits.

EMERGENCY MEDICAL SERVICES

BASIC EMT CERTIFICATE

***Aravaipa & Superstition Mountain
Campuses and Corporate Center***

Total Credits: 9.5

Emergency Medical Technician Certificate of Completion for students who successfully complete EMS100 (CPR for Professionals) and EMS125 (Basic EMT).

Prerequisites

Ninth grade reading level, immunizations, CPR Certification-Healthcare Provider or Professional Rescuer

Core Requirements (9.5)

- EMS100 CPR for Professionals (.5)
- EMS125 Emergency Medical Technician (9)

Other Requirements

Students must receive a course completion card and be scheduled to take the National Registry of EMT exam.

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn at least one-third of the Certificate credits from CAC.





CRITICAL CARE FOR PARAMEDICS CERTIFICATE

Superstition Mountain Campus

Total Credits: 6.25

Advanced level education and training in Emergency Medical Services with specific training in Critical Care for nurses, physicians, and paramedics. The EMS275 course prepares students to function as a member of the critical care transport team. Students gain a higher level of understanding of patient care in the pre-hospital setting. EMS275 combined with Advanced Cardiac Life Support (ACLS) and the course prerequisites prepares student to apply for a completion certificate.

Prerequisites

- EMS272A Advanced Emergency Medical Technology/
Paramedic, Module I (17.5)
- EMS272B Advanced Emergency Medical Technology/
Paramedic Module II (8.5)
- EMS272C Advanced Emergency Medical Technology/
Paramedic, Module III (8.5)
- EMS272D Advanced Emergency Medical Technology/
Paramedic Practicum I (6)
- EMS272E Advanced Emergency Medical Technology/
Paramedic Practicum II (6)

OR

Certified Paramedic or Registered Nurse, or Physician or equivalent

AND all of the following

1. EMS100 CPR for Professionals (.5) or current Cardio Pulmonary Resuscitation (CPR) certification per American Heart Association standards or equivalent
2. Current Advanced Cardiac Life Support (ACLS) certification per American Heart Association standards, BTLS or PHTLS, PALS or PEPP;
3. Current ARC Certification or AHA BLS Health Care Provider, or NSC Green Cross Professional Rescuer or Division Chair consent.

Core Requirements (6.25)

- EMS275 Critical Care for Paramedics (CCEMTP) (5.25)
- EMS240 Advanced Cardiac Life Support (ACLS) (1)

Other Requirements

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn at least one-third of the Certificate credits from CAC.

PARAMEDICINE A.A.S.

Superstition Mountain Campus

Total Credits: 73.5

The Paramedicine A.A.S. Degree prepares students to work as paramedics with knowledge and skills required for emergency care, stabilization and immobilization of victims of illness and injury.

Prerequisites

- EMS100 CPR for Professionals (or current CPR certification) (.5)
- EMS125 Emergency Medical Technician (Arizona Department of Health Services EMT Certified for 1 year) (9)
- FSC129 Hazardous Materials Awareness/Operations (3)

The above three courses and their respective credits are not calculated into the total number of credits required for the A.A.S. Degree.

Recommended Proficiencies

Students must meet eligibility requirements established by the Arizona Department of Health Services, Bureau of EMS.

General Education Requirements (19-20)

Written Communications (3)

- ENG101 English Composition III (3)  

OR

- ENG121 Applied Technical Writing (3) (*Recommended*)



Oral Communications (3)

Select a COM course, or an AGECE course.



Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)


- PSY101 Introduction to Psychology (3)  

OR

- SOC101 Introduction to Sociology (3)  

Or select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (4)

- BIO160 Introduction to Human Anatomy and Physiology (4) 



Mathematics (3-4)

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (50.5)

Core courses must be completed with a grade of "C" or above.

EMS190 Pediatric Education for Pre-Hospital Provider-PALS (1)

EMS191 Neonatal Resuscitation Program-NRP (1)

EMS240 Advanced Cardiac Life Support-ACLS (1)

EMS245 Pre-Hospital Trauma Management-PHTLS (1)

EMS272A Advanced Emergency Medical Technology/Paramedic, Module I (17.5)

EMS272B Advanced Emergency Medical Technology/Paramedic, Module II (8.5)

EMS272C Advanced Emergency Medical Technology/Paramedic, Module III (8.5)

EMS272D Advanced Emergency Medical Technology/Paramedic Practicum I (6)

EMS272E Advanced Emergency Medical Technology/Paramedic Practicum II (6)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course (Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 73.5 credits.



FIRE SERVICES

DRIVER OPERATOR CERTIFICATE

Maricopa, San Tan, Signal Peak & Superstition Mountain Campuses

Total Credits: 8

The Fire Service Driver Operations Certificate is designed to provide advanced levels of training and experience as an emergency vehicle operator and to provide current fire service professionals with promotional opportunities.

Recommendations

1. Consult your department advisor.
2. Some courses require:
 - a. State of Arizona Fire Marshal Certification(s)
 - b. State of Arizona Department of Health Services Certification(s)
 - c. American Heart, Red Cross, or other certifying agency course completion in CPR
 - d. International Fire Service Accreditation testing for certification

Prerequisites

EMS125 Emergency Medical Technician (8)

FSC129 Hazardous Materials First Responder Operations (3)

FSC140 Firefighter I and II (13)

Complete the above OR Program Director consent.

Core Requirements (8)

FSC111 Driver Operator (2)

FSC117 Apparatus/Equipment (3)

FSC118 Hydraulics (3)

Other Requirements

Students must earn a grade of "C" or better in all certificate courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



FIRE OFFICER 1 CERTIFICATE

Maricopa, San Tan, Signal Peak & Superstition Mountain Campuses

Total Credits: 18

The Fire Officer I Certificate of Completion provides advanced levels of training and education to current fire service officers or experienced firefighters. This Certificate will provide the course of instruction required for National and International certifications.

Recommendations

1. Consult your department advisor.
2. Some courses require the following:
 - a. State of Arizona Fire Marshal Certification(s)
 - b. State of Arizona Department of Health Services Certification(s)
 - c. American Heart, Red Cross, or other certifying agency course completion in CPR
 - d. International Fire Service Accreditation testing for certification

Prerequisites

EMS125 Emergency Medical Technician (8)
 FSC129 Hazardous Materials First Responder Operations (3)
 FSC140 Firefighter I and II (13)
 FSC255 Fire Instructor I (3)
 Complete the above OR Program Director consent.

Core Requirements (18)

FSC108 Fundamentals of Fire Prevention (3)
 FSC119 Fire Service Ethics (3)
 FSC204 Firefighter Tactics and Strategy (3)
 FSC206 Health and Safety Officer (3)
 FSC208 Building Construction for the Fire Service (3)
 FSC220 Fire Officer Leadership (3)

Other Requirements

Students must earn a grade of "C" or better in all core courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

FIREFIGHTER OPERATIONS CERTIFICATE

Signal Peak Campus

Total Credits: 19

The Firefighter Operations Certificate is designed to prepare future firefighters for a career in the fire service. The program curriculum and course of instruction will provide the student with the knowledge and skills to effectively perform the essential functions of an entry level firefighter.

Upon successful completion of the fire academy (FSC 140), students sit for the State proctored written and practical skills examinations; successful students will be awarded State of Arizona certification through the Arizona Center for Fire Service Excellence Fire Service Accreditation.

Recommendations

1. Consult your department advisor.
2. Some courses require:
 - a. State of Arizona Fire Marshal Certification(s)
 - b. State of Arizona Department of Health Services Certification(s)
 - c. American Heart, Red Cross, or other certifying agency course completion in CPR
 - d. International Fire Service Accreditation Council (IFSAC) Certification

Prerequisites

All the following must be earned with a grade of "C" or better:

EMS125 Emergency Medical Technician (8)
 FSC129 Hazardous Materials First Responder Operations (3)
 FSC134 Fitness and Conditioning for Firefighters (3)
 Complete the above OR Program Director consent.

Core Requirements (19)

FSC106 Introduction to Emergency Services (3)
 FSC140 Firefighter I & II (13)
 FSC180 Wildland Fire, Module I (3)

Other Requirements

Students must earn a grade of "C" or better in all core courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



FIRE SCIENCE TECHNOLOGY A.A.S.

Signal Peak Campus

Total Credits: 65

The Fire Science Technology A.A.S. Degree offers advanced training for professional firefighters, including practical firefighting, hazardous materials, related operations, history and theory and fire service management.

Recommendations



1. Students should use the Major Map when they consult their Academic Advisor.
2. Some courses require:
 - a. State of Arizona, (AZCFSE) Certification(s)
State of Arizona Fire Marshal Certification(s)
 - b. State of Arizona Department of Health Services Certification(s)
 - c. American Heart, Red Cross, or other certifying agency course completion in CPR
 - e. IFSAC (International Fire Service Accreditation Congress) certification.

Prerequisites


EMS125 Emergency Medical Technician (8) or equivalent, IEMT or Paramedic

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)  
ENG121 Applied Technical Writing (3) (*Recommended*)



Oral Communications (3)

COM206 Public Speaking (3)  (*Recommended*)
Or select an AGECE COM course.

Arts and Humanities (3)

Select an AGECE Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above.

Social and Behavioral Sciences (3)

SOC101 Introduction to Sociology (3)   (*Recommended*)
Or select an AGECE Economics, History, Political Science, Psychology or Sociology course numbered 100 or above.

Physical and Biological Sciences (4)

Select a Biological and Physical Lab Science AGECE course numbered 100 or above, or an AGECE Science Lab course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (37)

FSC106 Introduction to Emergency Services (3)
FSC108 Fundamentals of Fire Prevention (3)
FSC110 Firefighter Safety and Survival (3)
FSC117 Fire Apparatus and Equipment (3)
FSC129 Hazardous Materials First Responder Operations (3)
FSC134 Fitness Conditioning for Firefighters (3)
(*Fulfills PAC or DAN requirement*)
FSC140 Firefighter I & II (13)
FSC180 Wildland Fire, Module I (3)
FSC208 Building Construction for the Fire Service (3)

Electives (6)

Select two:

FSC119 Fire Service Ethics (3)
FSC202 Supervisory Training for Firefighters (3)
FSC204 Firefighter Tactics and Strategy (3)
FSC205 Command Strategies for Major Emergencies (3)
FSC209 Fire Origin, Cause and Determination (3)

OR Any FSC course.

Other Requirements (3)

PAC or DAN (1) (*Fulfilled by FSC134*)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture
CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course (Consult the CEG.)

Students must earn a grade of "C" or better in all core courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

**Note: Requirements for Basic EMT (EMS125), IEMT (EMS208) and Paramedic (EMS272) are regulated by the Arizona Department of Health Services and are not negotiable.*

This A.A.S. Degree requires 65 credits.



WILDLAND FIREFIGHTER I CERTIFICATE

Signal Peak Campus and Corporate Center

Total Credits: 13

Advanced training in Wildfire Firefighting per the requirements established by the National Wildfire Coordinating Group (NWCG). This certification is designed for the professional firefighter currently employed with an agency that responds to wildland fire incidents. This certificate will provide the student the (NWCG) educational requirements that lead up to the level of Single Resource Boss.

In order to qualify and complete the certificate, students must acquire a minimum of 120 hours total, half of those hours (60 hours) must be hotline.

Prerequisites:

FSC129 Hazardous Materials First Responder Operations (S-110 and I-100) (3)

AND

FSC180 Wildland Fire, Module 1 (S-130/190, S-133, S-134, L-180) (3)

Complete the above OR Program Director consent

Core Requirements (13)

- FSC181 NWCG Advanced Firefighter Training (S-131) (.5)
- FSC182 NWCG Portable Pumps and Water Use (S-211) (1)
- FSC186 NWCG Crew Boss (Single Resource) (S-230) (1.5)
- FSC187 NWCG Engine Boss (Single Resource) (S-231) (.5)
- FSC189 NWCG Interagency Incident Business Management (S-260) (2)
- FSC190 NWCG Basic Air Operations (S-270) (1.5)
- FSC191 NWCG Intermediate Wildland Fire Behavior (S-290) (2)
- FSC192 Initial Attack Incident Commander (S-200) (1)
- FSC193 Followership to Leadership (L-280) (1)
- FSC203 Fire Operations in the Wildland/Urban Interface (S-215) (2)

Other Requirements

Students must earn a grade of "C" or better in all courses within the Certificate, including the prerequisites.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

GEOLOGY AND PLANETARY SCIENCE

GEOLOGY AND PLANETARY SCIENCE A.S.

Signal Peak Campus

Total Credits: 60-64

The Associate of Science in Geology and Planetary Science Degree prepares students to transfer to a university to earn a baccalaureate degree in Geology or a related field.

General Education Requirements AGEC-S (35-37)

Written Communications (6)

ENG101 English Composition III (3)  

ENG102 English Composition IV (3)  


Arts and Humanities (6)



Select one Art (3) and one Humanities (3) AGEC course.

Social and Behavioral Sciences (6)

Select AGEC courses from two different disciplines.

Physical and Biological Sciences (8)


AST101 Astronomy (4) 


GLG101 Physical Geology (4)  


Mathematics (3-4)

MAT221 Analytical Geometry and Calculus I (4) or higher

Subject Options (6-8)

ENV101 Environmental Science (4) 

GLG102 Historical Geology (4) 

GLG110 Geological Hazards and Disasters (4) 

Special Awareness Requirements (0-9)











Select AGEC courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness.



Note: Courses used in other areas, such as Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives, may also be used to satisfy the three (3) Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (20)

- CHM151 General Chemistry I (4)  
 CHM152 General Chemistry II (4)  
 MAT231 Calculus with Analytical Geometry II (4)  
 PHY121 University Physics I: Mechanics (4)  
 PHY122 University Physics II: Electricity and Magnetism (4)  

Transferable Electives (0-8)

Based on your major, consult the Transfer Guide at <http://aztransfer.com/college/> and select mathematics courses above the second course in the calculus sequence and/or Science courses from: Astronomy, Biology, Chemistry, Engineering, Environmental Science, Geology or Physics.

Select elective credits that transfer to the chosen university to meet 60-64 credit A.S. Degree requirement.

Other Requirements (3)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture

OR

CIS120 Survey of Computer Information Systems (3) 

Students must earn a grade of “C” or better in each A.S. degree required course.

Students must earn a minimum of 20 credits from CAC which includes the AGECS requirements.



HEALTH CAREERS

CLINICAL LABORATORY ASSISTANT CERTIFICATE

Signal Peak Campus

Total Credits: 27

The Clinical Laboratory Assistant Certificate prepares entry-level clinical laboratory assistants to perform various laboratory procedures including phlebotomy, specimen processing and quality control procedures under the supervision of physicians, laboratory scientists or technologists in a clinical laboratory setting.

Prerequisites:

High School Diploma or GED; MAT082, RDG094 


Pre-Program Requirements:

Students must apply for admission to the Clinical Laboratory Assistant Certificate program with the CLA Preceptor or HCC Division Chair before enrollment in the program Specialty courses. Certified Phlebotomist or completion of both HKS155 and HKS255 required.

Pre-Program Requirements (8)

- HCC111 Healthcare Law and Ethics (2)
 HCC112 Interpersonal Skills (2)
 HCC113 Math and Dosage Calculations for Health Occupations (1)
 HCC116 Medical Terminology (3)

Certificate Requirements (19)

- BIO160 Introduction to Human Anatomy and Physiology (4) 
 HPM169 Clinical Laboratory Assistant Basics I (4)
 HPM170 Clinical Laboratory Assistant Basics II (4)
 HPM171 Administrative Medical Procedures (4)
 HPM175P Clinical Laboratory Assistant Practicum (3)

Other Requirements

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



All program courses must be successfully completed with a grade of “C” or better before enrolling in HPM175P and mandatory requirements must be met.

CPR Certification must be current for at least 6 months at the start of Practicum.

CODING AND REIMBURSEMENT CERTIFICATE



District-Wide – Exclusively Online

Total Credits: 34

The Coding and Reimbursement Certificate prepares entry-level medical coders and reimbursement specialists. The competencies covered in this program include revised coding standards, health records, data content, accreditation standards, reimbursement methodologies, privacy, confidentiality, legal and ethical issues.

The Certificate prepares students to sit for the Certified Coding Associate (CCA) credentialing exam from AHIMA at the national level as well as the AMBA Certified Medical Reimbursement Specialist (CMRS).


Prerequisite:

High School Diploma or GED; MAT082, RDG094  CIS120 Survey of Computer Information Systems (3) 

Core Requirements (5)

HCC111 Healthcare Law and Ethics (2)
HCC116 Medical Terminology (3)

Specialty Requirements (29)

BIO160 Introduction to Human Anatomy and Physiology (4) 
HIM115 Health Information Technology I (3)
HIM131 Introduction to Insurance and Insurance Billing I (3)
HIM138 ICD Coding (3)
HIM158 CPT Coding (3)
HIM161 Introduction to Insurance and Insurance Billing II (3)
HPM162 Basic Pharmacology for Health Occupations (3)
HPM173 Pathophysiology (3)
HIM175I Practicum Coding and Reimbursement (4)

Optional Added Elective

HIM208 Advanced Coding (2)

Other Requirements

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

COMMUNITY PUBLIC HEALTH A.A.

District-Wide

Total Credits: 64





The Community Public Health Associate of Arts degree establishes a foundational understanding of health and disease factors based on community public health principles. The degree prepares graduates for positions in community public health focused on improving the quality of life of individuals and communities.

Prerequisites:

High School Diploma or GED
RDG094 College Reading  

General Education Requirements AGEC-A (35-36)

Written Communications (6)



ENG101 English Composition III (3)  
ENG102 English Composition IV (3)  

Oral Communications (3)

COM 263 Intercultural Communications (3)
(Recommended for degree)



Arts and Humanities (6-9)



Select one Art AGEC course (3)
Select one Humanities course (3)

PHI105 Introduction to Ethics (3)  
(Recommended for degree)

Social and Behavioral Sciences (6)



Select AGEC courses from two different disciplines.



PSY101 Introduction to Psychology (3)  
(Required for degree)

SOC101 Introduction to Sociology (3)  
(Recommended)



Physical and Biological Sciences (8)

CHM151 General Chemistry I (4)  
(Required for degree)

CHM152 General Chemistry II (4)  
(Required for degree)

Mathematics (3-4)

MAT 151 College Algebra (4) or higher

Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor, and see the Transfer Guides at <http://aztransfer.com/college/>.







Special Awareness Requirements (0-9)

Select AGECE courses to fulfill these requirements:

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry
(Fulfilled by PHI105, Introduction to Ethics);
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender)
(Fulfilled by COM263, Intercultural Communications);
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness.

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives, may also be used to satisfy the three (3) Special Requirements categories. A course may not be used to satisfy more than one Special Requirements category.

Core Requirements (37)

BIO181 General Biology (4)
BIO201 Human Anatomy and Physiology I (4)
BIO202 Human Anatomy and Physiology II (4)
CHM151 General Chemistry I (4)  
CHM152 General Chemistry II (4)  
CPH100 Introduction to Public Health (3)
CPH178 Personal Health and Community Wellness (3)
CPH296 Community Public Health Internship (2)
NTR200 Human Nutrition (3)
PSY101 Introduction to Psychology (3)  

PSY230 Introduction to Statistics (3)

OR

MAT162 Applied Statistics (3) 


Other Requirements (3)

Reading Competency: RDG094 

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)

OR

CIS120 Survey of Computer Information Systems (3) 
(Recommended)

For transfer into the School of Public Health at the University of Arizona, a grade of "B" or better is required for ENG102.

Students must earn:

- a grade of "C" or better in each AA Degree required course;
- a minimum of 20 credits from CAC which includes the AGECE-A requirements.

This A.A. Degree requires 64 credits.

HEALTH INFORMATION TECHNOLOGY A.A.S.

District-Wide – Exclusively Online

Total Credits: 71

The Health Information Technology (HIT) A.A.S. Degree program prepares students with the knowledge and technical skills necessary for managing and improving the quality of information within the healthcare delivery system. This Degree's focal points are the American Health Information Management Association (AHIMA) entry-level competencies.

The Health Information Technology Degree is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM) located at 233 N. Michigan Ave, 21st Floor, Chicago, IL 60601-5800; 312-233-1100; www.cahiim.org

Graduates from this program are eligible to sit for the Registered Health Information Technician (RHIT) credentialing exam.

Prerequisites

High School Diploma or GED; MAT082, RDG094 



Pre-Program Requirements

Students must apply to the Health Information Director for admission to the HIT Degree after earning a score of 70 or above on the HESI test. Accepted HIT students may then request permission from the Director to enroll in the Degree Specialty courses.

General Education Requirements (23)



Written Communications (3)


ENG101 English Composition III (3)  

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3)  
(Recommended)

COM206 Public Speaking (3) 
(Recommended)

Or select a COM course.



Arts and Humanities (3)

Select an AGEC course numbered 100 or above from the Art or Humanities disciplines.



Social and Behavioral Sciences (3)

Select an AGEC course numbered 100 or above from the Social and Behavioral Science disciplines.

Physical and Biological Sciences (8)

BIO201 Human Anatomy and Physiology I (4)  

AND

BIO202 Human Anatomy and Physiology II (4)  

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (44)

CBA113A MS Excel Basic (1)

CBA114A MS Access Basic (1)

HCC111 Healthcare Law and Ethics (2)

HCC116 Medical Terminology (3)

HIM115 Health Information Technology I (3)

HIM117 Health Information Technology II (3)

HIM121 Legal Aspects of Health Information (2)

HIM138 ICD Coding (3)

HIM158 CPT Coding (3)

HIM160 Health Information Technology Seminar (2)

HIM 200 Healthcare Reimbursement (2)

HIM 205 Healthcare Statistics and Research (2)

HIM208 Advanced Coding (2)

HIM210 Supervision and Quality (2)

HIM215 Health Information Systems (3)

HIM275Q Health Information Technology Practicum (4)

HPM162 Basic Pharmacology for Health Occupations (3)


HPM173 Pathophysiology (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3) 

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

The Health Information Technology A.A.S. Degree requires 71 credits.


MESSAGE THERAPY A.A.S.

Signal Peak and Superstition Mountain Campuses

Total Credits: 64

The Massage Therapy AAS Degree includes 735 hours of basic curriculum which prepares individuals for entry-level positions performing massage therapy in a variety of settings. With additional classes in general education and expanded medical courses, students may attain the AAS in Massage Therapy with a 1140 hour certificate. This program includes relaxation massage, therapeutic massage, massage therapy for special populations and spa treatments and hydrotherapy. Included in the program is a Chiropractic Assistant certification program. Additional topics include physiotherapy, body mechanics, acupuncture, anatomy, pathophysiology, business skills, and complementary and alternative medicine.

Prerequisites

High School Diploma or GED; RDG094 



DEGREES AND CERTIFICATES

Pre-Program Requirements:

Students must apply for admission to the degree program with the Massage Therapy Director before enrolling in the degree specialty courses.

General Education Requirements (19-23)



Written Communications (3)


ENG101 English Composition III (3)  


OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3)  

COM101 Interpersonal Communication (3) 



COM263 Intercultural Communication (3) 

Or select a COM course.

Arts and Humanities (3)


Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or higher,, or an AGECE course.

Social and Behavioral Sciences (3)

PSY101 Introduction to Psychology (3)  

Or select Social/Behavioral Science course, or AGECE course.

Physical and Biological Sciences (4)

BIO160 Introduction to Human Anatomy and Physiology (4) 

OR

BIO201 Human Anatomy and Physiology I (4)

AND

BIO202 Human Anatomy and Physiology II (4)

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR


MAT118 Essential Mathematics (4) or higher

Core Requirements (6)

HCC100 Introduction to Health Care (3)

HCC116 Medical Terminology (3)

Specialty Requirements (35-39)

BIO160 Introduction to Human Anatomy and Physiology (4) 

OR

BIO201 Human Anatomy and Physiology I (4)

AND

BIO202 Human Anatomy and Physiology II (4)

(Also fulfills Biological Sciences requirement)

HPM136 Business Skills for Massage Therapy (3)

HPM150 Chiropractic Assistant Training (2)

HPM151 Study of Acupuncture for Healthcare Professionals (1)

HPM152 Study of Physiotherapy for Healthcare Professionals (1)

HPM154 Complementary and Alternative Medicine (3)

HPM160 Applied Anatomy for Massage Therapy (3)

HPM173 Pathophysiology (3)

HPM175L Practicum – Massage Therapy, Relaxation Massage (1)

HPM175M Practicum – Massage Therapy, Therapeutic Massage (1)

HPM175N Practicum – Massage Therapy for Special Populations (1)

HPM175O Practicum – Massage Therapy, Spa Treatments and Hydrotherapy (1)

HPM180 Therapeutic Massage I (3)

HPM181 Therapeutic Massage II (3)

HPM280 Therapeutic Massage III (3)

HPM281 Therapeutic Massage IV (3)

HPM282 Therapeutic Massage V (3)

Elective (0 -1)

Select any 100 or higher college-level course to meet the 65 credit degree requirement.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS 110 Fundamentals of Computer Literacy (3)
(Recommended)

or Transferable Computer Competency course (Consult the CEG.)

Note: Prior to enrollment in any Practicum courses, mandatory requirements must be met.

CPR certification must be current for at least 6 months at the start of Practicum.

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64 credits.




MASSAGE THERAPY CERTIFICATE

***Signal Peak and Superstition Mountain
Campuses***

Total Credits: 39

Massage Therapy includes 735 hours of basic curriculum which prepares individuals for entry-level positions performing massage therapy in a variety of settings. This program includes relaxation massage, therapeutic massage, massage therapy for special populations, and spa treatments and hydrotherapy. Included in the program is a Chiropractic Assistant Certification program. Additional topics include physiotherapy, body mechanics, acupuncture, anatomy, pathophysiology, business skills, and complementary and alternative medicine.

Prerequisites

High School Diploma or GED; RDG094 

Pre-Program Requirements:

Apply for admission to the Certificate program with the Massage Therapy Program Director before enrolling in the specialty requirements.

Core Requirements (39)

- | | |
|------------|---|
| BIO160 | Introduction to Human Anatomy and Physiology (4) |
| OR | |
| BIO201 | Human Anatomy and Physiology I (4) |
| AND | |
| BIO202 | Human Anatomy and Physiology II (4) |
| HPM136 | Business Skills for Massage Therapy (3) |
| HPM150 | Chiropractic Assistant Training (2) |
| HPM151 | Study of Acupuncture for Health Care Professionals (1) |
| HPM152 | Study of Physiotherapy for Health Care Professionals (1) |
| HPM154 | Complementary and Alternative Medicine (3) |
| HPM160 | Applied Anatomy for Massage Therapy (3) |
| HPM173 | Pathophysiology (3) |
| HPM180 | Therapeutic Massage I (3) |
| HPM181 | Therapeutic Massage II (3) |
| HPM280 | Therapeutic Massage III (3) |
| HPM281 | Therapeutic Massage IV (3) |
| HPM282 | Therapeutic Massage V (3) |
| HPM175L | Practicum –Massage Therapy, Relaxation (Massage) (1) |
| HPM175M | Practicum – Massage Therapy, Therapeutic Massage (1) |
| HPM175N | Practicum - Massage for Special Populations (1) |
| HPM175O | Practicum – Massage Therapy, Spa and Hydrotherapy Treatment (1) |

Other Requirements

Prior to enrollment in any practicum courses, mandatory requirements must be met.

CPR certification must be current for at least six months at the start of the Practicum.

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

MEDICAL ASSISTANT A.A.S.

***Signal Peak and Superstition Mountain
Campuses***

Total Credits: 64

Preparation of entry-level Medical Assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains as established by the American Association of Medical Assistants (AAMA) located at 20 N. Wacker Drive, Suite 1575, Chicago, IL 60606; 800-228-2262; <http://www.aama-ntl.org>

This Degree includes general education requirements and prepares individuals to perform administrative and clinical procedures in ambulatory settings, including physician's offices, clinics and group practices.

The Medical Assistant A.A.S. degree is accredited by the American Association of Medical Assistants (AAMA). Graduates are eligible to take the AAMA examination to become certified medical assistants (CMA).

Prerequisites

High School Diploma or GED; MAT082, RDG094 

Pre-Program Requirements:

After successful completion of all the General Education requirements, CIS120, physical education activity, CBA112A, CBA112B, CBA113A, OAS101, OAS103 and HCC116, students must pass the required HESI tests with a score of 70 or above in each test, AND apply for admission to the program with the HCC Division Chair before enrollment in the Degree program.





General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)  

Oral Communications (3)



COM100 Fundamentals of Human Communication (3)  

Arts and Humanities (3)


Select an Art, English, History, Honors, Humanities, Literature, Music, Philosophy or a Theatre course numbered 100 or above, or an Arts or Humanities AGECE course.

Social and Behavioral Sciences (3)

Select the recommended course or a Social and Behavioral Sciences course from Anthropology, Archaeology, Economics, Ethics, Geography, History, Political Science, Psychology or Sociology numbered 100 or above, or an AGECE course.

PSY101 Introduction to Psychology (3)  

Physical and Biological Sciences (4)

BIO160 Introduction to Human Anatomy & Physiology (4) 

Mathematics (3-4)

Select a college-level Mathematics course

MAT118 Essential Mathematics (4) or higher

Core Requirements (16)

CBA112A MS Word – Basic (1)

CBA112B MS Word – Intermediate (1)

CBA113A MS Excel – Basic (1)

HCC100 Introduction to Healthcare (3)

HCC111 Healthcare Law and Ethics (2)

HCC112 Interpersonal Skills (2)

HCC113 Math and Dosage Calculations for Health Occupations (1)

HCC116 Medical Terminology (3)

OAS101 Keyboard - Alphabetic (1)

OAS103 Keyboard - Speed/Accuracy (1)

Specialty Requirements (25)

HIM131 Introduction to Insurance and Insurance Billing I (3)

HPM140 Medical Assisting Skills I (4)

HPM141 Medical Assisting Skills II (4)

HPM162 Basic Pharmacology for Health Occupations (3)

HPM171 Administrative Medical Procedures (4)

HPM173 Pathophysiology (3)

HPM175C Medical Assistant Degree Practicum (4)

(All program courses must be successfully completed before enrolling in HPM175C. Prior to enrollment in HPM175C, specific mandatory requirements must be met. Consult with the program director.)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS120 Survey of Computer Information Systems or higher CIS course

Healthcare Provider CPR and First Aid certification is required before enrolling in HPM175C and must be current for at least 6 months after the start of HPM175C.

Students must earn a grade of “C” or better in all required courses for this AAS degree.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least 20 of the certificate credits from CAC.

This A.A.S. Degree requires 64 credits.

MEDICAL ASSISTANT CERTIFICATE

Signal Peak and Superstition Mountain Campuses

Total Credits: 37

This Certificate prepares competent entry-level Medical Assistants in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains to perform administrative and clinical procedures in ambulatory settings, including physicians' offices, clinics, and group practices. These domains have been established by the American Association for Medical Assistants (AAMA).

Prerequisites

High School Diploma or GED; MAT082, RDG094 

Pre-Program Requirements:

Pass the required HESI tests with a score of 70 or above in each test before enrollment in the program AND apply for admission to the program with the HCC Division Chair before enrollment in the program.



Core Requirements (12)

BIO160	Introduction to Human Anatomy and Physiology (4)
HCC111	Healthcare Law and Ethics (2)
HCC112	Interpersonal Skills (2)
HCC113	Math and Dosage Calculations for Health Occupations (1)
HCC116	Medical Terminology (3) or equivalent

Specialty Requirements (25)

HIM131	Introduction to Insurance and Insurance Billing I (3)
HPM140	Medical Assisting Skills I (4)
HPM141	Medical Assisting Skills II (4)
HPM162	Basic Pharmacology for Health Occupations (3)
HPM171	Administrative Medical Procedures (4)
HPM173	Pathophysiology (3)
HPM175E	Medical Assistant Certificate Practicum (4)

Other Requirements

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



NURSING A.A.S.

Signal Peak Campus

Total Credits: 65

Central Arizona College's Registered Nursing Program prepares students for the medical workforce or to complete further education to specialize in clinical practice, teaching or administration.

The CAC Nursing Program is approved by the Arizona State Board of Nursing, 4747 N. 7th Street, Suite 200, Phoenix, AZ 85014; 602-771-7803; www.azbn.gov and accredited by Accreditation Commission for Education in Nursing, 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326; 404-975-5000; <http://acenursing.org>

Current Nursing students may apply to take the Practical Nurse Licensing Examination (NCLEX-PN) after completing the general education requirements, NUR121, NUR122 and NUR150. Completion of the four-semester Program qualifies the student for the Nursing Associate of Applied Science Degree and for taking the Registered Nurse Licensing Examination (NCLEX-RN).

Admission Requirements

In addition to the admission requirements of the College, applicants must meet the current requirements established by the Nursing Admissions Committee in conjunction with the Nursing Faculty. These requirements include, but are not limited to:

1. Competence in Math, English, and Reading
2. Completion of BIO201, BIO202
3. CNA License from the Arizona State Board of Nursing must be included in the application to the CAC Nursing program. (Request CNA License early to allow shipping and processing time.)
4. Attendance at a Nursing Information session within the past year
5. Eligibility to register for MAT141 or higher MAT course
6. Eligibility to register for ENG101
7. Successful completion of the HESI Entrance Test at CAC (within 3 attempts)
8. Cumulative GPA of 2.75 or higher
9. Completed CAC Nursing program application

Students must be able to meet the essential functions of the Nursing Program as listed in the Nursing Application and Information Packet. Admission to the Nursing Program is selective and based on a point system (specific established



criteria). Acceptance into the college does not guarantee acceptance into the Nursing Program.

Further information may be obtained at URL:



http://www.centralaz.edu/Home/Academics/Divisions_and_Programs/Nursing_Division.htm.



Proper course sequencing is essential. Please see your academic advisor.

Recommended Proficiencies

Competence in math, English and reading.

Prerequisites (8)

BIO201 Human Anatomy and Physiology I (4)  

BIO202 Human Anatomy and Physiology II (4)  

(Counted as part of the Nursing A.A.S. Degree General Education requirements)



Arizona Certified Nursing Assistant (CNA)

AND acceptance into Nursing Program

General Education Requirements (24)

Written Communications (6)



ENG101 English Composition III (3)  

ENG102 English Composition IV (3)  



Arts and Humanities (3)



Select an AGECE course.

Social and Behavioral Sciences (3)

PSY101 Introduction to Psychology (3)  

Physical and Biological Sciences (8)

BIO202 Human Anatomy and Physiology II (4)  
(Fulfilled under Prerequisites)

BIO205 Microbiology (4)  

Mathematics (4)

MAT141 College Mathematics, Standard or higher
(excluding MAT201 and MAT202)

Core Requirements (40)

HPM173 Pathophysiology (3)

NUR121 Intro to Nursing Transitions (8)

NUR122 Nursing Health Illness Transitions (8)

NUR126 Principles and Application of Drug Dosage Calculations (2)

NUR145 Pharmacology (3)

NUR221 Nursing Developmental Transitions (8)

NUR222 Nursing Organizational Transitions (8)

Other Requirements (1)

PAC or DAN course (1)

Reading Competency: RDG094 College Reading 

Students must earn a grade of "C" or better in all courses to receive this AAS degree.

Students must earn a minimum of 20 credits from CAC.

The Nursing A.A.S. Degree requires 65 credits.

PHARMACY TECHNICIAN

CERTIFICATE

Signal Peak Campus

Total Credits: 33

The Pharmacy Technician Certificate prepares entry-level Pharmacy Technicians by emphasizing medical and pharmaceutical terminology, calculations, record keeping, pharmaceutical techniques, and law and ethics. Most core requirements are offered as an online option.


Prerequisites

High School Diploma or GED MAT086; RDG094 

Pre-Program Requirements:

Apply for admission to the program with the HCC Division Chair or Program Preceptor before enrollment in the program. Pass the required HESI tests with a score of 70 or above on each test before enrollment in the program.

Core Requirements (18)

BIO160 Introduction to Human Anatomy and Physiology (4) 

CIS120 Survey of Computer Information Systems (3) 

HCC100 Introduction to Health Care (3)

HCC111 Health Care Law and Ethics (2)

HCC112 Interpersonal Skills (2)

HCC113 Math and Dosage Calculations for Health Occupations (1)

HCC116 Medical Terminology (3)

Specialty Requirements (15)

HPM105 Pharmacy Techniques (3)

HPM162 Basic Pharmacology for Health Occupations (3)

HPM164 Pharmacy Certification Review (2)



HPM173 Pathophysiology (3)
HPM175H Practicum - Pharmacy Technician (4)

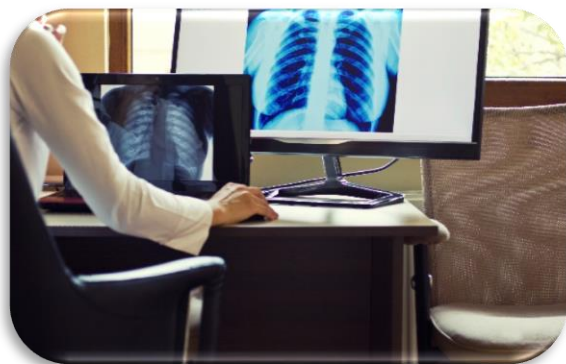
Other Requirements

Students must earn a grade of "C" or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn at least one-third of the certificate credits from CAC.



RADIOLOGIC TECHNOLOGY A.A.S. *Superstition Mountain Campus*

Total Credits: 79

Radiologic Technology is a health care profession involving the use of ionizing radiation to generate diagnostic images in the diagnosis and treatment of disease. The Associate of Applied Science Degree in Radiologic Technology is a two-year program (six sequential semesters including summers) that prepares students for entry-level positions as radiographers. The program starts once per year in the Spring Semester.

The curriculum is designed in accordance with the Radiography Curriculum established by the American Society of Radiologic Technologists. Students are required by Arizona State Statute to complete 1,800 practicum hours within the two years. The Radiologic Technology course of study is a demanding experience and involves a full-time commitment of at least 40 hours per week plus homework. Students must earn a grade of "C" or better in all required courses.

Graduates of the program are eligible to:

1. Receive a Radiologic Technology Associate of Applied Science Degree;
2. Sit for the American Registry of Radiologic Technologists examination (ARRT);

3. Apply for an Arizona license to practice Radiography - CRT (Certified Radiologic Technologist).

The Radiologic Technology Degree is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 North Wacker Drive, Suite 2850, Chicago, Illinois 60606-3182; 312-704-5300; mail@jrcert.org

Recommended Proficiencies

Enrollment is limited and the selective admission process is highly competitive. Students must meet the minimum admission requirements of the program and those required for admission to Central Arizona College. Admission to the program is based on a point value system. Points are calculated by a formula related mainly to grade point average, residency, work experience, committee interview and other criteria.

CAC highly recommends candidates complete BIO201 and BIO202. Achieving a high level of success in the courses taken before applying to the program will improve a student's chance for admission to the radiography program.

Admission requirements:

- High School Diploma or equivalency (GED)
- Record of Immunizations
- Pre-admission testing to prove college-level English, reading and math proficiency
- Pass screening tests that will include: drug testing, criminal background check and fingerprinting
- Possess the ability to perform basic physical tasks as required
- Submission of the Radiologic Technology Program Application Form
- Two letters of recommendation

Prerequisites

Radiologic Technology Cohort student.
HCC116 Medical Terminology (3) or equivalent course.

General Education Requirements (23)

Candidates who have completed a prior associate's degree or earned General Education course credits with a grade of "C" or better from regionally accredited institutions may count them toward the General Education Requirements below.

Written Communications (3)

ENG101 English Composition III (3) (SUN ENG 1101)

OR

ENG121 Applied Technical Writing (3)



Oral Communications (3)

Select a COM course or an AGECE course if you plan to transfer to earn a bachelor's degree.



Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (8)

BIO201 Human Anatomy and Physiology I (4) 
BIO202 Human Anatomy and Physiology II (4) 

Mathematics (3)

MAT121 Intermediate Algebra, Standard (4) or higher

Required Courses (55)

RAD100 Fundamentals of Radiologic Science and Healthcare (1)
RAD110 Radiographic Positioning I (4)
RAD120 Principles of Radiographic Exposure I (3)
RAD130 Patient Care in Radiologic Science (2)
RAD140 Practicum I (240-280 hours) (3)
RAD150 Radiation Physics I (3)
RAD160 Radiographic Positioning II (4)
RAD170 Principles of Radiographic Exposure II (3)
RAD180 Practicum II (240-280 hours) (3)
RAD200 Practicum III (600-650 hours) (7)
RAD210 Radiation Physics II (3)
RAD230 Radiobiology and Radiation Protection (3)
RAD240 Practicum IV (360-390 hours) (4)
RAD250 Basic Pharmacology and Drug Administration (1)
RAD260 Radiographic Pathology (2)
RAD270 Advanced Imaging (2)
RAD280 Registry Review (3)
RAD290 Practicum V (360-390 hours) (4)

Other Requirements (4)

PAC or DAN course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

(Fulfilled in RAD Core Requirements)

Students must earn a grade of "C" or better in all courses to receive this degree.

Students must earn a minimum of 20 credits from CAC.

The Radiologic Technology A.A.S. Degree requires 79 credits.

MANUFACTURING

FIELD PROGRAMMABLE GATE ARRAY (FPGA) CERTIFICATE

Signal Peak Campus

Total Credits: 18

The Field Programmable Gate Array (FPGA) Certificate provides the basis for an entry-level career or the professional training required of a working engineer. FPGA, embedded fundamentals and MicroBlaze processor applications are emphasized.

Recommended Proficiencies

Computer programming and basic electronics coursework prepare students for success in this Certificate program.

Core Requirements (18)

ELT128 FPGA Fundamentals (3)
ELT223 Microcontroller Fundamentals (3)
ELT260 Advanced FPGA Concepts (3)
ELT265 MicroBlaze1 (3)
ELT270 MicroBlaze2 (3)
ELT275 Embedded Fundamentals (3)

Other Requirements

Students must earn a grade of "C" or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

LABVIEW PROGRAMMING CERTIFICATE

Signal Peak Campus

Total Credits: 16

The LabVIEW Certificate provides the basis for an entry-level career in the LabVIEW programming environment using National Instruments hardware.



Recommended Proficiencies

Computer programming and basic electronics coursework prepare students for success in this Certificate program.

Core Requirements (16)

MET261	LabVIEW 1 Programming (3)
MET262	LabVIEW 2 Programming (3)
MET263	LabVIEW 3 Programming (3)
MET264	LabVIEW FPGA Applications (3)
MET265	LabVIEW Overview (4)

Other Requirements

Reading Competency: RDG094 College Reading 

Students must earn a grade of “C” or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

MANUFACTURING ENGINEERING TECHNOLOGY A.A.S.

District-Wide

Total Credits: 64-71

The Manufacturing Electronics A.A.S. Degree program provides opportunities for students to gain knowledge, skills and understanding of the concepts and applications of electronics in manufacturing. This Degree has been developed in cooperation with the semiconductor manufacturing industries. Students are prepared for employment in the electronics, service maintenance, and related manufacturing fields as entry-level technicians. For those presently employed in the industry it provides an opportunity to upgrade skills.

Recommended Proficiencies

Fundamental computer skills.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) 

OR



ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

For the following two categories: 1) Arts and Humanities and 2) Social and Behavioral Sciences, the required courses must represent two different departmental areas from each category. For example, students may not take a History course to fulfill their Arts and Humanities requirement if they are using another History course to complete their Social and Behavioral Sciences requirement.

Arts and Humanities (3)


ART207	Art History I (3) 
MHL100	Music Appreciation (3)
MHL207	Survey of Jazz/Pop Music (3)
THE100	Theater Appreciation (3) 

Or select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

ECN201 Principles of Macroeconomics (3)
Or select a Social and Behavioral Science course, or an AGECE course.

Physical and Biological Sciences (8)

BIO100 Biology Concepts (4) 
Or select a Biological or Physical Science course.

Mathematics (3-4)

Select a college-level Mathematics course:
MAT121 Intermediate Algebra, Standard (4) or higher

Core Requirements (41-48)

Mechatronics Certificate (27)

ELC122	Direct Current and Alternating Current Circuit Analysis (3)
ELC220	Active Circuits (3)
ELT128	FPGA Fundamentals (3)
ELT223	Microcontroller Fundamentals (3)
MET125	Principles of Fabrication (3)
MET132	Fluid Power (Hydraulics-Pneumatics) (3)
MET261	LabView 1 Programming (3)
MET221	Electro-Mechanical Technology (3)
MET232	Solid Modeling - Solidworks (3)

Select one Specialization:

Specialization 1 (21)

Programmable Logic Controller Certificate

ELC221 Control Devices (3)



DEGREES AND CERTIFICATES

ELC128 Introduction to Programmable Logic Controllers (3)
ELC228 Advanced Programmable Logic Controllers (3)
MET240 DeviceNet (3)
MET245 Variable Frequency Drive (3)
MET250 Factory Talk (3)
MET226 Electro-Mechanical Systems (3)

OR

Specialization 2 (15)

LabView Programming Certificate

MET261 LabView 1 Programming (3)
MET262 LabView 2 Programming (3)
MET263 LabView 3 Programming (3)
MET264 LabView FPGA Programming (3)
MET265 LabView Overview (3)

OR

Specialization 3 (14)

Semiconductor Industry

CHM130 Fundamental Chemistry (4)
ELC200 Radio Frequency RF/High Vacuum HV (3)
MET230 Semiconductor I - Seminar (3)
PHY111 College Physics (4)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture
CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course (Consult the CEG.)

Students must earn a grade of "C" or better in all required courses for this AAS degree.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64-71 credits.

NANOFABRICATION TECHNOLOGY

A.A.S.

Signal Peak Campus



Total Credits: 70

The Nanofabrication Technology Degree program offers students the opportunity to enter the exciting world of Nanotechnology. Nanofabrication and nanotechnology is engineering at the atomic length scale, a size range which until recently was only available to nature. Being able to engineer such small structures opens the door to a multitude of new opportunities in the fields of chemical technology, bio-technology, biopharmaceutical labs, micro-technology labs, material science labs and electronic technology.

Recommended Proficiencies


Strong math and science background.

Prerequisites

CHM130 Fundamental Chemistry (4) 
MAT092 Introductory Algebra (3)
RDG094 College Reading 

General Education Requirements (36)

Written Communications (3)

ENG101 English Composition III (3)  or higher
ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3) or higher





Arts and Humanities (3)

Select as Art, Humanities, Literature, Music, Philosophy or Theater course numbered 100 or above or an AGECE course.

Social and Behavioral Sciences (3)

PSY101 Introduction to Psychology (3)
Or select a Social and Behavioral Science course, or an AGECE course.



Physical and Biological Sciences (16)


CHM151 General Chemistry I (4) 
CHM152 General Chemistry II (4) 
PHY111 College Physics I (4) 
PHY112 College Physics II (4) 



Mathematics (8)

Select a college-level Mathematics course

MAT151 College Algebra (4)  

MAT182 Trigonometry with Algebra Review (4) 

Core Requirements (30)

- ELC122 Direct Current and Alternating Current Circuit Analysis (3)
- ELC200 Radio Frequency RF/High Vacuum HV (3)
- ELC220 Active Circuits (3)
- MET230 Semiconductor I - Seminar (3)
- MET290 Material, Safety and Equipment Overview for Nanotechnology (3)
- MET291 Basic Nanotechnology Processes (3)
- MET292 Materials in Nanotechnology (3)
- MET293 Patterning for Nanotechnology (3)
- MET294 Materials Modification in Nanotechnology (3)
- MET295 Characterization, Testing of Nanotechnology Structures and Materials (3)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course
(Consult the CEG.)

Students must earn a grade of "C" or better in all required courses for this AAS degree.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 70 credits.

NUTRITION AND DIETETICS

COMMUNITY NUTRITION WORKER CERTIFICATE

District-Wide

Total Credits: 16

The Community Nutrition Worker Certificate provides the opportunity for individuals to develop skills and competencies in the areas of food, nutrition and health necessary for careers in public health nutrition.

Recommended Proficiencies

High school diploma or GED

Prerequisites

RDG094 College Reading 

Core Requirements (16)

- NTR104 Nutrition (3)
- NTR123 Nutrition throughout the Life Cycle (3)
- NTR127 Breastfeeding and Human Lactation (1)
- NTR134 Healthy Weight for Kids (1)
- NTR191 Nutrition Counseling Skill Development (3)
- NTR201 Nutrition Literacy (1)
- NTR219 Community Nutrition (3)
- NTR232A Food and Culture (1)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

DIABETES CARE AND EDUCATION CERTIFICATE

District-Wide

Total Credits: 16

The Diabetes Care and Education Certificate provides current training and information to paraprofessionals working with people at risk for developing diabetes or developing complications from diabetes.



Recommended Proficiencies

High school diploma or GED

Prerequisites

RDG094 College Reading *R*

Core Requirements (11)

NTR104	Nutrition (3)
NTR131	Introduction to Diabetes (3)
NTR137	Carbohydrate Counting (1)
NTR191	Nutrition Counseling Skill Development (3)
NTR201	Nutrition Literacy (1)

Electives (5)

Select from the following options:

NTR134	Healthy Weight for Kids (1)
NTR136	Management of Gestational Diabetes (1)
NTR232A	Food and Culture (1)
NTR247	Weight Management Theory (3)
NTR255	Medical Terminology, Labs & FDI (1)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

DIETARY MANAGER TRAINING PROGRAM CERTIFICATE

District-Wide

Total Credits: 16

The Dietary Manager Training Certificate prepares food service workers and/or supervisors for management in health care facilities and various other food service establishments.

The Dietary Manager Training Certificate has been approved by the Association of Nutrition and Foodservice Professionals (ANFP) located at 406 Surrey Woods Drive, S. Charles, IL 60174; 800-323-1908; www.anfponline.org. Upon successful completion, graduates are eligible to take the National Certification exam for the Certified Dietary

Manager and the Certified Food Protection Professional credentials (CDM, CFPP).

Recommended Proficiencies

High school diploma or GED

Core Requirements (16)

NTR104	Nutrition (3)
NTR156	Foundations of Dietary Manager Internship (2)
NTR196	Dietary Manager Internship (4)
NTR223	Food Service Management (3)
NTR240	Clinical Nutrition (3)
NTR255	Medical Terminology, Labs & Food Drug Interaction (1)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

DIETETIC TECHNICIAN A.A.S.

District-Wide

Total Credits: 65

The Dietetic Technician Degree is designed for highly motivated individuals who would like to work in healthcare, schools and wellness. Students who successfully complete the coursework and internship are eligible to take the National Registration Examination for Dietetic Technicians (DTR) offered by the Commission on Dietetic Registration (CDR), the credentialing agency for the Academy of Nutrition and Dietetics.

The Dietetic Technician Degree is approved by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) located at 120 S. Riverside Plaza, Suite 2000, Chicago, IL 60606-6995; 1-800-877-1600 or 312-899-0040, ext. 5400. www.eatright.org/ACEND/

Note: Application for admissions to the Dietetic Technician Program is required.

Recommended Proficiencies

High school diploma or GED



General Education Requirements (22-23)

Written Communications (3)

ENG101 English Composition III (3)  

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM100 Fundamentals of Human Communication (3) 

Or select a COM course, or an AGECE course.


Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (7-8)

BIO160 Introduction to Human Anatomy/Physiology (4) 

OR

BIO201 Human Anatomy and Physiology I (4) AND

BIO202 Human Anatomy and Physiology II (4)

AND

CHM130 Fundamentals of Chemistry (4)  

OR

CHM138 Chemistry for Allied Health (3) (equivalent or higher)

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (39)

NTR123 Nutrition throughout the Life Cycle (3)

NTR129 Introduction to Health Care for Nutrition Professionals (3)

NTR142 Applied Food Science (3)

NTR150 Overview of Nutrition Professions (1)

NTR157 Foundations of Dietetic Technician Internship (2)

NTR163 Orientation to the Dietetic Technician Program (2)

NTR191 Nutrition Counseling Skill Development (3)

NTR200 Human Nutrition (3)

NTR201 Nutrition Literacy (1)

NTR219 Community Nutrition (3)

NTR222 Nutrition Assessment and Medical Nutrition Therapy (3)

NTR223 Food Service Management (3)

NTR232A Food and Culture (1)

NTR255 Nutrition Medical Terminology, Labs & Food Drug Interaction (1)

NTR295 Dietetic Technician Professional Practice Internship (1)

NTR296 Dietetic Technician Internship (6)

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture

CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course (Consult the CEG.)

Completion of NTR course requirements within three (3) years of beginning the program required.

Completion of CHM course requirements within five (5) years of beginning the program required.

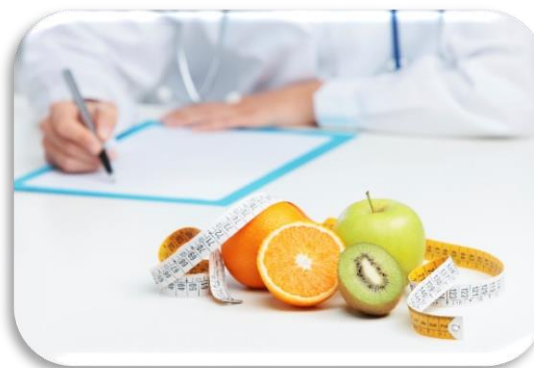
Students must meet all ACEND requirements. CAC recommends that students work in a nutrition-related field which is desirable for obtaining a supervised practice site.

Students must earn a grade of "C" or better in all required courses for this A.A.S. degree.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 65 credits.





NUTRITION AND HEALTH PROMOTION CERTIFICATE

District-Wide

Total Credits: 20

The Nutrition and Health Promotion Certificate is designed to provide knowledge and training for people who are working with individuals who need education and coaching to lead a healthy lifestyle. This certificate is based on health promotion and disease prevention.

Recommended Proficiencies

High school diploma or GED

Core Requirements (20)

- NTR123 Nutrition throughout the Life Cycle (3)
- NTR150 Overview of Nutrition Professions (1)
- NTR191 Nutrition Counseling Skill Development (3)
- NTR200 Human Nutrition (3)
- NTR219 Community Nutrition (3)
- NTR222 Nutrition Assessment and Medical Nutrition Therapy (3)
- NTR232A Food and Culture (1)
- NTR247 Weight Management Theory (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

RENEWABLE ENERGY TECHNOLOGY

RENEWABLE ENERGY TECHNOLOGY A.A.S.

Signal Peak Campus

Total Credits: 64-65

The Renewable Energy Technology A.A.S. Degree provides solid foundational knowledge, skills, strategies

and field experience to prepare students for multiple roles within alternative energy fields. Students select a specialization area of either Biofuels or Photovoltaic Technology.

Prerequisite

RDG094 College Reading (3)

General Education Requirements (22-23)

Written Communications (3)

ENG101 English Composition III (3)

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course, or an AGECE course.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select an Anthropology, Economics, Geography, History, numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (8)

- AGS101 World of Plants (4)
- AGS104 Agricultural Environmental Science (4)
- BIO100 Biology Concepts (4)
- CHM130 Fundamental Chemistry (4)
- ENV101 Environmental Science (4)
- PHY100 Physical Universe (4)

Or select Biological and Physical Lab Science courses numbered 100 or above, or an AGECE Science Lab courses.

Mathematics (3-4)

Select a college-level Mathematics course

- MAT111 Math for Electricians (2)
- MAT121 Intermediate Algebra, Standard (4)
- MAT162 Applied Statistics (3) or higher

Core Requirements (14)

- RET105 Introduction to Renewable Energy (3)
- RET160 OSHA Safety for Renewable Energy (1)
- RET296 Renewable Energy Technology Internship (4)

Select one of the following (3):

- DFT120 Interpreting Engineering Drawings (3)
- DFT127 Autocad I: Computer Drafting and Design (3)



DFT128 Autocad II: Computer Drafting and Design (3)
MET232 Solid Works (3)

Select one of the following (3):

MET125 Principles of Fabrication (3)

OR

WLD110 Survey of Welding (3)

Select one Specialization:

Biofuels Specialization Requirements (23)

ELC221 Control Devices (3)
DIE110 Introduction to Diesel Engines and Fuel Systems (3)
MET132 Fluid Power (3)
RET150 Pollution Controls and Industrial Waste (2)
RET250 Ethanol Process Fundamentals (3)
RET252 Biofuels Facilities Design and Boiler Systems (3)
RET255 Distillation and Evaporation Theory (3)
RET275 Biodiesel Production and Design (3)

Photovoltaic Technology Specialization Requirements (24)

Select one:

BUS100 Introduction to Business (3)
BUS101 Business Mathematics (3)
BUS122 Small Business Management (3)
ELC126 Residential Wiring (3)
ELC201 Solar Photo Voltaic I (3)
ELC202 Solar Photo Voltaic II (3)
POS101 American Government and Politics (3) 🗳️
SKL115 Employment Readiness Part 1 (3)
SKL116 Employment Readiness Part 2 (3)
Elective (3) Consult CAC RET Advisor.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 📖

Computer Competency (3):

AGB124 Microcomputers in Agriculture
CIS110 Fundamentals of Computer Literacy or higher

OR

Transferable Computer Competency course (Consult the CEG.)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64-65 credits.

**SOLAR PHOTO VOLTAIC
TECHNICIAN CERTIFICATE**

Signal Peak Campus

Total Credits: 9

The Solar PV Technician Certificate program offers students the opportunity to gain experience, knowledge and safety practices of solar photo voltaic systems.

Recommended Proficiencies

Students must understand basic electricity and the lethal dangers of both alternating current (AC) and more specifically the characteristics of direct current (DC).

Core Requirements (9)

ELC126 Residential Wiring (3)
ELC201 Solar Photo Voltaic I (3)
ELC202 Solar Photo Voltaic II (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

SPORTS AND FITNESS

**ATHLETIC TRAINING EDUCATION
PROGRAM A.A. DEGREE**

Signal Peak Campus

Total Credits: 60-64

The Athletic Training Education Program (ATEP) A.A. Degree provides both academic instruction and hands-on clinical application to prepare the student to transfer an Associate of Arts degree with a specialization in Athletic Training to an accredited university. Athletic training education includes taping, rehabilitation, modalities, practice, and event coverage of varsity athletic teams.

Recommended Proficiencies

Previous experience in a High School athletic program is desirable but not necessary.

College level reading, writing and oral communication skills recommended.



General Education Requirements

AGEC-A (35-36)

Written Communications (6)

ENG101 English Composition III (3) 

ENG102 English Composition IV (3) 

Oral Communications (3)

Select an AGEC course.


For the following two categories, select courses from different disciplines to total 15 credits:

Arts and Humanities (6-9)


Select one Arts and one Humanities AGECE course.


Social and Behavioral Sciences (6-9)

Select AGECE courses from at least two different disciplines.

PSY101 Introduction to Psychology (3) 


Physical and Biological Sciences (8)

BIO201 Human Anatomy and Physiology I (4) 

BIO202 Human Anatomy and Physiology II (4) 

Or select an AGECE Lab course.

Mathematics (3-4)

MAT141 College Mathematics, Standard (4)  or higher

Subject Options (0-6)

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor and see the Major Guides at

<http://aztransfer.com/college/>

Special Awareness Requirements (0-9)

Select AGECE courses to fulfill these requirements:

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry;
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender);
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness.

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives, may also be used to satisfy the three (3) Special Requirements categories. A course may not be used to satisfy more than one Special Requirements category.

Core Requirements (26)

- PED104 Anatomical Kinesiology (3)
- PED108 Introduction to Athletic Training (3)
- PED109A Athletic Training Practicum I (2)
- PED109B Athletic Training Practicum II (2)
- PED109C Athletic Training Practicum III (2)
- PED109D Athletic Training Practicum IV (2)
- PED112 Introduction to Strength Training (3)
- PED209 Introduction to Rehabilitation Techniques (3)
- PEH101 Personal Health (3)
- PEH200 Sports Safety Training/ CPR/AED for the Professional Rescuer (3)

Other Requirements (3)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputers in Agriculture (3)

OR

CIS120 Survey of Computer Information Systems (3) 

Students must earn:

- a grade of "C" or better in each A.A. degree required course;
- a minimum of 20 credits from CAC which includes the AGECE-A requirements.

Other A.A. Degree Requirements

Some A.A. Degrees require up to 16 credits of a Second Language to demonstrate proficiency. Many four-year degrees require either a second or fourth semester of a second language and students are encouraged to complete this requirement at the community college prior to transfer.

Check your university catalog, Major Guides at <http://aztransfer.com/college/> or meet with an academic advisor. Students may demonstrate proficiency by completion of coursework and/or a proficiency test.

Students undecided about their major are encouraged to complete a fourth semester of a second language. CAC offers Spanish, French, Sign Language and other Foreign Languages and Literatures. Contact an academic advisor for assistance.

This A.A. Degree requires 60-64 semester credits.



GROUP FITNESS INSTRUCTOR CERTIFICATE

Signal Peak Campus

Total Credits: 19

Upon completion, the student will be eligible to sit for certification as an American Council on Exercise (ACE) Group Fitness Instructor. The Group Fitness Instructor Certificate core focuses on the foundations necessary to successfully compete and succeed in the fitness industry as a Certified Group Fitness Instructor. Courses include introductions to biomechanics, sports nutrition, sports psychology, motor development, exercise physiology, injury prevention, emergency procedures and health screening.

Recommended Proficiencies

College-level reading, writing and oral communication skills recommended.

Core Requirements (19)

NTR141	Nutrition and Wellness (4)
PED103	Foundations of Exercise (3)
PED104	Anatomical Kinesiology (3)
PEH200	Sports Safety Training (3)
PSY101	Introduction to Psychology (3)

Three Physical Activity Courses required (3)

The following courses are recommended:

PAC101J	Basic and Beginning Techniques of Weight Training (1)
PAC101K	Basic and Beginning Techniques of Yoga (1)
PAC105	Physical Fitness: Core Emphasis (1)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

HUMAN PERFORMANCE CERTIFICATE

Signal Peak Campus

Total Credits: 19

Upon completion of this Human Performance Certificate, the student will be eligible to sit for certification as an American Council on Exercise (ACE) Personal Trainer. The program core focuses on the foundations necessary to successfully compete and succeed in the fitness industry as a Certified Personal Trainer. Courses include introductions to biomechanics, sports nutrition, sports psychology, motor development, exercise physiology, injury prevention, emergency procedures and health screening.

Recommended Proficiencies

College level reading, writing and oral communication skills recommended.

Core Requirements (19)

BUS100	Introduction to Business (3)
NTR141	Nutrition and Wellness (4)
PED103	Foundations of Exercise (3)
PED104	Anatomical Kinesiology (3)
PEH200	Sports Safety Training (3)

Three Physical Activity Courses required (3)

The following courses are recommended:

PAC101J	Basic and Beginning Techniques of Weight Training (1)
PAC101K	Basic and Beginning Techniques of Yoga (1)
PAC105	Physical Fitness: Core Emphasis (1)
OR any PAC course.	

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



RECREATION AND TOURISM MANAGEMENT A.A.

Signal Peak Campus

Total Credits: 68

This A.A. Degree prepares students for employment in recreation and tourism management and program delivery positions in diverse public, nonprofit and private organizations such as municipal and county parks and recreation departments, state and national resource agencies, YMCAs, Boys and Girls Clubs of America, and other nonprofit agencies, clinical rehabilitation centers, hospitals, visitor and convention bureaus, senior centers, resorts, destination management companies and other components of the tourism/commercial recreation industry. Since this Degree includes the AGEC-A, general education requirements, students may choose to transfer the Degree to a university to earn additional credentials.

Recommended Proficiencies

College level reading, writing and oral communication skills recommended.

Prerequisite

RDG094 College Reading

General Education Requirements AGEC-A (35-36)

Written Communications (6)

ENG101 English Composition III (3)

ENG102 English Composition IV (3)

Oral Communications (3)

COM263 Intercultural Communication (3)

For the following two categories, for each category select courses from different disciplines to total 15 credits:

Arts and Humanities (6-9)

Select a minimum of one Art (3) and one Humanities (3) AGEC course.

Social and Behavioral Sciences (6-9)

ECN202 Principles of Microeconomics (3)

AND

Select additional AGEC courses from different disciplines.

Physical and Biological Sciences (8)

ENV101 Environmental Science (4)

NTR141 Nutrition and Wellness (4)

OR

Select any two Physical and Biological Science AGEC courses.

Mathematics (3-4)

MAT141 College Mathematics, Standard (4)
or higher

Subject Options

Based on your major, review the specific A.A. Degree requirements in the CAC catalog, consult an academic advisor and see the Transfer Guides at <http://aztransfer.com/college/>

Special Awareness Requirements (0-9)

Select AGEC courses to fulfill these requirements.

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry.
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender).
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness.

Note: Courses used in other areas, such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences, or Transfer Electives, may also be used to satisfy the three Special Requirements categories. A course may not be used to satisfy more than one Special Requirements category.

Core Requirements (30)

BUS100 Introduction to Business (3)

HRM100 Introduction to Hospitality (3)

REC101 Recreation, Leisure, and the Quality of Life (3)

REC108 Recreation Practicum (3)

REC203 Leisure Delivery Systems (3)

REC220 Introduction to Nonprofit Youth and Human Service Agencies (3)

REC230 Program Planning (3)



REC250 Leadership in Recreation (3)

AND

Select two of the following courses (6):

ACC201 Financial Accounting (3)

BUS190 Principles of Management and Leadership (3)

HRM102 Management of Guest Services (3)

HRM252 Managing Hospitality Human Resources (3)

Other Requirements (3)

Reading Competency: RDG094 College Reading

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3)

Other A.A. Degree Requirements

Students must earn a grade of "C" or better in all required courses.

Students must earn a minimum of 20 credits from CAC.

This A.A. Degree requires 68 semester credits.

**RECREATION MANAGEMENT
CERTIFICATE**

Signal Peak Campus

Total Credits: 19

This Certificate prepares students for employment in recreation and tourism management and program delivery positions in diverse public, nonprofit, and private organizations such as municipal and county parks and recreation departments, state and national resource agencies, YMCAs, Boys and Girls Clubs of America, and other nonprofit agencies, clinical rehabilitation centers, hospitals, visitor and convention bureaus, senior centers, resorts and spas, destination management companies and other components of the tourism/commercial recreation industry.

Recommended Proficiencies

College-level reading, writing and oral communication skills recommended.

Core Requirements (19)

HRM100 Introduction to Hospitality (3)

PAC Any Physical Activity Course (1)

PED102 The Management of Sport (3)

REC101 Recreation, Leisure, and the Quality of Life (3)

REC108 Recreation Practicum (3)

REC203 Leisure Delivery Systems (3)

REC230 Program Planning (3)

OR

REC250 Leadership in Recreation (3)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

SPORTS MANAGEMENT A.A.

Signal Peak Campus

Total Credits: 69

The Sports Management Degree prepares individuals to meet the needs of the sports industry. Students completing this degree will be exposed to sport promotion, health and fitness center management, sporting goods management/sales, and the successful operation of numerous types of sport organizations, ranging from various professional teams/leagues, to many national and international amateur sports organizations, federations, conferences, and associations.

The program's Business core focuses on the basics of accounting, computer information systems, marketing, management, the legal environment of business, human relations, and supervisory techniques. The program's Sports/Fitness core focuses on the basics of the history/philosophical foundations of sport/physical education, strength/athletic training, sports nutrition, lifetime fitness/wellness, sports safety training, and physical activity.

Recommended Proficiencies

High School diploma or GED; College-level reading, writing and oral communication skills recommended.

Prerequisite

RDG094 College Reading (3)



General Education Requirements (35-36)

Written Communications (6)

ENG101 English Composition III (3)
ENG102 English Composition IV (3)

Oral Communications (3)

COM263 Intercultural Communication (3)
This course also satisfies the Special Awareness Requirement for Cultural Awareness (Ethnic/Race/Gender)

Arts (3)

MHL100 Music Appreciation (3)

OR

MHL207 Survey of Jazz/Popular Music (3)
These courses also satisfy the Special Awareness Requirement for Global/International and Historical Awareness.

Humanities (3)

PHI105 Introduction to Ethics (3) *(Recommended)*
This course also satisfies the Special Awareness Requirement for Intensive Writing/Critical Inquiry.

Social and Behavioral Sciences (9)

ECN201 Principles of Macroeconomics (3)
MSC101 Media and Society (3)
PEH101 Personal Health (3)

Physical and Biological Sciences (8)

NTR141 Nutrition and Wellness (4) AND
BIO160 Introduction to Human Anatomy and Physiology (4)

Mathematics (3-4)

MAT141 College Mathematics, Standard (4) or higher

Special Awareness Requirements (0-9)

Select courses from the AGECE list to fulfill these requirements:

1. At least three semester credits of coursework in Intensive Writing and Critical Inquiry (Fulfilled by the General Education Humanities Requirement)
2. At least three semester credits of coursework in Cultural Awareness (Ethnic/Race/Gender) (Fulfilled by the General Education Oral Communication Requirement)
3. At least three semester credits of coursework in Global/International Awareness or Historical Awareness (Fulfilled by the General Education Arts Requirement)

Note: Courses used in areas such as Oral Communications, Arts and Humanities, Social and Behavioral Sciences may also be used to satisfy requirements in the three Special Awareness Requirements categories. A course may not be used to satisfy more than one Special Awareness Requirements category.

Core Requirements (30)

Business Core (12)

ACC201 Financial Accounting (3)
BUS123 Business Relations (3)
BUS190 Principles of Management and Leadership (3)
BUS201 Legal Environment of Business (3)

Sports and Fitness Core (18)

PED100 History and Philosophical Foundations of Sport and Physical Education (3)
PED102 The Management of Sport (3)

Select four of the following courses (12):

PED101 History of Intercollegiate Athletics (3)
PED105 Women and Sport in the U.S. (3)
PED108 Introduction to Athletic Training (3)
PED112 Introduction to Strength Training (3)
PEH200 Sports Safety Training (3)

Other Requirements (4)

PAC or DAN course (1)
Reading Competency: RDG094 College Reading

Computer Competency (3):

CIS120 Survey of Computer Information Systems or higher

Students must earn a grade of "C" or better in all required courses.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale
- a minimum of 20 credits from CAC.

This A.A. Degree requires 69 credits.



TECHNOLOGY

COMPUTER AIDED DESIGN CERTIFICATE

Signal Peak Campus

Total Credits: 25

This Certificate offers preparation for entry-level positions in computer aided design and drafting.


Core Requirements (15)

DFT127 Autocad I (3)
DFT128 Autocad II (3)
MAT118 Essential Mathematics (4) or higher

Select one of the following (3):

DFT130 Advanced Computer Aided Drafting
Applications (1) (*Register three terms to earn
3 credits*)
DFT131 Autocad III (3)

Select one of the following (3):

COM100 Fundamentals of Human Communication (3) 
ENG121 Applied Technical Writing (3)

Electives (10)

Select 10 credits from any of the following areas:

CET Civil Engineering Technology
CIS Computer Information Systems
DFT Drafting
ELC Electricity
ELT Electronics
HEO Heavy Equipment Operator
WLD Any Welding course

OR

MAT121 Intermediate Algebra, Standard (4) (*If not used
above*)

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.

WELDING TECHNOLOGY A.A.S.


Signal Peak Campus

Total Credits: 71

The Welding Degree prepares students for employment as a welder/fabricator with an array of career opportunities within the industry. Topics include welding processes of shielded metal arc welding, gas tungsten arc welding, gas metal arc welding, pipe welding, welding design and fabrication, blueprint reading for welders and autocad skills. A typical graduate seeks employment in mining, steel fabrication, steel erection, process piping, pipeline and related facilities, aerospace and manufacturing industries and other industries. After completion of this degree, students may apply for a Certificate in Drafting.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3) 
OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select an AGECE COM course.

Arts and Humanities (3)

Select an AGECE Art, Humanities, Literature, Music, Philosophy or a Theater course numbered 100 or higher.

Social and Behavioral Sciences (3)

Select an AGECE Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course, or a Social and Behavioral Science AGECE course.

Physical and Biological Sciences (4)

Select an AGECE Agriculture, Astronomy, Biology, Chemistry, Geology, Environmental Science, Nutrition or Physics course numbered 100 or higher, or a Physical and Biological Sciences AGECE course.

Mathematics (3)

BUS101 Business Mathematics (3)

OR

MAT118 Essential Mathematics (4) or higher

Core Requirements (42)

DFT127 Autocad I (3)
DFT128 Autocad II (3)
DFT131 Autocad III (3)
MET125 Principles of Fabrication (3)
WLD110 Survey of Welding Processes (3)



WLD121	Shielded Metal Arc Welding I (3)
WLD122	Shielded Metal Arc Welding II (3)
WLD125	Pipe Welding I (3)
WLD128	Blueprint Reading for Welders (3)
WLD221	Gas Tungsten Arc Welding (3)
WLD222	Gas Metal Arc Welding (3)
WLD225	Shielded Metal Arc Welding III(3)
WLD227	Welding Design and Fabrication (3)
WLD227	Welding Design and Fabrication (3)

(Must be taken twice for a total of 6 credits)

Select two courses (6):

BUS100	Introduction to Business (3)
BUS122	Small Business Management (3)
BUS123	Business Relations (3)
BUS190	Principles of Management and Leadership (3)
WLD196	Welding Technology Internship I (3)

Other Requirements (4)

PAC or DAN course (1)
Reading Competency: RDG094 College Reading

Computer Competency (3):

AGB124	Microcomputers in Agriculture (3)
CIS110	Fundamentals of Computer Literacy (3) or higher

Students intending to transfer to a B.A.S. Degree or other bachelor's degree should consult a CAC advisor.
Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires a minimum of 71 credits.



WELDING CERTIFICATE

Signal Peak Campus



Total Credits: 30

The Welding Certificate prepares students for employment as an entry level welder/fabricator with an array of career opportunities within the industry. Topics include welding processes of shielded metal arc welding, gas metal arc welding, pipe welding, welding design and fabrication, blueprint reading for welders and autocad skills. A typical graduate seeks employment in mining, steel fabrication, steel erection, process piping, pipeline and related facilities, manufacturing industries. After completion of this certificate, students may continue on towards an AAS in Welding.

General Education Requirements (6)

Written Communications (3)

Select one of the following (3):

ENG101 English Composition III (3)  

OR

ENG121 Applied Technical Writing (3)

Mathematics (3-4)

MAT118 Essential Mathematics (4)

OR

MAT106 Technical Math I (3) *(Instructor consent only)*

Core Requirements (21)

WLD121	Shielded Metal Arc Welding I (3)
WLD122	Shielded Metal Arc Welding II (3)
WLD128	Blueprint Reading for Welders (3)
WLD221	Gas Tungsten Arc Welding (3)
WLD222	Gas Metal Arc Welding (3)
WLD225	Shielded Metal Arc Welding III (3)
WLD227	Welding Design and Fabrication (3)

Electives (3)

Select one of the following (3):

DFT127	AutoCAD I (3)
DFT128	AutoCAD II (3)
DFT131	AutoCAD III (3)
WLD120	Oxy-Acetylene Welding (3)
WLD125	Pipe Welding I (3)

Other Requirements

Students must earn:

- a grade of "C" or better in all required courses;
- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the certificate credits from CAC.



DEGREES AND CERTIFICATES WITH SPECIAL REQUIREMENTS

The following certificates and degrees are considered closed enrollment and are **for specific audiences only**. Student populations identified in the description of each certificate or degree are the only group that may enroll in these degree programs.

BUILDING CONSTRUCTION TECHNOLOGY

CARPENTRY TRADES A.A.S.

District-Wide

Total Credits: 64

The Carpentry Trades AAS Degree prepares the student to work in all carpentry aspects of the construction process, erecting business and living spaces. The Associate degree program is designed to provide the student with general knowledge and skills including the areas of communication, humanities, and social and behavioral sciences, in addition to trade skills. *Open to Southwest Carpenters Training Fund sponsored students only. For open enrollment carpentry programs, see the Building Construction Technology listings in the previous section of this catalog.*

Prerequisite

Program director consent.

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)  

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course numbered 100 or above.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre courses numbered 100 or above.

Social and Behavioral Sciences (3)

Select one 3-credit course numbered 100 or higher in anthropology, economics, geography, history, political science, psychology, sociology, social science or ethics studies.

Physical and Biological Sciences (4)

Select a Biological or Physical Science course numbered 100 or above.

Mathematics (3-4)

MAT101 Essential Mathematics (3) or higher

OR

BUS101 Business Mathematics (3)

Core Requirements (41 credits)

CRP101 Blueprint Reading for Carpenters (2)

OR

DWL103 Blueprint Reading I for Drywall/Lath (2)

CRP102 Carpentry Health and Safety (2)

OR

DWL101 Drywall/Lath Health and Safety (2)

CRP103 Carpentry Orientation (2)

OR

DWL102 Drywall/Lath Orientation (2)

CRP104 Scaffolding Certification (2)

CRP105 Metal Framing for Carpenters (2)

OR

DWL104 Basic Drywall Framing (2)

CRP106 Box Culverts (2)

CRP107 Stairs and Ramps (2)

CRP109 Panelized Roof Structure (2)

CRP110 Foundations and Flatwork (2)

CRP126 Wall Framing (2)

CRP132 Concrete Wall Forms (2)

CRP201 Roof Framing and Exterior Decks (2)

CRP202 Paten Forms, Gang Forms, and Columns (2)

CRP203 Cabinet Installation and Construction (2)

CRP206 Builders Level and Transit (2)

CRP207 Doors, Hardware, and Running Trims (2)

With CAC Program Director's consent, the following electives may be substituted for one or more of the above courses:



DEGREES AND CERTIFICATES

CRP108 Exterior Building Details (2)
CRP204 Rigging Certification (2)
WLD110 Survey of Welding Processes (3)

Electives (9)

Select electives numbered 100 or above to meet A.A.S. degree 65 credit requirement.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputer in Agriculture (3)
OR
CIS110 Fundamentals of Computer Literacy (3) or higher

Students must earn:

- a grade of “C” or better in all required courses;
- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64 semester credits.

CARPENTRY TRADES CERTIFICATE

District-Wide

Total Credits: 16-32

This Certificate prepares students to work in every aspect of carpentry. The student will become proficient at reading blueprints, working with wood and other building materials, building scaffolding, and erecting living and office spaces. *Open to Southwest Carpenters Training Fund sponsored students only. For open enrollment carpentry programs, see the Building Construction Technology listings in the previous section of this catalog.*

Prerequisite

Program director consent.

Core Requirements (16-32)

Students should select between 16 and 32 credits from the following courses in consultation with Southwest

Carpenter's Training Fund and CAC Program Director.

CRP101 Blueprint Reading for Carpenters (2)
OR
DWL103 Blueprint Reading I for Drywall/Lath (2)

CRP102 Carpentry Health and Safety (2)
OR
DWL101 Drywall/Lath Health and Safety (2)

CRP103 Carpentry Orientation (2)
OR
DWL102 Drywall/Lath Orientation (2)

CRP105 Metal Framing for Carpenters (2)
OR
DWL104 Basic Drywall Framing (2)

CRP104 Scaffolding Certification (2)
CRP106 Box Culverts (2)
CRP107 Stairs and Ramps (2)
CRP108 Exterior Building Details (2)
CRP110 Foundations and Flatwork (2)
CRP126 Wall Framing (2)
CRP132 Concrete Wall Forms (2)
CRP201 Roof Framing and Exterior Decks (2)
CRP202 Paten Forms, Gang Forms, and Columns (2)
CRP203 Cabinet Installation and Construction (2)
CRP206 Builders Level and Transit (2)
CRP207 Doors, Hardware, and Running Trims (2)

With CAC Program Director's consent, the following electives may be substituted for one or more of the above courses:

CRP109 Panelized Roof Structure (2)
CRP204 Rigging Certification (2)
WLD110 Survey of Welding Processes (3)

Other Requirements

Certificate of Completion must be approved by the CAC Program Director.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 16 of the required Certificate credits through CAC.



DRYWALL/LATH A.A.S.

Casa Grande Center

Total Credits: 64

The Carpentry Trades AAS Degree prepares the student to work in all carpentry aspects of the construction process, erecting business and living spaces. The Associate degree program is designed to provide the student with general knowledge and skills including the areas of communication, humanities, and social and behavioral sciences, in addition to trade skills. *Open to Southwest Carpenters Training Fund sponsored students only. For open enrollment carpentry programs, see the Building Construction Technology listings in the previous section of this catalog.*

Prerequisite

Program director consent.

General Education Requirements (19-20)

Written Communications (3)

ENG101 English Composition III (3)  

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select a COM course numbered 100 or above.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre courses numbered 100 or above.

Social and Behavioral Sciences (3)

Select one 3-credit course numbered 100 of higher in anthropology, economics, geography, history, political science, psychology, sociology, social science or ethics studies.

Physical and Biological Sciences (4)

Select a Biological or Physical Science course numbered 100 or above.

Mathematics (3-4)

MAT101 Essential Mathematics (3) or higher

OR

BUS101 Business Mathematics (3)

Core Requirements (41 credits)

CRP104 Scaffolding Certification (2)

DWL100 Basic Drywall Lathing (2)

DWL101 Drywall/Lath Health and Safety (2)

OR

CRP102 Carpentry Health and Safety (2)

DWL102 Drywall/Lath Orientation (2)

OR

CRP103 Carpentry Orientation (2)

DWL103 Blueprint Reading I for Drywall/Lath (2)

OR

CRP101 Blueprint Reading for Carpenters (2)

DWL104 Basic Drywall Framing (2)

OR

CRP105 Metal Framing for Carpenters (2)

DWL201 Advanced Drywall Framing - Ceilings and Soffits (2)

DWL202 Acoustical Drywall (2)

DWL203 Blueprint Reading II for Drywall/Lath (2)

DWL208 Advanced Drywall Framing - Curves & Arches (2)

DWL209 Advanced Drywall Framing – Suspended

WLD110 Survey of Welding Processes (3)

With CAC Program Director's consent, the following electives may be substituted for one or more of the above courses:

DWL204 Drywall Exterior Insulation Finish Systems (EIFS) (2)

DWL205 Freeform Lathing (2)

DWL206 Drywall Finishing and Taping (2)

DWL207 Firestopping and MSDS (1)

Electives (16)

Select electives numbered 100 or above to meet A.A.S. degree 64 credit requirement.

Other Requirements (4)

PAC or DAN Course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

AGB124 Microcomputer in Agriculture (3)

OR

CIS110 Fundamentals of Computer Literacy (3) or higher

Students must earn:

- a grade of "C" or better in all required courses;
- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

This A.A.S. Degree requires 64 semester credits.



DRYWALL/LATH CERTIFICATE

Casa Grande Center

Total Credits: 25

This Certificate prepares students to work in every aspect of drywall/lath. Students will become proficient at reading blueprints, working with wood and other building materials, building scaffolding, and erecting living and office spaces.

Open to Southwest Carpenters Training Fund sponsored students only. For open enrollment carpentry programs, see the Building Construction Technology listings in the previous section of this catalog.

Prerequisite

Program director consent.

Core Requirements (25)

CRP104 Scaffolding Certification (2)

DWL100 Basic Drywall Lathing (2)

DWL101 Drywall/Lath Health and Safety (2)

OR

CRP102 Carpentry Health and Safety (2)

DWL102 Drywall/Lath Orientation (2)

OR

CRP103 Carpentry Orientation (2)

DWL103 Blueprint Reading I for Drywall/Lath (2)

OR

CRP101 Blueprint Reading for Carpenters (2)

DWL104 Basic Drywall Framing (2)

OR

CRP105 Metal Framing for Carpenters (2)

DWL201 Advanced Drywall Framing - Ceilings and Soffits (2)

DWL202 Acoustical Drywall (2)

DWL203 Blueprint Reading II for Drywall/Lath (2)

DWL208 Advanced Drywall Framing - Curves and Arches (2)

DWL209 Advanced Drywall Framing - Suspended Ceilings (2)

WLD110 Survey of Welding Processes (3)

With program director's permission, the following electives can be substituted for one or more of the above courses:

DWL204 Drywall Exterior Insulation Finish Systems (EIFS) (2)

DWL205 Freeform Lathing (2)

DWL206 Drywall Finishing and Taping (2)

DWL207 Drywall Firestopping and MSDS (1)

Other Requirements

Certificate of Completion must be approved by the CAC Program Director.

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of one-third of the required Certificate credits from CAC.



CORRECTIONS

CORRECTIONS A.A.S.

**Superstition Mountain Campus, Florence
and San Tan Centers**

Total Credits: 64

This Degree is designed to upgrade the skills and knowledge of Correctional Officers currently working in the field. Completion of the Arizona Correctional Officers Training Academy (COTA) Certificate program is required for



admission into the degree program. Upon successful completion of COTA, students are eligible to apply up to 21 credits towards the Corrections A.A.S. Degree, per CAO Memo: COTA Certified Completers dated 09/07/2012.

Prerequisites:

RDG094 College Reading
 Successful completion of (Arizona Correctional Officers Training Academy) Certificate (21 credits).

General Education Requirements (19-23)

Written Communications (3)

ENG101 English Composition III (3)
 OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

COM101 Interpersonal Communication (3)
 OR

COM263 Intercultural Communication (3)

Arts and Humanities (3)

PHI112 World Religions (3)

Social Behavioral Sciences (3)

Select one:

PSY101 Introduction to Psychology (3)

SOC101 Introduction to Sociology (3)

Physical and Biological Sciences (4)

Select an AGECE course with a laboratory component.

Mathematics (3-4)

MAT121 Intermediate Algebra, Standard (4) or higher MAT course

Core Requirements (42)

COTA Certification (21)

AJS101 Introduction to Administration of Justice (3)

AJS123 Ethics and the Administration of Justice (3)

AJS209 Substantive Criminal Law (3)

AJS240 The Corrections Function (3)

BUS190 Principles of Management and Leadership (3)

(*May be fulfilled by submission of official Sergeant Leadership Academy Certification to CAC Admissions)

CIS120 Survey of Computer Information Systems (3)

POS220 U.S. and Arizona Constitutions (3)

Electives (3)

Select 3 credits from the following courses:

AJS225 Criminology (3)

AJS275 Criminal Investigations (3)

PSY200 Social Psychology (3) or higher

SOC200 Racial and Ethnic Minorities (3)
 or higher

SPA Any Spanish course(s)

Other Requirements (0-4)

PAC or DAN (1) (Fulfilled by COTA physical training)

Reading Competency: RDG094 College Reading

Computer Competency (3):

CIS120 Survey of Computer Information Systems (3)
 (Fulfilled under Core Requirements)

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

The Corrections A.A.S. Degree requires 64 credits.

ADVANCED CORRECTIONS CERTIFICATE

Superstition Mountain Campus, Florence and SanTan Centers

Total Credits: 39

This Advanced Corrections Certificate is designed to upgrade the skills and knowledge of Correctional Officers currently working in the corrections field.

Prerequisites

RDG094 College Reading

Successful completion of Arizona Correctional Officers Training Academy Certificate (21 credits)

Core Requirements (36)

COTA Certification (21)

BUS190 Principles of Management and Leadership (3)

COM101 Interpersonal Communication (3)

OR

COM263 Intercultural Communication (3)

POS220 U.S. and Arizona Constitutions (3)

PSY101 Introduction to Psychology (3)

SOC100 Introduction to Sociology (3)



Electives (3)

- AJS101 Introduction to Administration of Justice (3)
 AJS275 Criminal Investigations (3)
 CIS120 Survey of Computer Information Systems (3)
 PHI112 World Religions (3)
 SPA Any Spanish course(s)
 SOC200 Racial and Ethnic Minorities (3) or above
 PSY200 Social Psychology (3) or above

*Corrections Officers who have the rank of Sergeant or higher are required to request the Department of Corrections submit, to CAC Admissions, an official copy of their Sergeant Leadership Academy Certificate of Completion to receive credit for BUS190.

Other Requirements

Students must earn:

- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- at least one-third of the Certificate credits from CAC.

DIESEL/HEAVY EQUIPMENT

HEAVY EQUIPMENT MECHANIC'S APPRENTICESHIP CERTIFICATE

Signal Peak Campus

Total Credits: 30

The Heavy Equipment Mechanic's Apprenticeship training is sponsored by the Arizona Chapter of Associated General Contractors (AGC) for repair and maintenance of heavy equipment to journeyman standards. Students must be sponsored by an AGC contractor and meet the AGC contractor's entry level proficiencies to enroll in this program.

Prerequisites

Students must be sponsored by an Associated General Contractor (AGC).

Core Requirements (30)

- AGC112 Introduction to Mechanical Technology (.5)
 AGC113 Introduction to Mechanical Technology Lab (1)
 AGC114 Equipment Preventive Maintenance (.5)
 AGC115 Equipment Preventive Maintenance Lab (.5)
 AGC116 Mobile Air Conditioning (1)
 AGC117 Mobile Air Conditioning Lab (1.5)
 AGC126 Electrical and Electronic Systems (1)
 AGC127 Electrical and Electronic Systems Lab (1.5)
 AGC128 Hydraulic Systems (1)
 AGC129 Hydraulic Systems Lab (1.5)
 AGC136 Chassis and Drive Systems (1)
 AGC137 Chassis and Drive Systems Lab (1.5)
 AGC138 Brakes, Steering, Suspension Systems (1)
 AGC139 Brakes, Steering, Suspension Systems Lab (1.5)
 AGC248 Diesel Engines I (2)
 AGC249 Diesel Engines I Lab (3)
 AGC258 Diesel Engines II (2)
 AGC259 Diesel Engines II Lab (3)
 AGC268 Systems Diagnostics and Reconditioning (2)
 AGC269 System Diagnostics and Reconditioning Lab (3)

Other Requirements

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

JOHN DEERE CONSTRUCTION AND FORESTRY EQUIPMENT TECHNOLOGY A.A.S.

Signal Peak Campus

Total Credits: 75

The John Deere Construction and Forestry Equipment Technology A.A.S. Degree prepares students for employment as diesel and heavy equipment technicians at John Deere Dealerships. Students must be sponsored by a John Deere Dealership; dealerships are located in Arizona, Nevada and California.

General Education Requirements (19-23)

Written Communications (3)

- ENG101 English Composition III (3) OR
 ENG121 Applied Technical Writing (3)



Oral Communications (3)

Select a COM course or an AGECE course if you plan to transfer to earn a bachelor's degree.

Arts and Humanities (3)

Select an Art, Humanities, Literature, Music, Philosophy or Theatre course numbered 100 or above, or an AGECE course.

Social and Behavioral Sciences (3)

Select an Anthropology, Economics, Geography, History, Political Science, Psychology or Sociology course numbered 100 or above, or an AGECE course.

Physical and Biological Sciences (4)

Select a course numbered 100 or above from biological or physical science disciplines, or an AGECE course.

Mathematics (3-4)

Select a college-level Mathematics course

BUS101 Business Mathematics (3) OR

MAT101 Essential Mathematics (4) or higher

Required Courses (55)

CFE101 John Deere Diesel Engines and Fuel Systems (12)

CFE102 John Deere Hydraulic and Electrical/Electronics Systems (12)

CFE201 John Deere Chassis and Drives (10)

CFE202 John Deere Heavy Equipment Reconditioning and Operations (10)

DIE222 Mobile Refrigeration (3)

DIE225 Preventive Maintenance (2)

WLD Any Welding course (3)

CIS Any Computer Competency Course (3)

Consult the CEG to determine course transferability.

Other Requirements (1-4)

PAC or DAN course (1)

Reading Competency: RDG094 College Reading 

Computer Competency (3):

CIS 110 Fundamentals of Computer Literacy (3) or higher (May be fulfilled in Required Courses)

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn a minimum of 20 credits from CAC.

The John Deere Construction and Forestry Equipment Technology A.A.S. Degree requires 75 credits.

OPERATOR'S APPRENTICESHIP PROGRAM CERTIFICATE (Associated General Contractors)

Signal Peak Campus

Total Credits: 30

Heavy Equipment Operator's Apprenticeship training is sponsored by the Associated General Contractors (AGC) for operation of heavy equipment to journeyman standards. Students must be sponsored by an Associated General Contractor (AGC).

Prerequisites

Students must be sponsored by an Associated General Contractor (AGC).

Required Courses (30)

AGC102 Introduction to Construction Math (1)

AGC103 Basic Safety (.5)

AGC104 Soils I (1)

AGC105 Grades I (1)

AGC106 Machine Orientation I (.5)

AGC107 Machine Operation I (1)

AGC121 Equipment Preventive Maintenance (1)

AGC122 Introduction to Earth Moving (1)

AGC123 Machine Orientation II (.5)

AGC124 Machine Operation II (2.5)

AGC131 Safety Part II (1)

AGC132 Rigging and Hoisting (1)

AGC133 Machines Theory I (1)

AGC134 Machine Operation III (2)

AGC141 Soils II (1)

AGC142 Grades II (1)

AGC143 Machines Theory II (1)

AGC144 Machine Operation IV (2)

AGC151 Machines Theory III (.5)

AGC152 Advanced Safety (1)

AGC153 Soils III (1)

AGC154 Machine Operation V (2.5)

AGC161 Finishing and Grading (1.5)

AGC162 Operator Supervision (1)

AGC163 Machine Operation VI (2.5)

Other Requirements

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn at least one-third of the Certificate credits from CAC.



SCHOOL BUSINESS ADMINISTRATION

SCHOOL BUSINESS ADMINISTRATION

A.A.S.

District-Wide

Total Credits: 64

The School Business Administration AAS Degree provides specialized workplace skills enhancing options for progressive or lateral career options in school business administration. This is a workforce degree and for AZ Association of School Business Officials (AASBO) only.

General Education Requirements (19-20)

Written Communications (3)

ENG101 English Composition III (3)  

OR

ENG121 Applied Technical Writing (3)

Oral Communications (3)

Select any AGECE COM course 100 level course or higher.

Arts and Humanities (3)

Select an AGECE Art or Humanities course numbered 100 or higher. Must be a different prefix than Social and Behavioral selection.

Social and Behavioral Sciences (3)

Select a Social and Behavioral Science AGECE course numbered 100 or higher. Must be a different prefix than Art and Humanities selection.

Physical and Biological Sciences (4)

Select any AGECE course 100 level course or higher.

Mathematics (3)

MAT141 College Mathematics, Standard (4) or higher

Core Requirements (38)

SBO124A SBO Budget and Finance (3)

OR

SBO124 Budget and Finance for SBO (2)

SBO125A SBO Purchasing (3)

OR

SBO125 Purchasing for SBO (2)

SBO126A SBO Food Service Operations (3)

OR

SBO126 Introduction to School Food Service (2)

SBO127A SBO Risk Management (3)

OR

SBO127 Risk Management for SBO (2)

SBO128A SBO Management (3)

OR

SBO128 School Business Management for SBO (2)

SBO130A SBO Accounting (3)

OR

SBO130 Accounting for SBO (2)

SBO131A SBO Maintenance and Operations (3)

OR

SBO131 Maintenance and Operations for SBO (2)

SBO132A SBO Personnel (3)

OR

SBO132 Personnel for SBO (2)

SBO133A SBO Information Technology (3)

OR

SBO133 Information Systems for SBO (2)

SBO134A SBO Transportation (3)

OR

SBO134 Transportation for SBO (2)

SBO180A Advanced Purchasing (3)

OR

SBO180 Advanced Purchasing (2)

SBO181A Advanced Budget and Finance (3)

OR

SBO181 Advanced Budget and Finance (2)

SBO182A Advanced Maintenance & Transportation (3)

OR

SBO182 Advanced Maintenance & Transportation (2)

SBO290 Business Manager Internship (no lab) (3)

SBOxxx 0.5 credit workshops not to exceed 8 credits

Other Requirements (7)

BUS123 Human Relations (3)

PAC or DAN course (1)

Computer Competency (3)

CIS120 Survey of Computer Information Systems (3) or higher

Reading Competency: RDG094 College Reading

Students must earn:

- a minimum grade of "C" in each required course;
- a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale;
- a minimum of 20 credits from CAC.

The Associate of Applied Science Degree requires a minimum of 64 credits.



SCHOOL BUSINESS ADMINISTRATION CERTIFICATE

District-Wide

Total Credits: 33

The School Business Administration Certificate provides specialized workplace skill enhancing options for progressive or lateral career options in school business administration. Designed only for AZ Association of School Business Officials (AASBO) members/employees.

Required Courses (33)

BUS123 Human Relations (3)

Track A - Select 30 credits:

- SBO124 Budget and Finance for SBO (2)
- SBO125 Purchasing for SBO (2)
- SBO126 Introduction to School Food Service (2)
- SBO127 Risk Management for SBO (2)
- SBO128 School Business Management for SBO (2)
- SBO130 Accounting for SBO (2)
- SBO131 Maintenance and Operations for SBO (2)
- SBO132 Personnel for SBO (2)
- SBO133 Information Systems for SBO (2)
- SBO134 Transportation for SBO (2)
- SBO180 Advanced Purchasing (2)
- SBO181 Advanced Budget and Finance (2)
- SBO182 Advanced Maintenance and Transportation (2)

SBO190 Practical Lab (1) (students must complete one credit of SBO190 for each SBO course selected above)

SBO290 Business Manager Internship (3)

Track B - Select 30 Credits:

- SBO124A SBO Budget and Finance (3)
- SBO125A SBO Purchasing (3)
- SBO126A SBO Food Service Operations (3)
- SBO127A SBO Risk Management (3)
- SBO128A SBO Management (3)
- SBO130A SBO Accounting (3)
- SBO131A SBO Personnel (3)
- SBO132A SBO Maintenance and Operations (3)
- SBO133A SBO Personnel (3)
- SBO134A SBO Transportation (3)
- SBO180A SBO Advanced Purchasing (3)
- SBO181A SBO Advanced Budget and Finance (3)
- SBO182A SBO Advanced Maintenance and Transportation (3)
- SBO290 Business Manager Internship (3)

A combination of courses from Track A and B are permitted, however do not duplicate content. Each Track A course (2 credits) requires the one credit SBO190 Practical Lab.

Track A and B students may select SBO290 Business Manager Internship (3 credits).

Other Requirements

Students must earn a cumulative grade point average (CGPA) of at least a 2.0 on a 4.0 scale.

Students must earn at least one-third of the Certificate credits from CAC.





Course Descriptions



Entertainment Technology Students perform during Rocktacular - Spring 2014



Course Delivery

Central Arizona College offers classes in a variety of modalities and formats for our students' convenience including on-site, face-to-face, hybrid, online, interactive television, open entry/closed exit and accelerated. While assignments and methods vary, all classes, regardless of modality or format, hold students to the same rigorous, high academic standards.

The course schedule indicates the delivery format of a class. Students are responsible for understanding the methods and expectations of the format for each course they choose prior to the first day of class. Information about online and hybrid classes can be found on the Central Arizona College website.

Prerequisites and Corequisites

A *prerequisite* is a requirement the student must meet prior to enrollment in a course. A *corequisite* is a requirement the student must meet concurrently with a course.

For a student to receive credit for a course that is a prerequisite or corequisite, the student must receive a grade of "C" or better in the course, complete a competency exam, or provide an equivalent assessment score.

"*Instructor consent*" may be secured directly from the course instructor and permits a student to enroll in a course without the prerequisite or corequisite; however, it does not guarantee a waiver of prerequisites or corequisites for any other course.

Dropping a corequisite will result in the student being withdrawn from the course requiring the corequisite.

Additional Options: Times for Credit and Grading

Courses may not be repeated for credit unless it is noted in the course description. Courses may not be repeated in the same semester.

Students may select "*Satisfactory/Unsatisfactory*" grading for courses if that option is noted in the course description; however, students may not choose "*Satisfactory/Unsatisfactory*" for courses applied to a certificate or degree.

SPECIAL COURSES

088/098 Selected Topic, Developmental

Various Credits

Developmental instruction in a specific discipline such as English, mathematics, reading, social sciences and other areas is offered to provide a foundation for college-level course work.

196/296 Internships

Credit Varies

Courses in the 196 or 296 series offer internship opportunities to fulfill credential requirements and/or help introduce students to the workforce. For internship opportunities in addition to the 196 and 296 courses, please contact CAC's Coordinator for Experiential Learning at 520-494-5987.

197/297 Career Advancement

Up to 4 Credits

Courses in the 197 or 297 series offer a combination of on-the-job and related college training with the flexibility to meet students' specialized vocational needs. Courses may be offered in any discipline with appropriate approvals and may be repeated for credit.

198/298 Selected Topics

Credit Varies

Courses in the 198 or 298 series offer special and current topics on a short-term basis. Selected topics can be in the form of a class or special offering in any discipline with appropriate approvals. These classes may not transfer and are degree applicable only with special approval.

APPROVED COURSES

The following list of Central Arizona College academic courses includes courses which are offered every semester as well as courses offered only on a cyclical program basis. Please see the Class Schedule for a listing of currently offered courses. Also, consult an academic advisor for guidance to efficiently and effectively complete your academic goals.

SUN# Shared Unique Number System

The Shared Unique Number (SUN) code for select general education and major preparation courses offers Arizona course transfer information. The SUN designation/icon indicates transferability within the Arizona Transfer System that includes the three public universities and select public and tribal community colleges. For specific course transferability status based on the term taken and a grade of "C" or better, consult the Course Equivalency Guide (CEG) on the AZTransfer website: <http://aztransmac2.asu.edu/cgi-bin/WebObjects/CEG>.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*


Reading Required: RDG094: 

SUN Course: 



COURSE DESCRIPTIONS

Arizona General Education Curriculum (AGEC)

The Arizona General Education Curriculum (AGEC)  icon indicates the course is approved to fulfill one or more AGEC categories.

The AGEC provides students attending any Arizona public community college with the opportunity to build a general education curriculum that is transferable upon completion to another Arizona public community college or university. The AGEC has three forms: the **AGEC-A** (35-36 credits), **AGEC-B** (35-36 credits) and **AGEC-S** (35-37 credits).

Arizona community and tribal colleges are obligated to accept AGEC coursework from another Arizona public community or tribal postsecondary institution. CAC accepts AGEC approved courses from Arizona colleges and universities and applies them toward CAC AGEC requirements.

The certified CAC **AGEC Certificate** (35 credits) is transferable from one Arizona public community college to another Arizona public community college as well as from an Arizona public community college to an Arizona public university.

AGEC Grandfather Clause


CAC accepts transferred general education courses toward AGEC requirements, provided the courses were taken prior to Fall 1999 and the current course equivalent at CAC fulfills one or more AGEC requirements. Students must provide evidence of fulfilling the Intensive Writing AGEC requirement.

Cross Listed Courses

Courses indicated as cross listed with another course are courses that are identical in content. Students will only receive credit for one of the two courses. Consult an academic advisor to determine the best course to achieve your academic goal.

ACCOUNTING (ACC)


ACC100 Fundamentals of Accounting

3 Credits (3 Lectures) 


Typically Offered: Fall, Spring and Summer

The basics of accounting for a small business with emphasis on recording transactions, posting to the general ledger, preparing financial statements, recording payroll, accounting for inventory and accrual accounting. *Prerequisite:* RDG094.



ACC121 Income Tax Fundamentals

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

Theory, rules and procedures used in preparing federal income tax returns for individuals. *Prerequisite:* RDG094. *Recommended:* ACC100 or ACC201  or previous accounting experience.


ACC201 Financial Accounting

3 Credits (3 Lectures)  ACC 2201 


Typically Offered: Fall, Spring and Summer

Theory and practice of accounting applicable to the accumulation, reporting and uses of financial information. *Prerequisite:* RDG094.

ACC202 Managerial Accounting

3 Credits (3 Lectures)  ACC 2202


Typically Offered: Fall, Spring and Summer

Selection and analysis of accounting information for internal organization use by management. *Prerequisite:* ACC201 .

ACC222 Payroll Accounting

3 Credits (3 Lectures)


Typically Offered: Spring

Functions and practical operation of payroll accounting, with examinations of current payroll tax laws, methods of computing wages and salaries, timekeeping methods and microcomputer software for payroll systems. *Prerequisites:* ACC100 OR ACC201 .

ACC226 Accounting with QuickBooks Pro®

3 Credits (3 Lectures)

Typically Offered: Fall, Spring

Practical application of accounting utilizing QuickBooks Pro. Topics covered will include the general ledger, accounts receivable, accounts payable, job costing, payroll and inventory. *Prerequisite:* ACC100 OR ACC201 .

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



ACC227 Accounting with Sage 50 Complete®

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Practical application of accounting concepts utilizing Sage 50 Complete® (formerly Peachtree®). This course covers: accounts payable, accounts receivable, payroll, inventory, job costing, fixed assets, and time and billing features of Sage 50 Complete®. *Prerequisite:* ACC100 OR ACC201 or instructor consent. *Note:* Students with accounting experience may request an instructor waiver.

ADMINISTRATION OF JUSTICE (AJS)

AJS101 Introduction to Administration of Justice

3 Credits (3 Lectures) AJS1101

Typically Offered: Fall, Spring and Summer

History and philosophy of the Criminal Justice System. Organization and jurisdiction of local, state and federal law enforcement, judicial and correctional systems. Career opportunities and qualifying requirements, terminology and constitutional precedence. *Prerequisite:* RDG094.

AJS110 Public Safety Dispatch Education and Training

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule.

An introduction to the theories, methods and techniques of public safety dispatching for police, fire and EMS agencies to include actual scenario-based instruction and practice.

AJS122 Traffic Control

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule.

Analysis of traffic control, fundamentals of traffic accident investigation and motor vehicle law, including Arizona laws.

AJS123 Ethics and the Administration of Justice

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Explore ethical issues in the justice system. Focus on ethics and the law, the police, the courts and corrections. Review ethical theory related to the administration of justice.

Prerequisite: RDG094.

AJS124 Defense Tactics

3 Credits (2.75 Lectures, 1 Lab)

Typically Offered: Consult CAC Class Schedule.

Physical control of suspects, including handcuffing, search security, baton, come-alongs and defense tactics. *Prerequisites:* Certification of Good Health.

AJS130 Firearms

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Consult CAC Class Schedule.

Firearm safety, marksmanship, combat shooting, and legal responsibilities.

AJS140 Communications in Law Enforcement

3.5 Credits (3 Lectures, 2 Labs)

Typically Offered: Consult CAC Class Schedule.

Use of modern technology in gathering and processing information, written reports and techniques of police radio use.

AJS209 Substantive Criminal Law

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Philosophy of legal sanctions and historical development from common law to modern American criminal law, classifications of crimes, elements of and parties to crimes, general definitions of crimes and common defense. *Prerequisite:* AJS101 .

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



AJS210 Constitutional Law

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Focus on selected aspects of civil liberties and civil rights in the United States. Emphasis is on the Constitution and the United States Supreme Court cases that delineate the legal doctrines relevant to defining the Constitution's guarantees of liberty. *Prerequisite:* AJS101 or POS101 .

AJS212 Juvenile Justice Procedures

3 Credits (3 Lectures)

Typically Offered: Fall

History and development of juvenile justice theories, procedures and institutions. *Prerequisite:* SOC101 or AJS101 .

AJS222 Criminalistics

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction to the scientific aspects of criminal investigation and the crime laboratory's role in the criminal justice system. Emphasis on the collection, preservation and transportation of evidence and the techniques of examining physical evidence to include modern criminalistic research developments. *Prerequisite:* AJS101 .

AJS224 Police Administration

3 Credits (3 Lectures)

Typically Offered: Fall

Principles of administration, organization and management; responsibilities and interrelationships of administrative and line-and-staff services; and analysis of functional divisions of modern police and correctional operations. *Prerequisite:* AJS101 .

AJS225 Criminology

3 Credits (3 Lectures) IW

Typically Offered: Fall, Spring and Summer

Theories of criminality and the economic, social and psychological impact of crime, victimization and relationships between statistics and crime trends. *Prerequisite:* AJS101 or SOC101 . *Corequisite:* ENG102 .

AJS230 The Police Function

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Theories of procedures and methods of operation of public police emphasizing discretionary powers, with a survey of career opportunities and current trends in law enforcement. *Prerequisite:* AJS101 .

AJS240 The Corrections Function

3 Credits (3 Lectures)

Typically Offered: Spring

History and development of correctional theories and institutions. *Prerequisite:* AJS101 .

AJS260 Procedural Criminal Law

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction to procedural criminal law; focusing on court holdings, procedural requirements, and effect on the daily operations of law enforcement. *Prerequisite:* AJS101 .

AJS270 Community Relations

3 Credits (3 Lectures)

Typically Offered: Spring

Recognition and understanding of community problems; methods of coping with crisis situations, victimology, ethnic and minority cultures; and cooperating with personnel in community action programs and local police operations. *Prerequisite:* AJS101 .

AJS275 Criminal Investigations

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Theory of criminal investigation, crime scene procedures, case preparation, interviewing and basic investigative techniques. *Prerequisite:* AJS101 .

AJS295 Internship

3 Credits (Internship)

Typically Offered: Spring

Internship in the Criminal Justice field to provide employment experience. *May be taken two times for credit; may only use once for elective credit. Prerequisite:* AJS101 .

ICON LEGEND:

AGEC:

Intensive Writing: IW

Reading Required: RDG094:

SUN Course:



AGRICULTURE BUSINESS (AGB)

AGB100 Introduction to Agriculture Business

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Entrepreneurship in agribusiness, including marketing, budgeting, financial statements, purchasing, business structure, customer relations and inventory control.

AGB121 Fundamentals of Agricultural and Environmental Economics

3 Credits (3 Lectures)

Typically Offered: Spring

An introductory analysis of the agriculture economy addressing economic principles, farm management and marketing of agriculture products. *Prerequisite: RDG094.*

AGB123 Agriculture Accounting

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Agriculture accounting principles and practices.

AGB124 Microcomputers in Agriculture

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to the operation and capabilities of microcomputers in agriculture applications. Simple programming, data analysis, graphical display, spreadsheets and word processing are included. *Prerequisite: RDG094.*
Meets the Computer Competency requirement for CAC degrees.

AGB130 Agricultural Leadership

1 Credit (1 Lecture)

Typically Offered: Spring

This course enhances personal development and communication skills in the areas of academic education, career success and community leadership. *May be taken two times for credit. Prerequisite: RDG094.*

AGB213 Introduction to Agricultural Commodity and Food Marketing

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An investigation of the organizational, institutional and economic principles that form the agricultural and food marketing systems in the United States. Applications of microeconomics, market performance and international trade analysis are included. *Prerequisite: RDG094.*

AGB225 Agriculture Business Analysis

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Agricultural business analysis using accounting to determine profit and loss, financing the credit needs of an agriculture business, creating budgets and prioritization of enterprises.

AGB234 Agricultural Leadership Development

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Characteristics of effective leaders, including leadership styles and strategies for the management and organization of youth groups in agriculture. Practice in leadership development techniques. *Prerequisite: RDG094.*

AGRICULTURE SCIENCE (AGS)

AGS101 World of Plants

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

The structure, function and use of plants in the living world and scientific experiences relating to the plant kingdom and the plant environment. *Prerequisite: RDG094.*

AGS104 Agricultural Environmental Science

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Science-based approaches to understanding the environmental concepts of ecosystems, population dynamics and agricultural sustainability. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC:



Intensive Writing:

Reading Required: RDG094:

SUN Course:



AGS106 Entomology

4 Credits (3 Lectures, 3 Labs)  

Typically Offered: Fall and Spring

Identification, classification, control and management of insects and other land arthropods affecting humans and their environment. *Prerequisite: RDG094.*

AGS110 Agricultural Mechanics I

3 Credits (2 Lectures, 3 Labs)



Typically Offered: Fall, Spring and Summer

Develop fundamental knowledge and skills related to production and urban agricultural industry, including operation and maintenance of mechanical hand tools, electrical wiring, plumbing and irrigation, arc, gas metal arc welding and oxy-fuel welding. *Field trips required. Necessary safety equipment will be provided by the student.*

AGS122 Natural Resources and Conservation

3 Credits (3 Lectures)  

Typically Offered: Fall and Spring

The conservation and multiple use of natural resources, including recreation, water, forestry, range, soils, wildlife, fossil and alternative fuels. *Prerequisite: ENG101* . *Corequisite: ENG102* .

AGS140 Agricultural Mechanics II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Study of production and urban agricultural industry, including Global Positioning Systems, urban and production agricultural equipment, concrete construction, surveying, three-view drawings and bill of materials. *Field trips required. Necessary safety equipment will be provided by the student. Prerequisite: AGS110 or instructor consent.*

AGS195A Careers in Environmental Science

1 Credit (.5 Lecture, 2 Labs) 

Typically Offered: Fall, Spring and Summer

An introduction to the various careers and industries associated with the environmental science field. Students build industry network relationships. *Field trip required. Corequisite: RDG094.*


AGS196 Agriculture Internship

1 Credit (1 Internship) 

Typically Offered: Fall, Spring and Summer

Students work in agriculture internship placements tailored to the students' academic program, interests and skills. *May be taken more than four times for credit. Prerequisite: RDG094 and instructor consent.*

AGS204 Environmental Sustainability

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Understanding the Earth's environment and the important challenges facing humanity, including climate change, pollution, and loss of biodiversity and water shortages. *Students must attend at least one local governmental environmental science forum. Prerequisite: RDG094.*


AGS221 Soil Science

4 Credits (3 Lectures, 3 Labs)  

Typically Offered: Fall

Fundamental principles of soil science, including the origin, nature and classification of soils; emphasizing the chemical, physical and biological properties in relation to plant growth and nutrition of plants. Also emphasized are non-plant uses of soils and soils in the environment. *Prerequisite: RDG094.*

AGS235 Principles of Horticulture

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall and Spring

Principles and skills in the science, operations and management of field, orchard and ornamental horticultural plant propagation using seed, cutting, budding and grafting in propagating plants for greenhouses and outdoor nurseries. *Prerequisites: AGS240, RDG094.*

AGS240 Plant Biology

4 Credits (3 Lectures, 3 Labs)  

Typically Offered: Spring

A study of the origin, evolution, anatomy, function and ecology of land plants. Genetics, cellular structure, reproduction and the anatomy of monocot and dicot stems, roots, leaves, flowers and fruits are described. Includes aspects of plant physiology, photosynthesis, respiration and plant soil-water relationships. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC: 

Intensive Writing: 

Reading Required: RDG094: 

SUN Course: 



AGS296 Agriculture Internship


3 Credit (3 Internships) 

Typically Offered: Fall, Spring and Summer

Students work in agriculture internship placements tailored to the students' academic program, interests and skills. *May be taken two times for credit. Prerequisite: RDG094 and instructor consent. Note: Students may serve as an intern for a local agricultural company more than one semester during their CAC enrollment.*

ANIMAL SCIENCE (ANS)

ANS101 Animal Industry

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall

Fundamental principles of animal, dairy, equine and poultry science focusing on production, marketing and distribution. *Prerequisite: RDG094.*


ANS102 Horsemanship I

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall and Spring

Fundamental knowledge and skill development in horse anatomy and function. Conformation and riding is emphasized in this course. Individual help is given in areas needed. *The student must supply a horse and tack for this course.*

ANS104 Human and Animal Interrelationships from Domestication to Present

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Evaluation of interrelationships between humans and animals from ancient to modern times, including evolution through domestication of animals in Europe and the New World. *Prerequisite: RDG094.*

ANS110 Horse Event Production

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Horse event production for future equine professionals including organizing shows, events or clinics related to the equine industry.

ANS111 Horseshoeing I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Fundamentals for the beginning horseshoer, including horse anatomy and physiology relative to the proper shoeing of horses.

ANS121 Equine Facility Management I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

This course is designed to educate students in safe and effective equine facilities management. *Students boarding a horse in a CAC facility must sign up for the Equine Facility Management course.*

ANS122 Equine Facilities Management II

3 Credits (2 Lectures and 3 Labs)

Typically Offered: Spring

Students will plan, design and perform a cost analysis of a horse facility, paying attention to safety and ease of use. *Students boarding a horse at Central Arizona College must sign up for this course.*

ANS131 Equine Behavior and Training I

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall

Fundamentals of starting a horse in roping events including the many stages of roping, from starting the horse in the pen through finishing the horse out of a roping box. The emphasis is on correct horsemanship principals as well as physical and mental preparation of the horse and rider. *The student must supply the horse and tack for this course. May be taken two times for credit. Prerequisite: ANS121.*

ICON LEGEND:

AGEC: 

Intensive Writing: 

Reading Required: RDG094: 

SUN Course: 



ANS172 Introduction to Western Horsemanship

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

An introduction to the basic theories of western horsemanship with an emphasis on correct seat, leg and hand positions. Course includes proper equine handling techniques. Students will ride in a schooling show environment using western tack. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*


ANS195 Careers in Veterinary Science

1 Credit (1 Lecture)

Typically Offered: Fall

An introduction to the various careers and industries associated with the veterinary science field. Students build industry network relationships.

ANS200 Introduction to Equine Science

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Introduction to equine sciences including basic structure and function of equine anatomy, disease prevention and treatment, common breeds and nutritional requirements of horses. *Prerequisite: RDG094.*

ANS202 Horsemanship II

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall and Spring

Advanced Horsemanship emphasizing correct horsemanship practices, stabling, training, healthcare and parasite control, horse anatomy and function, conformation and riding (cues, aids, gaits and maneuvers). *The student must supply a horse and tack for this class. Prerequisite: ANS102.*

ANS211 Advanced Horseshoeing

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Advanced skills in shoeing horses to eliminate and/or correct lameness to the extent that the animal remains useful and pain free. *Prerequisite: ANS111.*

ANS213 Animal Genetics

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Principles of domestic animal genetics, including molecular, classical and population genetics. *Prerequisite: BIO100 or higher.*

ANS215 Anatomy and Physiology of Domestic Animals

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

Functional anatomy and systemic physiology of domestic animals with emphasis on physiological systems of importance to animal production. *Prerequisite: BIO100 or higher.*

ANS216 Equine Anatomy and Physiology

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Introduction to the structure and function of the equine. Includes cell structure, and anatomy and physiology of major systems including skeletal, muscular, circulatory and digestive systems. *Prerequisite: ANS200.*

ANS220 Artificial Insemination

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Anatomy and physiology of reproduction, heat detection, semen handling, herd management and the techniques of artificial insemination.

ANS223 Advanced Equine Training

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall, Spring and Summer

Fundamental concepts and basic horsemanship skills applied to training a timed event horse, including conformation and bloodlines, types and uses of equipment and training methods. Physical and mental conditioning of both horse and rider along with fundamentals needed to help the horse perform to its highest potential in a competition setting. *May be taken three times for credit. Prerequisite: ANS231*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



ANS226 Feeds and Feeding

3 Credits (3 Lectures)

Typically Offered: Fall

Fundamentals of nutrition through feeds and feeding. Identification and classification of livestock feeds. Discuss anatomy and physiology of digestion. Computation of standards rations for livestock.

ANS231 Equine Behavior and Training II

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Spring

Advanced training of the roping horse, both in the pen and from the roping box. Emphasis on correct horsemanship principles, as well as, physical and mental preparation of the horse and rider. *The student must supply the horse and tack for this course. May be taken two times for credit. Prerequisite: ANS131 or instructor consent. Recommended: ANS122.*

ANTHROPOLOGY (ASB)

ASB101 Physical Anthropology and Archaeology: Bones, Stones and Human Evolution

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Consult CAC Class Schedule

Evidence and processes of human evolution and of culture change. Includes primates, primate comparative anatomy and behavior, biomolecular variation, fossil hominids and their tools, variation models, heredity, environment and human biology, prehistoric culture and society. *Field work activities may be required. Prerequisite: RDG094. Recommended: students with prior background in biology may have a richer course experience.*

ASB102 Cultural Anthropology

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Principles and concepts of sociocultural anthropology and anthropological linguistics with illustrations from a variety of cultures around the world. *Field work activities may be required. Prerequisite: RDG094.*

ASB201 Indians of the Southwest

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Cultural geography and social institutions of contemporary Indian cultures of the American Southwest and their antecedents. Includes examining similarities and differences, gender roles, and the historic and contemporary relations of Southwestern Indian cultures and federal and state governments of Spain, Mexico and the U.S. *Field work activities may be required. Prerequisite: RDG094.*

ARCHAEOLOGY (ARH)

ARH200 Principles of Archaeology

3 Credits (3 Lectures)

Typically Offered: Every other spring; consult CAC Class Schedule.

History of archaeological research; survey of concepts, methods, and goals of archaeology as a subdiscipline of anthropology. Analysis and synthesis of archaeological data. Theories in archaeology, including theories of cultural evolution. *Prerequisite: RDG094.*

ART (ART)

ART100 Art Appreciation

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction to the history, vocabulary, materials and processes of art with an emphasis on painting, sculpture and architecture. *Prerequisite: RDG094.*

ART101 Two-Dimensional Design

3 Credits (2 Lectures, 3 Labs) ART1112

Typically Offered: Fall, Spring and Summer

A study of perception, emphasizing the elements and principles of design as a basis of all creative work in the visual arts with emphasis on two-dimensional media. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



ART102 Three-Dimensional Design

3 Credits (2 Lectures, 3 Labs) ART1115

Typically Offered: Fall and Spring

A study of perception, emphasizing the elements and principles of design as a basis of all creative work in the visual arts, with emphasis on three-dimensional media. *Prerequisite:* RDG094.

ART103 Beginning Jewelry and Metalwork

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Basic jewelry design and metalwork techniques for the beginner. *Prerequisite:* RDG094.

ART104 Advanced Jewelry and Metalwork

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced jewelry design and metalwork techniques. *May be taken more than four times for credit. Prerequisite:* ART103.

ART105 Ceramics I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An overview of hand building, wheel throwing, glazing, materials and concepts of ceramics as a foundation for further work in ceramic arts. *Satisfactory/Unsatisfactory grading option available. Prerequisite:* RDG094.

ART106 Ceramics II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced ceramic techniques including in-depth study of construction technique and/or surface treatment. *May be taken up to four times for credit. Prerequisite:* ART105.

ART107 Drawing I

3 Credits (2 Lectures, 3 Labs) ART 1111

Typically Offered: Fall, Spring and Summer

Introductory study of linear perspective, classical shading theory and composition using basic drawing media, including perspective theory, local values of objects, depiction of 3-dimensional space and the basic principles of design.

ART108 Intermediate Drawing

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Drawing with emphasis upon the creative use of various media, tools, supports and techniques as a means of expression. *May be taken four times for credit. Prerequisite:* ART107 . *Recommended:* ART101 .

ART109 Color Theory

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

The study of color theory, color perception, psychology of color and their applications to visual design and composition.

ART201 Painting I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An introduction to painting, techniques and subject matter with emphasis on skill building. *Prerequisite:* ART107 . *Recommended:* ART101 .

ART202 Painting II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Exploration of color, composition, techniques and subject matter in painting media. *Prerequisite:* ART201. *Recommended:* ART101 .

ART203 Life Drawing I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An introduction to drawing the human figure emphasizing form, structure, anatomy, gesture, value, and composition. *May be taken four times for credit. Prerequisite:* ART107 . *Recommended:* ART108.

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



ART204 Watercolor I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

The basic techniques of watercolor emphasizing use of materials, water media techniques, value, color, illusion of space and volume, and composition. *May be taken four times for credit. Prerequisite: ART107. Recommended: ART101 and ART109.*

ART205 Intermediate Painting

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced projects in painting with emphasis on composition and personal stylistic development. *May be taken four times for credit. Prerequisite: ART202.*




ART206 Portrait Drawing

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Spring

Drawing the human figure with emphasis on the structure and anatomy of the face. *May be taken up to four times for credit. Prerequisites: ART107, RDG094.*




ART207 Art History I

3 Credits (3 Lectures)  ART 1101  

Typically Offered: Fall and Spring

A survey of the history of art from the Prehistoric Era through 1300 C.E. *Prerequisite: RDG094.*


ART208 Art History II

3 Credits (3 Lectures)  ART 1102  

Typically Offered: Fall and Spring

A survey of the history of art from 1300 CE to the present. *Prerequisite: RDG094.*

ART209 Visual Art, Music and Learning

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

An introduction to the effects of the arts on learning, student learning styles, visual culture and visual arts, and music theory and culture. *Prerequisite: RDG094. Cross Listed: MHL209.*

ART210 Ceramics Workshop

2 Credits (2 Lectures)

Typically Offered: Summer

An introductory course in the technology, processes, techniques and aesthetics of ceramic art. *Satisfactory/Unsatisfactory grading option is available. May be taken up to four times for credit. Prerequisite: ART105.*

ART213 Life Drawing II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

A study of the human figure with a greater emphasis on skeletal and muscular structure, rendering, perspective, gesture and composition. *May be taken four times for credit. Prerequisite: ART107 and ART203. Recommended: ART108.*

ART215 Printmaking

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

An introduction to methods of producing fine art prints. *May be taken up to four times for credit. Recommended: ART101, ART107.*

ART220 Character Design and Modeling

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An introduction to designing, developing, and modeling a character for illustration, artistic, entertainment or game purposes. The course places an emphasis on the figure in two-dimensional and three-dimensional media. *May be taken four times for credit. Prerequisite: ART107 and ART203. Recommended: ART101, ART102, ART109, and ART213.*

ICON LEGEND:

AGEC: 

Intensive Writing: 

Reading Required: RDG094: 

SUN Course: 



ASTRONOMY (AST)

AST101 Survey of Astronomy

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

An introduction to the history of astronomy, use of astronomical instruments, celestial motion, space flight, planetary systems, structure and evolution of stars, galaxies and cosmology. *Labs will include nighttime observing sessions. Prerequisites: RDG094, MAT092.*

AUTOMOTIVE/DIESEL (AUT)

AUT121 Auto Body Repairing and Refinishing I

4 Credits (2 Lectures, 6 Labs)

Typically Offered: Fall

An introduction to body repair techniques including surface preparation and painting procedures.

AUT122 Auto Body Repairing and Refinishing II

4 Credits (2 Lectures, 6 Labs)

Typically Offered: Fall and Spring

Emphasis on detailed body repair procedures and advanced painting techniques. Principles of wire feed welding, unibody construction and repair. *Prerequisite: AUT121.*

BIOLOGY (BIO)

BIO100 Biology Concepts

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Basic principles and concepts of biology. Exploration of methods of scientific inquiry and behavior of matter and energy in biological systems. Fieldtrips may be required. *Prerequisite: RDG094.*

BIO109 Natural History of the Southwest

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

A study of the common plants and animals of the southwest, including identification, distribution, adaptations, behavior and ecology; including regional geography/climate. Introduction to basic field and laboratory techniques used in natural history studies with an emphasis on the Sonoran Desert. Field trips required at student's expense. *Prerequisite: RDG094.*

BIO156 Human Biology for Allied Health

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An introductory course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell biology, histology, genetics and microbiology. *Prerequisite: RDG094.*

BIO160 Introduction to Human Anatomy and Physiology

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An introduction to and study of the structure and function of the human body. Structural organization, homeostasis, control mechanisms and the major organ systems of the body will be emphasized. *Prerequisite: RDG094.*

BIO181 General Biology I

4 Credits (3 Lectures, 3 Labs) BIO 1181

Typically Offered: Fall, Spring and Summer

Biological principles of structure and function at the molecular and cellular levels, and processes of scientific inquiry. CHM130 or one year of high school chemistry is recommended. Field trips may be required at student expense. *Prerequisite: RDG094.*

BIO182 General Biology II

4 Credits (3 Lectures, 3 Labs) BIO 1182

Typically Offered: Fall and Spring

Basic evolution and biological diversity, ecology, plant form and function, and animal form and function are explored through processes of scientific inquiry. Field trips may be required at student expense. *Prerequisite: BIO181 .*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



BIO201 Human Anatomy and Physiology I

4 Credits (3 Lectures, 3 Labs) BIO 2201

Typically Offered: Fall, Spring and Summer

Study of structure and function of the human body. Topics include a general introduction and basic orientation of the human body, basic chemistry for biology, cells, tissues, integumentary system, skeletal system, muscular system, nervous system and the special senses. *Prerequisites:* RDG094 and (BIO156 or BIO181).

BIO202 Human Anatomy and Physiology II

4 Credits (3 Lectures, 3 Labs) BIO 2202

Typically Offered: Fall, Spring and Summer

Continuation of structure and function of the human body. Topics include endocrine, blood, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, acid-base and fluid/electrolyte balance, pregnancy and human development and human genetics. *Prerequisites:* BIO201 , RDG094.

BIO205 Microbiology

4 Credits (3 Lectures, 3 Labs) BIO 2205

Typically Offered: Fall, Spring and Summer

Structure and function of micro-organisms and the role they play in the environment and human disease, with emphasis on the medical importance of microbes. Laboratory work includes the handling and identification of micro-organisms. *Prerequisites:* RDG094 and (BIO156 or BIO181).

BIO206 Biotechnology Instrumentation I

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Principles and methodologies of recombinant DNA technology, including preparation of solutions and growth media in a laboratory setting and genetic analyses. *Prerequisite:* BIO181 *Recommended:* Completion of BIO181 with a grade of "C" or better.

BIO207 Biotechnology Instrumentation II

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Principles and methodologies of protein expression, isolation, identification and purification, including immunological and cell culture techniques. *Prerequisite:* BIO206. *Recommended:* Completion of BIO206 with a grade of "C" or better.

BIO240 General Genetics

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

This course is an intensive introduction to the field of genetics. Emphasis is on the application of cell and molecular biology, inheritance, gene expression/regulation, biotechnology/recombinant DNA technology and genetic analysis principles to modern genetics topics: cancer, bioinformatics, epigenetics, genomics, biotechnology, DNA forensics, stem cells, quantitative inheritance, and population, evolutionary and conservation genetics. Ethical and social issues will be incorporated on a basic level. *Prerequisite:* BIO181 .

BIO299 Introduction to Co-Op: Biotechnology Internship

1 Credit (1 Internship - 45 hours)

Typically Offered: Fall, Spring and Summer

Students who wish to gain more experience in the field of biotechnology should be encouraged to do so by receiving credit for their work, especially in the case of long-term internship placement. Students may complete an internship each semester including summers for a total of six semesters. *May be taken six times for credit. Prerequisite:* BIO206. *Recommended:* Completion of BIO206 with a grade of "C" or better.

BUSINESS (BUS)

BUS100 Introduction to Business

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Business administration trends, technology, communication, ethics, economics, business organization and ownership including entrepreneurship, management and production, marketing, finances, laws and regulations and human resources management. *Prerequisite:* RDG094.

BUS101 Business Mathematics

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

A study of mathematical computations as applied in various business transactions including discounts, interest, payroll, bank reconciliation and basic business statistics. *Prerequisites:* MAT082 or higher; RDG094.

ICON LEGEND:

AGEC:


Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:




BUS120 Personal Money Management

3 Credits (3 Lectures) 

Typically Offered: Fall

A study of consumer decision-making in a technological society where individuals have limited time and income, including planning and budgeting for food, shelter, transportation, healthcare, insurance, savings, investments, debt and taxes. *Prerequisite:* RDG094.

BUS122 Small Business Management

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Factors in planning, owning and managing a small business with use of case materials to develop entrepreneurship and managerial/marketing skills. *Prerequisite:* RDG094.


BUS123 Business Relations

3 Credits (3 Lectures)  

Typically Offered: Fall, Spring and Summer

The development of interpersonal skills necessary for improving supervision and leadership in the workplace through a basic understanding of interactions among people. *Prerequisite:* RDG094.

BUS180 Introduction to Marketing

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

An introduction to marketing, including product, principles, practices and total marketing process planning and analysis. *Prerequisite:* RDG094.

BUS190 Principles of Management and Leadership

3 Credits (3 Lectures)  

Typically Offered: Fall and Spring

A comparative examination of classic and contemporary theories of management and leadership to include the social, ethical, legal and team-building implications of workplace issues. *Prerequisite:* RDG094.


BUS196 Applied Business Internship

1 Credit (1 Internship)

Typically Offered: Fall, Spring, Summer and Open Entry/Closed Exit

Designed for students who have successfully completed at least 15 college credits toward a certificate or degree, this job readiness and internship course helps students develop professional job skills and apply those skills to a 45-hour internship. CAC's Student Services Experiential Learning Coordinator will provide assistance in locating internship site. *May be taken three times for credit. Prerequisite:* Successfully complete a minimum of 15 college-level credits.

BUS201 Legal Environment of Business

3 Credits (3 Lectures) 


Typically Offered: Fall and Spring

An examination of the legal framework governing rules of conduct among businesses and the legal implications of establishing business policy. *Prerequisite:* RDG094.



BUS207 Business Communications

3 Credits (3 Lectures)



Typically Offered: Fall and Spring

Written and oral communication in organizations with emphasis on writing business letters, memos and reports; utilizing electronic and social media effectively in a business environment; speaking and listening skills; communication theory, critical analysis of appropriate writing; and communication in various business situations. *Prerequisite:* ENG101 .


BUS208 Business Statistics

3 Credits (3 Lectures)  BUS 2201 

Typically Offered: Fall and Spring

A study of business applications using descriptive and inferential statistics, measurement of relationships and statistical process control management techniques. *Prerequisites:* RDG094; MAT151 ; (CIS120  or instructor consent).

BUS220 Retail Management

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

Management principles of retailing with application to small, medium, and large stores, evaluating store locations, layout, employment, merchandising management and current trends in retailing. *Recommended:* RDG094

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



BUS250 Planning the Entrepreneurial Venture

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Research, develop and write detailed start-up business plans to create a successful business. Note: this course is a combination of BUS250A, BUS250B, BUS250C, and BUS250D.

BUS250A Entrepreneurship - Introduction

.75 Credit (.75 Lecture)

Typically Offered: Consult CAC Class Schedule.

Investigate business ideas, examine traits of successful entrepreneurs, assess business opportunities and feasibility, and evaluate legal structures and management infrastructure.

BUS250B Entrepreneurship - Market Planning

.75 Credit (.75 Lecture)

Typically Offered: Consult CAC Class Schedule.

Conduct research on a chosen product/service in relation to the industry, competition and other market considerations.

BUS250C Entrepreneurship - Financial Planning

.75 Credit (.75 Lecture)

Typically Offered: Consult CAC Class Schedule.

Project the financial situation of a business concept including needed start-up funds, pricing strategies and sources of financing using break-even analysis, basic cash accounting systems and financial ratios.

BUS250D Entrepreneurship – The Business Plan

.75 Credits (.75 Lecture)

Typically Offered: Consult CAC Class Schedule.

Finalizing the business planning activities required for the successful launching of a new venture.

BUS260 Applied Business Seminar


3 Credits (2 Lectures, 1 Internship/Practicum)

Typically Offered: Fall, Spring and Summer

This is a capstone course that includes an internship or community service learning project experience for students completing degree requirements. Students develop career goals, professional job skills and collaborate as a team to research problems and critique actual local and global business community situations. A 45-hour internship site can be arranged by online students to complement coursework; face-to-face or ITV students complete an in-class community service learning project. Open to students who have successfully completed a minimum of 30 college credits.

Prerequisites: CIS110 or CIS120  and successful completion of 30 college credits.

BUS292 Fundamentals of Logistics – Organizational Management

3 Credits (3 Lectures) 


Typically Offered: Fall, Spring and Summer

Introduction to the fundamentals of logistics, including procurement, inventory, transportation, warehousing, materials handling, packaging, information management, sustainability and international logistics of supply chain and management.

Prerequisite: RDG094.

CERTIFIED NURSING ASSISTANT (CNA)

CNA125 Nursing Assistant

8 Credits (7 Lectures, 3 Labs) 

Typically Offered: Fall, Spring and Summer

Entry-level nursing skills, supervised clinical experience, and basic anatomy, physiology, nutrition, and medical terminology pertinent to nursing assistants in nursing homes or hospitals. Potential students convicted of a felony may not apply for state certification or licensure until five years after the absolute discharge of sentence. All court-ordered terms of probation or parole must be completed at least five years prior to the date of application. *Prerequisites:* HS diploma or GED, Registration Packet must be completed, Healthcare Provider Level CPR, MAT082 or appropriate test score, and RDG094.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 

**CHEMISTRY
(CHM)****CHM130 Fundamental Chemistry**

4 Credits (3 Lectures, 2 Labs, 1 Recitation) CHM 1130

Typically Offered: Fall, Spring and Summer

The basic aspects of chemistry, including matter, energy, measurement, atoms, molecules, ions, chemical bonding, chemical arithmetic and nuclear reactions. Includes one credit of in-person labs. *Prerequisites:* MAT092, RDG094.

CHM138 Chemistry for Allied Health

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Introduction to general, organic and biological chemistry for health. Includes measurements, atomic structure, bonding, nomenclature, states of matter, solutions, reactions, hydrocarbons, functional groups, carbohydrates, lipids, proteins, enzymes and metabolic pathways. *Prerequisites:* BUS101 or MAT092 OR MAT118 or higher; RDG094.

CHM138LL Chemistry for Allied Health Lab

1 Credit (2 Labs, 1 Recitation - 45 hours total)

Typically Offered: Fall and Spring

Introduction to laboratory skills and activities related to general, organic and biological chemistry for allied health. *Prerequisites:* RDG094 and (BUS101 or MAT092 or MAT118 or higher). *Corequisite:* CHM138.

CHM151 General Chemistry I

4 Credits (3 Lectures, 2 Labs, 1 Recitation) CHM 1151

Typically Offered: Fall and Spring

Chemistry topics including matter, energy, measurement, atoms, ions, molecules, chemical formulas and equations, chemical arithmetic, thermochemistry, states of matter, chemical bonding and solutions are covered. *Includes one credit of in-person labs. Prerequisites:* RDG094; MAT121 or MAT122; CHM130 or CHM138 or one year of high school chemistry with a grade of "C" or better.

CHM152 General Chemistry II

4 Credits (3 Lectures, 2 Labs, 1 Recitation) CHM 1152

Typically Offered: Fall and Spring

Topics such as chemical kinetics, spontaneity of chemical change, chemical equilibrium, precipitation reactions, acid and base equilibria, complex ions, oxidation-reduction reactions and nuclear reactions are covered. *Includes one credit of in-person labs. Prerequisites:* CHM151 .

CHM235 General Organic Chemistry I

4 Credits (3 Lectures, 2 Labs, 1 Recitation) CHM 2235

Typically Offered: Fall

A comprehensive study of organic chemistry with emphasis on reactivity and synthesis. Topics include the areas of structure and bonding, molecular properties, alkanes, cycloalkanes, stereochemistry, mechanisms for organic reactions, alkenes, alkynes, alkyl halides, conjugated dienes and alcohols. In-person lab experience includes laboratory techniques and practice with emphasis on separations, purification, synthesis, halide reactivity and spectroscopic identification of organic structures. *Prerequisite:* CHM152 .

CHM236 General Organic Chemistry II

4 Credits (3 Lectures, 2 Labs, 1 Recitation) CHM 2236

Typically Offered: Spring

A continuation of CHM235 , CHM236 explores the general principles of organic chemistry with advanced continued emphasis on reactivity and synthesis. Topics covered are ethers and epoxies, aldehydes and ketones, carboxylic acids and their derivatives, carbohydrates, lipids, amines, amino acids, polymers and aromatic compounds. In-person lab experience includes additional techniques in organic chemistry; preparation, separation and identification of organic compounds, including polymers, benzocaine, soaps and amines. *Prerequisite:* CHM235 .

ICON LEGEND:**AGEC:** **Intensive Writing:** **Reading Required:** RDG094: **SUN Course:**



CHINESE (CHI)

CHI101 Elementary Chinese

5 Credits (4 Lectures, 1 Recitation)

Typically Offered: Fall

Modern spoken and written Chinese (Mandarin) for non-native speakers. Introduction to proper pronunciation, grammar, beginning conversation and the development of reading and writing skills. Survey of cultural aspects of the Mandarin Chinese language.

CHI102 Elementary Chinese II

5 Credits (4 Lectures, 1 Recitation)

Typically Offered: Spring

A continuation of CHI101 emphasizing modern spoken and written Mandarin Chinese for non-native speakers. Continued development of proper pronunciation, grammar, conversation and reading and writing skills. Survey of cultural norms, beliefs and traditions from areas where Mandarin Chinese is spoken.

Prerequisite: CHI101.

CHI115 Conversational Chinese for Non-Native Speakers

3 Credits (3 Lectures)

Typically Offered: Fall

Conversational Chinese for Non-Native Speakers focuses on learning to read, write, speak and listen to Mandarin Chinese. Various aspects of the Chinese culture will be woven into the instruction in order to reinforce language learning. *May be taken 2 times for credit.*

CIVIL TECHNOLOGY (CET)

CET101 Introduction to Surveying for Heavy Equipment Operators

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Theory and application of plane surveying, including horizontal and vertical measurements, differential leveling, topographic mapping and ground safety.

CET125 Introduction to Earthmoving Methods and Operations

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction to the process of earthmoving, including capabilities, limitations, uses and maintenance of heavy equipment employed in heavy construction and mining. Use mathematical formulas and calculations as well as computer software to determine owner costs and equipment requirements.

CET221 Basic Surveying and Grade Staking

4 Credits (2 Lectures, 6 Labs)

Typically Offered: Fall and Spring

Theory and application of plane surveying, including horizontal and vertical measurements, differential leveling, topographic mapping and construction staking. Grade staking skills including percent, ratio, stake reading, hubs and lath, grade transfers, offsets, laser use and ground safety.

COMMUNICATIONS (COM)

COM100 Fundamentals of Human Communication

3 Credits (3 Lectures) COM 1100

Typically Offered: Fall, Spring and Summer

Concepts of the human communication process. Basic theory and practical skills in small group, interpersonal and public contexts. *Prerequisites: ENG100, RDG094.*

COM101 Interpersonal Communication

3 Credits (3 Lectures) COM 1110

Typically Offered: Fall and Spring

Examination of communication in personal relationships. Develop strategies and skills necessary for successful interpersonal communication. *Prerequisite: RDG094 and ENG100 or appropriate writing test score.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

COM202 Small Group Communication

3 Credits (3 Lectures) COM 2271

Typically Offered: Fall and Spring

Principles and practices of effective communication in the small group setting, including problem solving and decision making processes, skill development for participation, leadership and teamwork. *Prerequisite:* RDG094 and ENG100 or appropriate writing test score.

COM206 Public Speaking

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Principles and practice of public speaking, with special attention given to the selection, organization, and presentation of material based upon audience analysis as well as acquisition of confidence and speaking poise. *Prerequisites:* ENG101 , RDG094.

COM207 Introduction to Communication Inquiry

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Overview of theory and methodological practice in communication. Emphasis on the development of critical thinking and scholarly writing skills through active participation in the research process. *Prerequisites:* COM100 , ENG101 . *Recommended:* Students may wish to take several COM courses (in addition to the required COM 100 course) prior to taking this course.

COM259 Professional Communication

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Interpersonal group and public communication in business and professional organizations. Oral communication in business settings with emphasis on utilizing electronic and social media effectively in a business environment; speaking and listening skills; communication theory; and critical analysis of appropriate communication in various business contexts. *Prerequisites:* ENG101 .

COM263 Intercultural Communication

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Basic concepts, principles, and skills for improving communication between persons from different minority, racial, ethnic and cultural backgrounds. *Prerequisite:* RDG094.

COM275 Communication Studies Capstone

1 Credit (1 Lecture)

Typically Offered: Spring

Complete a final project for Communication Studies A.A. degree. Project must demonstrate synthesis and application of discipline knowledge. *Prerequisite:* Completion of 9 credits of COM courses.

COMPUTER BUSINESS APPLICATIONS (CBA)

CBA102A Workshop for MS Word

.5 Credit (.5 Lecture)

Typically Offered: Workshop offered as needed.

Offered: Consult CAC Class Schedule.

Introduction to MS Office Word using basic skills needed to create, format and edit business documents. *Satisfactory/Unsatisfactory grading option is available. Prerequisites:* Basic Windows and file management knowledge.

CBA110A Computers for Beginners

1 Credit (1 Lecture)

Typically Offered: Workshop offered as needed.

Offered: Consult CAC Class Schedule.

Introduction to microcomputers, Microsoft Windows operating system, Microsoft programs and accessories and Internet Explorer.

CBA110C MS Windows Basic

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Introduction to Microsoft Windows operating system, programs, and file management.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:

**CBA111A Internet Explorer**

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

An introduction to the Internet using Internet Explorer.
Prerequisites: Basic Windows and file management knowledge.

CBA112A MS Word Basic

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Introduction to Microsoft Word covering the basics of creating business documents. *Recommended: Basic Windows and file management knowledge.*

CBA112B MS Word Intermediate

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Create multi-paged documents and web pages with enhance styles, charts and lists in MS Word. *Prerequisites: CBA112A or instructor consent. Recommended: Basic Windows and file management knowledge.*

CBA112C MS Word Advanced

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Build advanced business documents that include macros, navigation, hyperlinks and forms in MS Word. *Prerequisites: CBA112B or instructor consent. Recommended: Knowledge of computer basics and file management.*

CBA113A MS Excel Basic

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Introduction to MS Excel covering basic spreadsheets and charts. *Recommended: Basic Windows and file management knowledge.*

CBA113B MS Excel Intermediate

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Use MS Office Excel financial functions, database tools and enhanced, specialty charts to process and display data.
Prerequisites: CBA113A or instructor consent.

CBA113C MS Excel Advanced

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Use Data analysis, PivotTables and Macros in MS Excel to solve business problems. *Recommended: File management and Operating system knowledge. Prerequisite: CBA113B or instructor consent.*

CBA114A MS Access Basic

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Introduction to MS Access and database basics.

CBA114B MS Access Intermediate

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Analyze database designs; enhance queries, forms and reports; and create subforms and subreports in MS Access.
Prerequisite: CBA114A.

CBA114C MS Access Advanced

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Create advanced queries, reports, macros, and modules and manage a database and its objects in MS Access.
Prerequisite: CBA114B.

CBA116A MS PowerPoint Basic

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Introduction to creating, editing and delivering basic presentations using MS PowerPoint.

CBA116B MS PowerPoint Advanced

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Build and deliver professional MS PowerPoint presentations with advanced graphics, tables, charts and templates.
Prerequisite: CBA116A.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



CBA117A MS Publisher Basic

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Create simple publications using MS Publisher, including use of wizards, templates, images, graphic boxes, and other special enhancements.

CBA117B MS Publisher Intermediate

1 Credit (3 Labs)

Typically Offered: Open Entry/Closed Exit

Create customized publications, business forms, tables and web pages using MS Publisher. *Prerequisite: CBA117A.*

CBA118 MS Outlook

1 Credit (1 Lecture)

Typically Offered: Fall, Spring, Summer and Open Entry/Closed Exit

Use Microsoft Outlook to send, receive and organize email, create and organize contacts, and schedule appointments and tasks. *Satisfactory/ Unsatisfactory grading option is available.*

CBA122A MS Word Module 1

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Spring

Basic features of Microsoft Word necessary to create business, educational, and personal documents that include tables, citations, graphics, and templates. *Recommended: Basic Windows and file management knowledge.*

CBA122B MS Word Module 2

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Spring

Advanced features of Microsoft Word for mailings, directories, collaboration, productivity, web publishing, forms, and macros. *Prerequisite: CBA122A.*

CBA133A Spreadsheet Applications in Excel

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Create, format, and print both structured and "what-if" spreadsheets using formulas and functions, charting, tables and analysis. Skills learned will cover the Core Level skills for Microsoft Office Specialist (MOS) Certification: Microsoft Office Excel 2013. *Prerequisites: Basic Windows and file management knowledge; BUS101 OR MAT092.*

CBA133B Advanced Spreadsheet Applications in Excel

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Use of advanced features of MS Excel to import and export data, use templates, generate reports, use macros, audit a worksheet and use analysis tools. *Prerequisite: CBA133A.*

CBA134A Database Management in Access

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Design and create relational databases. Produce the following database objects: a query, report, and form on the data and publish to the Web. Skills learned will cover the Core Level skills for Microsoft Office Specialist (MOS) Certification: Microsoft Office Access 2013. *Prerequisites: Basic Windows and file management knowledge.*

CBA134B Advanced Database Management in Access

3 Credits (2.75 Lectures, 1 Lab)

Typically Offered: Spring

Use of advanced features of software to customize a database, do advanced queries and reports, automate tasks and prepare supporting documentation. *Prerequisite: CBA134A.*

CBA210 Web Development Tools

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Theory, design and Web construction covering: information architecture, Web project management, scenario development, performance evaluations, and browser incompatibility. Create and manage Websites and applications using current tools such

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



as Dreamweaver, Flash, HTML5, and various multimedia and standardized CSS. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: CIS120*

CBA211 JavaScript Programming

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall Even Years

Design client-side, platform-independent solutions using the JavaScript language covering JavaScript programs, JavaScript object model, control program flow, validate forms, animate images, target frames and cookies. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: CBA210.*

CBA212 Adobe Flash Animation

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall Even Years

Production of high impact web animation, such as animated logo, navigation controls, long-form animation and web applications. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: CBA210.*

COMPUTER INFORMATION SYSTEMS (CIS)

CIS110 Fundamentals of Computer Literacy

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Introduction to microcomputer technology, including terminology, software applications, operating systems, tools, basic set up and maintenance. Also includes Internet searches, and evaluation of websites' validity and reliability of information. Use Microsoft (MS) Word, MS Excel, MS Access and MS PowerPoint to analyze data, solve problems, and present solutions. *Not designed for CIS degree or CIS Certificate seekers. Prerequisite RDG091.*

CIS111 Introduction to the Internet

2 Credits (2 Lectures)

Typically Offered: Fall

An introduction to the structure, tools and terminology of the Internet relating to web browsers, email, search engines, communications, security and e-commerce. *Recommended: Basic computer skills including file management.*

CIS112 Web Page Design Fundamentals

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Design and build web pages using HTML/XHTML and cascading style sheets.

CIS120 Survey of Computer Information Systems

3 Credits (2 Lectures, 3 Labs) CIS1120

Typically Offered: Fall, Spring and Summer

Survey of computer information systems, fundamental computer concepts, programming techniques, networking and emerging technologies. Hands-on experience with Microsoft Office application software with an emphasis on database and spreadsheets for problem solving. *Prerequisite: RDG094. Meets the Computer Competency requirement for CAC degrees.*

CIS121 Microcomputer Operating System Fundamentals

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Installations, administrations, upgrades, configuration and diagnostics of a currently-supported microcomputer operating system used in business organizations. Registry and Command-line techniques to optimize and customize a microcomputer operating system. *May lead to Microsoft Certification. Prerequisite: RDG094.*

CIS123 Introduction to Programming

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Introduces structured programming techniques to students. Emphasizes the use of logic tools in program design using expressions, statements, basic control flow and methods. Problem analysis is based on the input/process/output cycle using appropriate case studies. *Prerequisite: CIS120* .

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

CIS129 Database Fundamentals

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Workshop offered as needed.
Consult CAC Class Schedule.

Fundamentals of relational database design, implementation and management, including referential integrity, concurrency, data validity, entity-relationships, Structured Query Language and database normalization. *Prerequisite:* CIS120

CIS130 Networking Essentials

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Introduction to networking principles. Topics include: seven-layered Open Systems Interconnection (OSI) Model of networking, physical and logical network topologies, networking protocols, network services, network fault tolerance and hardware/software devices used in a network. *May lead to Network+ Certification. Satisfactory/ Unsatisfactory grading option is available. Prerequisite:* CIS120

CIS135 Principles of Telephony and Telecommunications

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

The history of telecommunications and telephony technologies, including the underlying electronics, transmission media, voice, wireless, data communication solution functions and features. This course also covers wide area connectivity, Internet-enabled communications, telephony network management, policies and contracts. *Satisfactory/ Unsatisfactory grading option is available. Prerequisite:* CIS120

CIS150 Windows Server

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

A study of a currently active and deployed Microsoft server network operating system including Active Directory, security policy, group policies, Internet Information Server (IIS), configure Domain Name Services (DNS), file and print services, and building trust relationship between servers. *May lead to Microsoft Certification. Satisfactory/Unsatisfactory grading option is available. Prerequisites:* CIS120 , CIS121.

CIS152 Windows Network Infrastructure

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Windows networking class where students learn about and complete hands-on labs to configure multiple servers in a network using currently-supported operating systems. Topics covered include Active Directory configuration, DNS naming services, connectivity and security services, managing IP routing, remote access, IP security, network address translation and virtual private networking. *May lead to Microsoft Certification. Satisfactory/ Unsatisfactory grading option is available. Prerequisites:* CIS130 and CIS150.

CIS153 Network Security

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Identify security risks and plan and design Windows network security solutions on currently-supported operating systems used in business organizations by securing network resources, services, communications, remote access users and designing secure access to the Internet. *May lead to Security+ Certification. Satisfactory/Unsatisfactory grading option is available. Prerequisites:* CIS130 and CIS150.

CIS157 Computer Forensics and Investigation

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to the acquisition, authentication, reconstruction, examination and analysis of data stored on electronic media. Topics include: ethics, rules of evidence, hardware and software tools, various operating systems, forensic lab setup and the investigational process. *Satisfactory/Unsatisfactory grading option is available. Prerequisites:* CIS120 , CIS121.

CIS181 C#.NET

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall

Object-oriented programming language to create visual applications for Windows, MS Office, the web, controls and more. Created to work within the .NET framework. *Satisfactory/Unsatisfactory grading option is available. Prerequisite:* CIS123.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



CIS210 Cloud Computing

3 Credits (3 Lectures)

Typically Offered: Spring

Cloud Computing theory and application, including Cloud Computing network design and connectivity, server management, best-practices, security and provider service level agreements. Case studies of industry examples are used as applications to reinforce the theories discussed. *Prerequisite: CIS152.*

CIS213 Linux Server

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Learn the fundamentals of working on the Linux platform including installation, file system management and administration. There is an emphasis on the command-line BASH shell command interface, and also an introduction to the GUI options with Linux. Students learn about initialization options, how to manage processes and operating system utilities, and administration tasks, including network configurations. *May lead to Linux Certification. Satisfactory/Unsatisfactory grading option is available. Prerequisite: CIS130 and CIS150.*

CIS214 Application Development in Excel

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Application development in Microsoft Excel focusing on the programming behind developing detailed spreadsheet applications with games. Content includes Visual Basic for Applications (VBA) fundamentals, an enhanced review of Macros, XML and Excel objects. *Satisfactory/Unsatisfactory grading option available. Prerequisites: CIS123 OR (CIS120 AND CBA133A). Recommended: CBA133A recommended for programming students.*

CIS215 CISCO CCNA Routers

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Learn OSI internetworking, Ethernet networking, TCP/IP, subnetting and Variable Length Subnet Masks (VLSNs) and how to design a network design using VLSNs. Learn the Cisco IOS (Internetworking Operating System) and command-line interfaces. Develop management skills with router configurations, including static and dynamic routing with various protocols including RIP, RIPv2, EIGRP and OSPF.

May lead to CISCO CCNA (Cisco Certified Network Associate) Certification. Prerequisites: CIS130 and CIS150.

CIS216 Java Programming

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

Thorough coverage of class construction, inheritance, Applets Exception Handling, String Buffer class and Swing objects-oriented techniques. Course is also appropriate for those building on experiences in another programming language. *May lead to Sun Program Developer Certification. Satisfactory/Unsatisfactory grading option is available. Prerequisite: CIS123.*

CIS217 Application Development in Access

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Applications development in Microsoft Access focusing on the programming behind developing database applications, including Visual Basic for Applications (VBA) fundamentals, Macros, Structured Query Language (SQL) and data source connectivity using ADO (ActiveX Data Objects). The course also covers an enhanced review of tables, queries, forms and reports. *Satisfactory/Unsatisfactory grading option is available. Prerequisites: (CIS120 AND CIS123) OR (CIS120 AND CBA134A). Recommended: CBA134A recommended for programming students.*

CIS218 C++ Programming

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

Comprehensive coverage of C++ programming and data structure topics through a problem-solving approach. *May lead to IBM Developer Certification. Satisfactory/Unsatisfactory grading option is available. Prerequisite: CIS123.*

CIS219 Exchange Server

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Using a currently-supported version of Exchange software, students learn how to load and configure an Exchange environment to support a highly-available resilient e-mail environment. Students learn how to administer Exchange, including designing an e-mail solution, configuring connectors, client access and work with recipients and mailboxes. Skill development in security and the use of hub and edge transport servers is included. *May lead to Microsoft Certification.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*


Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

Satisfactory/Unsatisfactory grading option available.

Prerequisites: CIS120 , CIS150, CIS152.

CIS220 Security for Wireless Networks

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Identify security risks, plan and design wireless security solutions based on security models (transitional, enterprise, personal) and security policies - acceptable use policy, password management policy, public access network use policy and virtual private network (VPN) policy. Discuss authentication, encryption, passive discovery, active attacks, monitoring and maintenance. *Supports preparation for Certification Wireless Service Providers (CWSP) certification. Satisfactory/Unsatisfactory grading option is available. Prerequisite:* CIS153.

CIS233 Web Application Development Using PHP

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

A cutting edge Web development dedicated to covering the latest in emerging Internet and Web technologies. Design and maintain interactive and dynamic Web applications with the server-based scripting language PHP/MySQL. *Prerequisites:* CIS123, CIS150.

CIS235 Oracle Forms and Reports

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Workshop offered as needed. Consult CAC Class Schedule.

The tools and utilities used for information gathering and management, including forms, reports, database mining, data warehousing, database performance monitoring and more. *Prerequisite:* CIS129.

CIS237 Oracle Administration


3 Credits (2 Lectures, 3 Labs)

Typically Offered: Workshop offered as needed. Consult CAC Class Schedule.

Internal structures and interactions of an Oracle database with emphasis on managing database capabilities in an effective, efficient manner, including SQL, database tuning, security, backup and recovery. Uses the most current version of the software. *Prerequisite:* CIS129.

COMMUNITY PUBLIC HEALTH (CPH)

CPH100 Introduction to Public Health

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

Introduction to the varied disciplines of public health and applications of public health including analytical methods, biomedical basis, social and behavioral factors, environmental issues, medical care and the future of public health. *Prerequisites:* RDG094 and High School Diploma or equivalent.

CPH178 Personal Health and Community Wellness

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

Analyze basic personal and community health problems as well as long-term benefits and strategies for maintaining a high level of wellness for living in today's world. Use current scientific information to promote individual and community health. *Prerequisites:* CPH100.

CPH296 Public Health Internship

2 Credits (2 Internships - 90 hours)

Typically Offered: Fall and Spring

Evaluate real life situations in the community public health sector and the diverse roles and responsibilities of various public health officials and employees. Students will observe public health professionals applying ethics, public policy principles and best practices in daily operations and special case scenarios. *Satisfactory/Unsatisfactory grading option is available. Prerequisites:* CPH100 and CPH178. *Recommended:* Good communication skills and an interest in Public Health.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



COUNSELING/PERSONAL DEVELOPMENT (CPD)

CPD101 Orientation to Student Development

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Exploration of campus, college, academic resources for student success, and development of the characteristics and strategies of lifelong learning. Includes an introduction to the learning technologies associated with academic success. *Recommended for students in the first-semester of college or transferring from another institution.*


CPD110 Orientation to College

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Exploration of campus, college and academic resources for student success and development of the characteristics and strategies of lifelong learning. Includes career exploration and career planning.

CPD120 Career Awareness

2 Credits (2 Lectures) 

Typically Offered: Consult CAC Class Schedule.

Designed to assist students in career exploration through an awareness of self and educational planning. Includes topics such as current occupational trends, personal/vocational skills and interests and career planning. *Satisfactory/Unsatisfactory grading option is available. Corequisite: RDG094.*


CPD125 Portfolio of Prior Learning

2 Credits (2 Lectures)

Typically Offered: Consult CAC Class Schedule.

An introduction to the concepts of experiential learning. Assist students with identifying and evaluating documentation of prior training and experiential learning outcomes applicable to degree requirements and to their career goals.

CPD164 Research Skills in the Digital Age

1 Credit (1 Lecture) 

Typically Offered: Consult CAC Class Schedule.

Research strategies and how to incorporate them into the writing process. Students will learn about the types of information resources, the strategies for effectively using them and how to evaluate information for credibility. The course will also focus on the legal and ethical use of information, including guidelines for citing resources. *Prerequisites: RDG094 and basic computer skills.*

CPD220 Student Success Capstone

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule.

This course serves as the capstone for CPD110 whereby the coordinated academic, personal and professional development efforts contained in the community college experience are made evident by means of the content within an individual student e-Portfolio. Students, with guidance, create an exemplary e-portfolio demonstrating their skills, knowledge and abilities upon graduation with a credential. *Prerequisite: CPD110.*

CULINARY ARTS (CUL)

CUL105 Food Safety Foundations

1 Credit (1 Lecture) 

Typically Offered: Fall, Spring and Summer

Applied course in food safety and sanitation to identify and analyze the factors that cause foodborne illnesses through the study of proper purchasing, preparation, handling and storage. *Prerequisite: RDG094.*

CUL108 Culinary Boot Camp

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall and Spring

Designed for the home cook or culinary apprentice, Culinary Boot Camp features the basics of cooking, including kitchen terms, knife skills and cooking techniques such as sauté, roast, broil and braise. Learn how to read and follow a recipe, sample and identify an array of spices, herbs, grains, vegetables and meats and plan and cook delicious meals. *May be taken three times for credit.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



CUL110 Asian Cuisine

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Discover the unique flavors, ingredients and culinary traditions of Asian cuisine through this hands-on class. Appreciate the differences between Chinese, Japanese, Thai and Vietnamese cooking ingredients and techniques. Learn to make your favorite Asian appetizers, soups, entrees and desserts.

CUL112 Italian Cuisine

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Discover the unique flavors, ingredients and culinary traditions of Italian cuisine through this hands-on class. Learn to make your favorite Italian appetizers, soups, entrees, pasta, bread, salads and desserts.

CUL114 Mexican and Latin American Cuisine

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Discover the unique flavors, ingredients and culinary traditions of Mexico and other Latin American countries through this hands-on class. Learn to make some of your favorite appetizers, soups, entrees, salads, breads and desserts.

CUL116 French Cuisine

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall, Spring and Summer

Discover the unique flavors, ingredients and culinary traditions of France through this hands-on class. Learn to make some of your favorite appetizers, soups, entrees, salads, breads and desserts. *May be taken three times for credit.*

CUL121 Culinary Concepts

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall, Spring and Summer

Development of knife skills and the principles and techniques of various cooking methods applied to a range of cuisines, from basic cooking to ethnic and specialty foods. Specialty topics will vary: presentation will be a combination of discussion, demonstration, and hands-on food preparation. *May be taken four times for credit.*


CUL125 Sustainable Food Practices

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Overview of the issues currently impacting the U.S. and Global food supply. Discussions on such topics as: local, seasonal, factory farms, artisan and native foods; environmental impact of farming; sustainability on a personal and industry level.

CUL130 Culinary Principles and Applications I

3 Credits (1 Lecture, 6 Labs) 

Typically Offered: Fall and Spring

Introduction to small and large quantity cooking, including principles, techniques and preparation with an emphasis on basic skills, food products, equipment and sanitation practices.

Requires 16 hours of supervised experience catering events outside of class. Prerequisites: MAT082 or higher, RDG094.


CUL142 Applied Food Science

4 Credits (3 Lectures, 3 Labs) 

Typically Offered: Consult CAC Class Schedule

An introduction to the science of food and cooking, this course focuses on the theory of food science as applied in the lab using the scientific method. *Prerequisites: RDG094 and MAT082.*

CUL160 Baking and Pastry I

3 Credits (1 Lecture, 6 Labs) 

Typically Offered: Fall and Spring

Basic principles and techniques required for the commercial preparation of bakery products, including yeast-leavened breads, pies, tarts, quick breads, cookies and cakes. *Requires 16 hours of supervised experience catering events outside of class. Prerequisites: MAT082 and RDG094.*

CUL161 Cake Decorating

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall and Spring

Introduction to the art of cake decorating and how to design and create beautiful cakes using buttercream frosting. Instruction through demonstration and hands-on practice includes baking, leveling and preparing cakes for frosting; proper use of the pastry bag; designing flowers, leaves and borders utilizing a variety of pastry tips; and tinting butter cream frosting. *May be taken three times for credit.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



CUL162 Cakes, Fillings, and Frostings

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall and Spring

Learn the fundamentals of preparing a great cake as a foundation for beautiful cake decorating. Prepare a variety of cakes; pair the cake with an appropriate filling, such as ganache, flavored syrup, fruit or custard. Prepare a variety of frostings, including royal icing and buttercream. Construct a special cake utilizing the various components learned in class. *May be taken three times for credit.*

CUL170 Dining and Beverage Operations

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Theory and practice of food and beverage service; “front of the house” topics such as table and buffet service, customer relations, menu development, management of wait staff, sanitation and safety concerns, and financial considerations of dining operations. *Prerequisite: RDG094.*

CUL185 Catering Operations

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

The theory and practice of planning and executing catering functions with emphasis on sales, marketing, menu development, pricing and controls, equipment, banquet and buffet service and different catering styles. *Prerequisites: RDG094 and MAT082. Recommended: Complete CUL130 or CUL160 prior to taking CUL185. There is a strong emphasis on culinary math skills.*

CUL205 HACCP Principles

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Practical application steps for the implementation of an HACCP food safety and sanitation program. *May be taken once for degree or certificate and up to four times for recertification. Prerequisite: CUL105.*

CUL230 Culinary Principles and Applications II

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall and Spring

Build on principles learned in Culinary Principles and Applications I and advance skills in preparing a variety of

stocks, sauces, soups, fresh vegetables, herbs, meat, poultry and fish. Techniques and speed are refined and improved. *Requires 16 hours of supervised experience catering events outside of class. Prerequisite: CUL130.*

CUL260 Baking and Pastry II

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall and Spring

Build on principles and techniques introduced in Baking and Pastry I and learn advanced skills to produce a variety of bakery, pastry, savory and dessert items. *Requires 16 hours of supervised experience catering events outside of class. Prerequisite: CUL160 OR HRM250.*

CUL261 Advanced Cake Decorating

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall and Spring

Decoration of cakes focusing on the preparation and use of fondant, royal icing and gum paste flowers. Create a variety of flowers and bows that can be used for special occasion and wedding cakes. *May be taken three times for credit. Prerequisite: CUL161 or instructor consent.*

CUL262 Wedding Cakes

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall, Spring and Summer

Design a special occasion cake considering factors such as flavor, texture, and color. Assemble a simple wedding cake using a basic cake, filling, buttercream frosting, fondant, and gum paste flowers. The entrepreneurial aspects of creating a successful Specialty Cake Business will be presented, including creating a portfolio, pricing, portioning, transporting and marketing. *May be taken three times for credit. Prerequisites: CUL161 or instructor consent. Recommended: Prior cake decorating experience.*

CUL263 Everything Chocolate

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Comprehensive hands-on chocolate course emphasizing the techniques necessary to make unique molded chocolate pieces and gourmet chocolate confections. Introduction to chocolate decorating techniques including tempering, coloring, cutting and using transfer sheets and working with modeling chocolate. Students will prepare products using different types of chocolate.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



CUL264 Confectionary Show Pieces

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall and Spring

Create confectionary showpieces to demonstrate culinary artistry and advanced skills. Learn advanced techniques to prepare popular, edible confectionery decorations/showpieces, such as chocolate, marzipan, nougatine and simple sugar work. *May be taken three times for credit. Prerequisites: (CUL160 and CUL263) or instructor consent. Recommended: CUL260.*

CUL265 Artisan and Specialty Breads

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall and Spring

Basic production procedures for producing lean yeast doughs, working with pre-ferments and shaping techniques for forming artisan and specialty breads. *May be taken two times for credit. Prerequisites: CUL160 or instructor consent.*

CUL266 Advanced Pastry

1 Credit (.75 Lecture, 1 Lab)

Typically Offered: Fall and Spring

Advanced pastry baking skills focusing on enriched yeast dough and laminated dough. Learn to mix, laminate and form a variety of products using puff pastry and sweet dough, such as croissants, Danish and brioche. *May be taken two times for credit. Prerequisites: (CUL160 and CUL260) or instructor consent.*

CUL268 Nutrition for Culinary Arts

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to the concepts of basic human nutrition, including the nutrients and their function, sources and requirements, digestion, absorption and metabolism. Apply this knowledge to baking and pastry production, manipulating and substituting ingredients to meet the goals of dietary restrictions such as lactose and glucose intolerance, food allergies, decreased sugar and fats for diabetic, cardiac and weight loss diets, and preparing delicious products for vegans. Explain the nutritional function of a food or ingredient as well as its functional role in the structure, taste, texture and visual appeal of baked goods. *Prerequisite: CUL160.*

CUL290 Commercial Cooking Practicum

2 Credits (2 Practica – 90 Hours)

Typically Offered: Fall, Spring, Summer and Open Entry/Closed Exit

This culinary arts practicum requires 90 hours of practical, professional work experience in a restaurant or food service establishment selected by the student and program coordinator. *Prerequisites: (CUL105 OR NTR105); CUL130; CUL160.*

CUL292 Study Abroad: Italian Cuisine and Culture

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Summer

Study Italian cuisine and culture in three distinct regions of Italy with the Marco Polo Foundation for Mediterranean Culture and Tourism. Participate in hands-on cooking classes featuring the local produce, meats, cheeses and seafood of each region. Site visits and tours guided by experts in the Italian tourism industry enhance the cultural and culinary experience. *Prerequisite: Instructor consent.*

DANCE (DAN)

DAN121 Ballet Dance I

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Introduction to positions, gestures, patterns, moves, and performance of ballet dance. *May be taken four times for credit.*

DAN122 Ballet Dance II

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Intermediate ballet techniques, movement, vocabulary and performance of ballet dance. Topics include advanced positions, gestures, patterns and movements to create and perform original pieces. Students must attend two college or professional level ballet performances. *May be taken four times for credit.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



DAN130 Introduction to Ballroom, Latin and Swing Dance

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Introduction to counts, patterns and positions of Ballroom, Latin and Swing dances, with dance floor etiquette and appropriate music selection included. *May be taken more than four times for credit.*

DAN194 Introduction to Country and Swing Dance

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Introduction to counts, patterns and positions of Country and Swing dances, with dance floor etiquette and appropriate music selection included. *May be taken more than four times for credit.*

DAN195 Jazz Dance


1 Credit (3 Labs)

Typically Offered: Fall and Spring

Introduction to positions, gestures, patterns, moves and performance of Jazz dance. *May be taken more than four times for credit.*

DIESEL/HEAVY EQUIPMENT (DIE)

DIE110 Introduction to Diesel Engines and Fuel Systems

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

An introduction to diesel engines focusing on the theory of operation of the four main subsystems: basic engine, lubrication, cooling and fuel systems. *Prerequisite: Current and valid driver license. Corequisite: RDG094.*

DIE111 Introduction to Electricity and Electronics

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Theory, operation and components of electrical and electronic circuits. *Prerequisite: Current and valid driver license.*


DIE112 Introduction to Mobile Hydraulics

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Theory of operation of hydraulic and hydrostatic systems used in heavy equipment and truck applications, emphasizing the use of electrical and hydraulic schematics and service manuals. *Prerequisite: Current and valid driver license.*

DIE113 Introduction to Power Trains

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

An introduction to power train systems used in heavy equipment focusing on the theory of operation and application of manual, power shift and hydrostatic transmissions. *Prerequisite: Current and valid driver license. Corequisite: RDG094.*

DIE114 Introduction to Power Train Repair and Diagnostics

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

An introduction to diagnosis and repair of heavy equipment manual, power shift and hydrostatic transmission systems. *Prerequisites: DIE113 and current and valid driver license.*


DIE115 Introduction to Diesel Engine Repair and Diagnostics

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

An introduction to troubleshooting, diagnosing and performing repairs on Diesel engines and engine subsystems. *Prerequisites: DIE110 and current and valid driver license.*

DIE116 Introduction to Diesel Technology

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall and Spring

Diesel technology knowledge and skills to prepare students for other heavy equipment technician courses, including fundamental concepts, standard safety procedures, tool use, identification and maintenance of equipment, precision measurement and electrical theory. *Prerequisites: RDG094 and current and valid driver license.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



COURSE DESCRIPTIONS

DIE117 Workplace Success Principles, Practices and Strategies

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An exploration of employer expectations, economic factors related to the success of a business and ethical workplace behavior for an employee that leads to productivity, success of the business and long term employment. *Prerequisite: Current and valid driver license.*

DIE118 Computer Systems for Equipment Technicians

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Basic fundamentals and applications of Caterpillar, Cummins, and Detroit technical mobile computer systems, including onboard computers, sensors, actuators and software. Use of Internet resources and manufacturer software emphasizing the correct use of technical information to develop troubleshooting skills. *Prerequisites: DIE110, DIE111, DIE113 or instructor consent.*

DIE196 Diesel Equipment Technology and HEO Internship I

3 Credits (Internship)

Typically Offered: Fall, Spring and Summer

Career advancement study that allow students to obtain college credit for hands-on work experience. *Prerequisite: Enrolled in DIE, CFE, or HEO program.*

DIE210 Advanced Diesel Engines and Fuel Systems

5 Credits (4 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An in-depth study of modern diesel engines used in off and on-highway application, emphasizing computer controlled fuel systems and new emission standards. *Prerequisite: DIE115.*

DIE211 Advanced Electrical/Electronic Systems

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall and Spring

An application of electrical/electronic principles and theories emphasizing electrical system anomaly diagnostics and repair/replacement of components. *Prerequisite: DIE111.*

DIE212 Advanced Mobile Hydraulics

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall, Spring and Summer

Application of the theoretical concepts, diagnostic procedures, service and repair techniques related to hydraulic and hydrostatic systems used in heavy equipment and truck applications, emphasizing the use of hydraulic schematics, test equipment and service manuals to diagnose and repair. *Prerequisites: DIE211 or instructor consent.*

DIE214 Advanced Power Train Repair and Diagnostics

5 Credits (4 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Modern power train systems used in on and off-highway equipment, emphasizing diagnostic and repair procedures applied to computer controlled power shift and hydrostatic transmission systems. *Prerequisites: DIE113, DIE114.*

DIE222 Mobile Refrigeration

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Principles of operation for the various types of mobile air conditioning systems utilized in diagnosing, testing and reconditioning these systems. *Prerequisite: Current and valid driver license.*

DIE296 Diesel Equipment Technology and HEO Internship II

3 Credits (Internship)

Typically Offered: Fall and Spring

Career advancement study that allows students to obtain college credit for advanced level hands-on work experience. *Prerequisite: DIE196.*

DRAFTING (DFT)

DFT127 Autocad I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introductory course in Computer-Aided Drafting and Design (CADD) computer technology for creation and documentation of 2D drawings. Includes operation and capabilities of

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



computers in CADD, drafting fundamentals, dimensioning, annotating, management of CADD files, printing and plotting.

DFT128 Autocad II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced Autocad two-dimensional applications and techniques. *Prerequisite: DFT127 or instructor consent.*

DFT130 Advanced Computer Aided Drafting Applications

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Advanced work in an area of individual interest within the scope of computer-aided drafting. May be taken three times for credit to fulfill a requirement choice for the CADD Certificate, one credit per enrollment. *Prerequisite: DFT127.*

DFT131 Autocad III

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Basic Commands and Techniques including: wireframe, Surface and Solid Modeling using AutoCAD required to create, shade, render and print 3-Dimensional (3D) drawings. *Prerequisite: DFT127.*

EARLY CHILDHOOD EDUCATION (ECE)

ECE101 Introduction to the Child Care Profession

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

An introduction to the Child Care Profession, focusing on child development and appropriate learning environments for children from birth through age five. Content includes child care licensing and developmentally appropriate curriculum in early childhood settings.

ECE105 Foundations of Early Childhood Education

2 Credits (2 Lectures)

Typically Offered: Fall

An introduction to the field of early childhood education (ECE). Content includes an overview of different types of programs for young children, professional opportunities within the field, and key philosophies and theories of early childhood education. The course is suggested as an entry level course for an ECE certificate or degree.

ECE110 Health, Safety, and Nutrition

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An introduction to practices and procedures used to promote the health, safety, and nutrition of young children in early childhood settings. Includes an emphasis on planning and implementing education experiences that support the development of lifelong healthy habits and attitudes for young children.

ECE116 Guiding and Observing Children

3 Credits (3 Lectures)

Typically Offered: Fall

Positive guidance and discipline techniques to encourage self-discipline and enhance a positive self-image. Techniques to effectively observe and record child characteristics and behavior, with emphasis on appropriate use of observations.

ECE124 Active Learning in Math and Science

3 Credits (3 Lectures)

Typically Offered: Spring

Techniques for helping children to develop cognitive thinking skills, including mathematical concepts, and to develop an awareness and appreciation of the natural environment. Explore math and science problem solving processes used by young children.

ECE128A Environments for Infants and Toddlers

1 Credit (1 Lecture)

Typically Offered: Spring

Practical theories and principles for the arrangement of a safe, healthy environment for infants and toddlers, emphasizing indoor/outdoor environments, material selection and usage

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

based on observation and participation in an infant/toddler care setting. Observations required.

ECE129B Observation Skills in the Infant and Toddler Program

1 Credit (1 Lecture)

Typically Offered: Spring

Techniques and skills to effectively observe and record characteristics and developmental stages of infants and toddlers, including record keeping procedures, an overview of a variety of caregiving settings and an observation in an infant/toddler program. Observations required.

ECE129C Recordkeeping Skills: Infant and Toddler Programs

1 Credit (1 Lecture)

Typically Offered: Spring

Recordkeeping procedures for the daily operations of an infant/toddler program are explored, including an overview of caregiving settings and observations.

ECE183 Curriculum and Learning Materials for Infants

1 Credit (1 Lecture)

Typically Offered: Summer

Practical theories and principles for designing infant curriculum with an emphasis on responsive relationships, developmental stages, applied observation and providing developmentally appropriate, safe learning materials for infant exploration.

ECE184 Curriculum and Learning Materials for Toddlers

1 Credit (1 Lecture)

Typically Offered: Summer

This course explores practical theories and principles for designing toddler curriculum emphasizing responsive relationships, developmental stages, applied observation and providing developmentally appropriate, safe learning materials for toddler exploration.

ECE212 Creative Expressions for Young Children

3 Credits (3 Lectures)

Typically Offered: Fall

Practical methods for developing a creative environment for young children that encourages creativity and skill building for selecting materials, designing environments and planning activities.

ECE220 Managing Food, Health and Safety in Childcare Programs

3 Credits (3 Lectures)

Typically Offered: Spring

Plan, develop, implement and evaluate health, safety and food services for early childhood programs.

ECE221 ECE Program Financial Management

3 Credits (3 Lectures)

Typically Offered: Spring

Plan, develop and implement an accounting and financial system for an early childhood program.

ECE222 Managing and Evaluating ECE Programs

3 Credits (3 Lectures)

Typically Offered: Fall

Management and evaluation skills necessary to effectively operate a quality early childhood program.

ECE223 Planning and Promoting an ECE Program

3 Credits (3 Lectures)

Typically Offered: Spring

An overview of strategies and techniques used to design, maintain, and market an early childhood program to families and community members.

ECE224 Supervision in Early Childhood Programs

3 Credits (3 Lectures)

Typically Offered: Summer

Personnel management in an early childhood program, including staffing, supervision and evaluation.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



ECE226A Cognitive Development of Infants and Toddlers

1 Credit (1 Lecture)

Typically Offered: Fall

Theories, trends and principles of cognitive growth and development of infants and toddlers, and examination of the developmental stages and norms through observation and participation in an infant/toddler care program.

ECE226C Language Development of Infants and Toddlers

1 Credit (1 Lecture)

Typically Offered: Fall

Theories, trends and principles of cognitive growth and language development in infants and toddlers and the examination of developmental stages and norms through observation and participation in an infant/toddler program.

ECE227B Guidance of Infants and Toddlers

1 Credit (1 Lecture)

Typically Offered: Fall

Overview of the social and emotional development of infants and toddlers, including positive relationship building and guidance techniques.

ECE227C Enhancing Social Competency of Infants and Toddlers

1 Credit (1 Lecture)

Typically Offered: Fall

This course explores the social and emotional development of infants/toddlers, including appropriate experiences and environments to enhance development of social competency within a group through observation and participation in an infant/toddler program.

ECE228B Physical Development in Infancy/Toddlerhood

1 Credit (1 Lecture)

Typically Offered: Spring

Study the physical development of infants/toddlers, including observing and participating in infant/toddler activities and customizing a program to meet specific children's needs. Observations required.

ECE229 Early Childhood Practicum

3 Credits (2 Lectures, 1 Practicum)

Typically Offered: Fall, Spring and Summer

The Early Childhood Practicum requires 45 hours of field work in an early childhood program, and completion of an in depth child study where the student will apply concepts learned in Early Childhood Education (ECE) core coursework. This course is typically completed as a capstone for students after they have completed ECE core coursework. This course is intended to be the last course taken toward certificate or degree completion. *Prerequisite: Instructor consent.*

ECE254 Emergent Language and Literacy

3 Credits (3 Lectures)

Typically Offered: Fall

Understanding, assessing and enhancing language and literacy development for the young child.

ECE255 Communications for Family Childcare

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

Methods of developing effective communication with parents in the family childcare program. Building an awareness of diverse family values and implementing a diverse curriculum. Skills to help parents and providers work together to understand the child's needs. *This course has a bilingual component as an option and supplement.*

ECE257 The Business of Family Childcare

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

The multifaceted business aspects of providing family childcare. Fundamentals of a recordkeeping system and the principles of achieving a balance in work and family life while operating a family childcare business. *This course has a bilingual component as an option and supplement.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

ECE271 Creating Early Childhood Environments

3 Credits (3 Lectures)

Typically Offered: Spring

Methods to establish age-appropriate learning environments, incorporating indoor, outdoor and community aspects. Design and implement schedules, lesson plans and transitions to meet the needs of young children in a variety of early childhood settings.

ECE272 Family Child Care Environments

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

Create age-appropriate learning environments which incorporate indoor, outdoor and community aspects for family child care. Design and implement schedules, lesson plans and transitions to meet the needs of all children in a family child care setting. *This course has a bilingual component as an option and supplement.*

ECE276 Child Development

3 Credits (3 Lectures)  

Typically Offered: Fall, Spring and Summer

Theories, trends and research in human development from prenatal through adolescence with emphasis on the principles, general characteristics and behaviors of physical, social, emotional and intellectual growth of children and adolescents. *Prerequisite: RDG094.*

ECE278 Effective Curriculum Design for Teachers of Young Children

3 Credits (3 Lectures)

Typically Offered: Spring

Methods of collecting and organizing resources to provide a play based early childhood curriculum. Planning and implementing a developmentally appropriate curriculum using observation and assessment tools.

ECE279 Curriculum for Family Childcare

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

Plan and implement a developmentally appropriate curriculum for all children in family child care, including methods to collect and organize curriculum resources. *This course has a bilingual component as an option and supplement.*

ECE280 Inclusion of Children with Special Needs

3 Credits (3 Lectures)

Typically Offered: Spring

This course provides an overview of the values, policies and practices of inclusion of children with special needs including laws governing services, individualized plans, and working collaboratively with families.

ECE283 Valuing Families and Diversity

3 Credits (3 Lectures)

Typically Offered: Fall

This course focuses on methods for developing effective communication skills to involve parents in the early childhood program, including building an awareness of diverse family values and implementing a diverse curriculum. Students build skills to help parents and staff work together to understand the child's needs.

ECONOMICS (ECN)




ECN200 Contemporary Economic Issues

3 Credits (3 Lectures)  

Typically Offered: Fall, Spring and Summer

Investigates the basic concepts and principles of economics, and how they operate within the American economic system. Highlights both Macroeconomics and Microeconomics in simplified terms; intended for those who will only take one course in economics. *Prerequisite: RDG094.*

ECN201 Principles of Macroeconomics

3 Credits (3 Lectures)  ECN 2201  

Typically Offered: Fall, Spring and Summer

A descriptive analysis of the structure and functioning of the American economy. Emphasis on basic economic institutions and factors that determine general levels of output, employment, income and prices. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



ECN202 Principles of Microeconomics

3 Credits (3 Lectures) ECN 2202

Typically Offered: Fall, Spring and Summer

A descriptive analysis of 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. *Prerequisite: RDG094.*

EDUCATION (EDU)

EDU221 Introduction to Education

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

A survey of the profession of teaching, with emphasis on current trends and diversity, historical and legal perspectives, and societal influences. *Course includes observation and participation in preK-12 school environments. Prerequisite: RDG094.*

EDU222 Introduction to Special Education

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Overview of Special Education theory and practice in the United States today, including the characteristics of students with specific disabilities and the effects on the individuals and their families. *Prerequisite: RDG094.*

EDU225 Relationships in the Classroom

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

An introduction to pre-K-12 classroom settings and the relationships between teachers and their students. Focus is on class management and developing positive and appropriate individual relationships with students. *Prerequisite: RDG094.*

EDU228 Behavior Management

3 Credits (3 Lectures)

Typically Offered: Fall, Spring

Individual student and group management in K-12 classrooms using proactive strategies. *Prerequisite: RDG094.*

EDU230 Cultural Values in Education

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Closed Exit

Examine the effects of culture on the formation of the child's self-concept and learning styles, including the role of prejudice, stereotyping and cultural incompatibilities in education. *Prerequisite: RDG094.*

EDU233 Global Issues in Education

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

A study of education from an international perspective, including the culturally-based formation of the child's self-concept and learning style. An educational system comparison with another country or countries and an analysis of prejudice, stereotyping and cultural incompatibilities in specific educational systems. *Prerequisite: RDG094.*

EDU240 Provisional Structured English Immersion

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Provisional endorsement course in Introduction to Structured English Immersion for teachers and administrators who are working in the K-12 school setting, or for students in the ASEE program. *Prerequisite: RDG094.*

EDU250 Structured English Immersion II

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Structured English Immersion for teachers and administrators working in the K-12 school system: "the completion 45 hours." *Prerequisites: (EDU240 or equivalent) or (RDG094 and 15-hour Arizona Department of Education Approved Structured English Immersion Workshop).*

EDU270 Education through Drama in the Elementary Classroom

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Hands-on opportunity to learn and teach drama based classroom activities that support learning in the elementary classroom. Develop an understanding of the research supporting the use of drama in the classroom. *Cross Listed: THE270.*

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



ELECTRICITY (ELC)

ELC122 Direct Current and Alternating Current Circuit Analysis

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Basic electricity theory as applied to circuits containing capacitance, inductance and resistance with either direct current or sinusoidal voltages applied.

ELC126 Residential Wiring

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Residential wiring according to the National Electrical Code, with emphasis on proper use of materials and techniques for safe electrical installation or extensions in single- and multi-family dwellings. *Prerequisite: MAT092 or MAT111 with a grade of "C" or higher or placement into MAT121.*

ELC128 Introduction to Programmable Logic Controllers

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Principles and applications of programmable logic controls (PLCs) including numbering systems, control strategies and ladder logic. *Prerequisite: ELC122. Corequisite: ELT223.*

ELC200 Radio Frequency RF/High Vacuum HV

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

High vacuum and plasma systems to manufacture semiconductor devices, process foods, surface hardening, compact disk production and film deposition. *Prerequisite: Sophomore and instructor consent.*

ELC201 Solar Photo Voltaic I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Basic principles of photovoltaic (PV) or solar energy, including PV fundamentals, components, system sizing, troubleshooting strategies and safety hazards.

ELC202 Solar Photo Voltaic II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced principles of Solar Photo Voltaic (PV), including site surveys, SolarPV component size, analysis and creation of a customized system. *Prerequisite: ELC201 and (MAT092 or MAT111 with a grade of "C" or higher or placement into MAT121).*

ELC220 Active Circuits

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Instruction and practical application of basic semiconductor devices (transistors, diodes and Op-Amps) and circuit simulation software. *Prerequisite: ELC122.*

ELC221 Control Devices

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Electrical controls, instruments and devices for industrial equipment such as motor starting and speed control, voltage regulation and automatic controls for AC and DC machines. *Prerequisite: ELC220.*

ELC222 Active Circuits and Systems

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Theory and design of active circuits and systems used in electronic and electro-mechanical equipment, integration of active circuits into subsystems and complete electro-mechanical systems, analog-to-digital and digital-to-analog systems with reference to data acquisition and control. *Prerequisite: ELC220.*

ELC223 Integrated Circuit Devices

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to timers, counters, linear and digital circuits, operational amplifier circuits and systems, voltage regulators, digital number code systems, integrated circuit logic devices, multi-vibrators memory systems, analog-to-digital and digital-to-analog devices. *Prerequisites: ELT128 and ELC220.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



ELC228 Advanced Programmable Logic Controllers

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced principles and applications of programmable logic controls (PLCs), including advanced programming using math function blocks, bit manipulation blocks and subroutines. Course includes an introduction to networking of PLCs and HMI devices. *Prerequisite: ELC128.*

ELC251 Instrumentation

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Alternative energy fields equipment usage, measurements and calculations.

ELECTRONICS (ELT)

ELT128 FPGA Fundamentals

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Theory and application of inverters, AND, OR, NAND and NOR gates, flip-flops, counters, timers and registers using Field Programmable Gate Arrays (FPGAs).

ELT130 Computer Upgrades and Operating Systems I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Apply previous A+ and Networking experience to actually upgrade computers and configure operating systems by doing hands-on projects in a lab-situated class. *May be taken two times for credit.*

ELT223 Microcontroller Fundamentals

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Microcontroller theory and operation, assembly and high level programming and interfacing. *Prerequisite: ELT128. Recommended: Interest in programming.*

ELT260 Advanced FPGA Concepts

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced topics in Field Programmable Gate Array (FPGA) to include memory circuits, VHDL and coding methods for synchronous circuits, design of synchronous circuits and state machines and FPGA architectures. *Prerequisite: ELT128.*

ELT265 MicroBlaze1

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

MicroBlaze programming applications including hardware design components, Embedded Development Kit (EDK), and creating, programming and troubleshooting the MicroBlaze processor. *Prerequisite: ELT260.*

ELT270 MicroBlaze2

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced MicroBlaze programming applications which include creating a multicore MicroBlaze system and interfacing peripherals. *Prerequisite: ELT265.*

ELT275 Embedded Fundamentals

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Application of interfacing a microcontroller to FPGA and the programming languages C, VHDL and LabVIEW. *Prerequisite: ELT270.*

EMERGENCY MEDICAL SERVICES (EMS)

EMS100 CPR for Professionals

.5 Credit (.5 Lecture)

Typically Offered: Fall, Spring and Summer

CPR skills needed to assist victims of all ages, including ventilation with a barrier device, a bag-mask device and oxygen. Use of an automated external defibrillator (AED). Relief of foreign-body airway obstruction (FBAO). Intended for participants who provide health care to patients in a wide variety of settings, including in-hospital and out-of-hospital. Designed for certified or non-certified, licensed or non-licensed

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

healthcare professionals. *Satisfactory/Unsatisfactory grading option is available. May be taken more than four times for credit. Recommended: Students should recertify in CPR every two years to maintain certification/license as an EMT, Paramedic, Nurse or MD.*

EMS101 First Care

.5 Credit (.5 Lecture)

Typically Offered: Fall, Spring and Summer

A course to train a lay person to provide care for patients suffering sudden illness or injury. Focus is on providing immediate care until EMS personnel arrive. Successful students fulfill OSHA, specific business or industry job requirements. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

EMS123 Emergency Medical Responder

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

The primary focus of the Emergency Medical Responder is to initiate immediate lifesaving care to critical patients who access emergency medical services. You will possess the basic knowledge and skills necessary to provide lifesaving interventions while awaiting additional emergency medical services (EMS) response and to assist higher level personnel at the scene and during transport. Emergency Medical Responders function as part of a comprehensive EMS response, under medical oversight. Emergency Medical Responders perform basic intervention with minimal equipment. *Corequisite: EMS100.*

EMS125 Emergency Medical Technician

9 Credits (9 Lectures)

Typically Offered: Fall, Spring and Summer

This course follows the current EMT-Basic National Standard Curriculum and Arizona State Department of Health Services-EMS Division State statutes. The curriculum emphasizes cognitive, affective and psychomotor objectives. This is a State-approved program with a medical director and is updated to State standards as required by the ADHS. *Prerequisites: EMS100 or current proof of AHA Health Care Provider Card or ASHI Professional Rescuer Card, RDG091, Vaccination record: TB Skin Test within last 6 months, MMR, Tetanus and Diphtheria within the last 5 years.*

EMS190 Pediatric Advanced Life Support

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Pediatric Advanced Life Support (PALS) is a classroom, video-based, instructor-led course that uses a series of simulated pediatric emergencies to reinforce the important concepts of a systematic approach to pediatric assessment, basic life support, PALS treatment algorithms, effective resuscitation and team dynamics. The goal of the PALS course is to improve the quality of care provided to seriously ill or injured children, resulting in improved outcomes. *Prerequisite: Advanced Life Support Provider (ALS)-AEMT, Paramedic, Nurse, or MD.*

EMS191 Neonatal Resuscitation Program

1 Credit (1 Lecture)

Typically Offered: Fall, Spring, Summer and Open Entry/Closed Exit

Didactic and psychomotor skill education and training in techniques of newborn resuscitation. Discussion in causes, prevention and management of mild to severe neonatal asphyxia are carefully explained. Prior to course completion, students must present the instructor with a Neonatal Resuscitation course completion certificate from the American Academy of Pediatrics. *Students pay testing fee online/directly to American Academy of Pediatrics. URL: www.aap.org/nrp. May be taken two times for credit. Prerequisite: EMS125 or equivalent.*

EMS200 Basic EMT Refresher

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

The EMT Refresher course incorporates the standards as adopted by the State of Arizona, DHS-BEMS Division and the U.S. Department of Transportation's National Highway Traffic Safety Administration 1994 and 1996 revisions. Prepares students for State recertification and NREMT re-registration. *May be taken two times for credit. Prerequisites: Current basic EMT and CPR certifications.*

EMS201 Basic EMT Renewal Challenge

.5 Credit (.5 Lecture)

Typically Offered: Fall, Spring and Summer

Designed to support the Arizona Department of Health Services (A-DHS) Bureau of Emergency Medical Services (B-EMS) recertification requirements for Emergency Medical Technician Basic (EMTB) according to the U.S. Department of Transportation (DOT) EMT-Basic National Curriculum and the Arizona EMT Basic Refresher Curriculum Guidelines. *Does not meet National Registry of EMT (NREMT) refresher requirements for EMTs. Satisfactory/Unsatisfactory grading*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



option is available. Course may be repeated for recertification.
Prerequisites: Basic EMT and CPR certifications.

EMS208 Intermediate Emergency Medical Technician

11 Credits (7 Lectures, 12 Labs – 285 Hours)

Typically Offered: Fall, Spring and Summer

Designed to meet the U.S. Department of Transportation AZ Department of Health Services Office of Emergency Medical Services requirements for EMT-Intermediate. Provides advanced knowledge and skills related to hypo perfusion states, respiratory arrest or insufficiency, seizure states, cardiovascular emergencies, unconscious states of undetermined etiology, head injury with altered levels of consciousness and chest trauma. *Current EMT certification for one year required. Comprehensive written, oral and practical evaluation on basic EMT skills. Prerequisites: Valid EMT certification; HCP CPR; DHS requirements.*

EMS235 Emergency Cardiac Care

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Designed to acquaint all levels of emergency care providers with basic electrocardiographic (ECG) rhythm analysis and interpretation and related care in a clinical and pre-hospital setting. *Prerequisite: EMS125 or Division Chair consent.*

EMS236 Pharmacology in an Emergency Setting

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Designed for the Emergency Medical Technician dealing with the administration of emergency medications in the field as outlined in current paramedic legislation. In depth coverage of medications enumerated in the algorithms of patient care as defined by the American Heart Association (AHA), Advanced Cardiac Life Support (ACLS). Coverage of medications that interact or interfere with the AHA ACLS algorithms. *Prerequisite: EMS125.*

EMS240 Advanced Cardiac Life Support

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Didactic and psychomotor skills training and validation in techniques of Advanced Cardiac Life Support (ACLS) according to the Current Standards and Guidelines of the

American Heart Association (AHA). Includes endotracheal intubation, ECG arrhythmia recognition, synchronized, unsynchronized and automated defibrillation, cardiovascular pharmacology and electronic pacemaker. *Designed for all health-care related professionals, clinical and pre-hospital. Course may be repeated for recertification. Prerequisite: Current American Red Cross or American Heart Association (AHA) Basic Life Support Healthcare Provider validation, or National Safety Council Green Cross Professional Rescuer, or Division Chair consent.*

EMS241 Advanced Cardiac Life Support (ACLS) Refresher

.5 Credit (.5 Lecture)

Typically Offered: Fall, Spring and Summer

Designed for all levels of emergency medical technicians, nurses, physicians and physicians' assistants to assure maintenance of didactic and psychomotor skill training in techniques of Advanced Cardiac Life Support (ACLS) according to the 2005 Standards and Guidelines of the American Heart Association. Course includes endotracheal intubation, ECG arrhythmia recognition, synchronized and unsynchronized and automated defibrillation, cardiovascular pharmacology and electronic pacemaker. *Prerequisites: Current CPR provider level and ACLS provider level.*

EMS242 Advanced Life Support Refresher Course

3.5 Credits (3.5 Lectures)

Typically Offered: Fall, Spring and Summer

Advanced life support, including initial, focused and continuing processes of assessment; identification and treatment of hypoperfusion states; field interventions; and drug analysis within the scope of the intermediate and advanced EMT and paramedic. Designed to meet requirements for EMT-Intermediate and EMT-Paramedic under guidelines of the US Department of Transportation (US DOT), National Registry of EMTs (NREMT) as recognized by the Arizona Department of Health Services (A-DHS) Bureau of Emergency Services (B-EMS) for recertification. *Prerequisite: Paramedic or IEMT Certification.*

EMS245 Pre-Hospital Trauma Management/ PHTLS

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Designed to instruct pre-hospital care personnel in the critical skills necessary to manage the trauma victim and the emergency scene through the Incident Command System (ICS).

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

Enhances basic emergency medical technology (EMT) skills by focusing on emergency care interventions including victim assessment, initial treatment, resuscitative techniques, victim stabilization, transportation of the victim to an emergency care facility and documentation. *Prerequisite: EMS125 or Basic EMT.*

EMS255 Instructional Strategies for EMT Instructors

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

Participative course to prepare all levels of EMT and/or nurses as instructors in EMT programs; includes writing objectives, preparing class and course schedules, reviewing AZDHS Rules and Regulations. *Prerequisite: AZ-DHS EMT, IEMT, CEP Certification or RN with two years of experience in ER nursing.*

EMS272A Advanced Emergency Medical Technology/Paramedic, Module I

17.5 Credits (17.5 Lectures – 262.5 Hours)

Typically Offered: Fall

The first advanced course in the series for Emergency Medical Technicians explores the acute critical differences in physiology, pathophysiology and clinical symptoms as they pertain to pre-hospital emergency care. Course emphasizes developing diagnostic and advanced emergency treatment skills necessary to care for the acutely ill and seriously injured. *Prerequisites: Certified EMT with one year of experience; FSC129; and entrance assessment.*

EMS272B Advanced Emergency Medical Technology/Paramedic, Module II

8.5 Credits (8 Lectures, 2 Labs – 150 Hours)

Typically Offered: Spring

The second advanced course in the series for Emergency Medical Technicians explores acute critical differences in physiology, pathophysiology and clinical symptoms as they pertain to pre-hospital emergency care. Course emphasizes developing diagnostic and advanced emergency treatment skills necessary to care for the acutely ill and seriously injured. Topics include: drawing and recording blood, intubation, parenteral medications, dosage and side effects, injury prevention, standards of care and effective communication techniques. *Prerequisite: EMS272A. Corequisite: EMS272D.*

EMS272C Advanced Emergency Medical Technology/Paramedic, Module III

8.5 Credits (8 Lectures, 2 Labs – 150 Hours)

Typically Offered: Summer

Designed to provide the emergency medical technician with advanced knowledge about the acute critical differences in physiology, pathophysiology and clinical symptoms, as they pertain to pre-hospital emergency care. Course emphasizes developing diagnostic and advanced emergency treatment skills necessary to care for the acutely ill and seriously injured. *Prerequisite: EMS272B. Corequisite: EMS272E.*

EMS272D Advanced Emergency Medical Technology/Paramedic, Practicum I

6 Credits (6 Practica - 270 Hours clinical/vehicular)

Typically Offered: Spring

This emergency medical technician practicum provides hands-on application of EMS skills and knowledge in a supervised, pre-hospital emergency setting, with an emphasis on demonstrating diagnostic and advanced emergency treatment skills to care for acutely ill and seriously injured patients. Students further develop diagnostic and advanced emergency treatment skills, professional communications with patients, their families, hospital and fire personnel and improve speed and accuracy of delivery of lifesaving patient analysis and intervention care procedures. *Prerequisite: EMS272A. Corequisite: EMS272B.*

EMS272E Advanced Emergency Medical Technology/Paramedic, Practicum II

6 Credits (6 Practica - 270 Hours)

Typically Offered: Summer

This emergency medical technician practicum provides hands-on application of EMS skills and knowledge within a supervised, pre-hospital emergency setting, including patients with diverse physiology, pathophysiology and clinical symptoms. Course emphasizes demonstrating diagnostic and advanced emergency treatment skills to care for acutely ill and seriously injured patients. *Prerequisite: EMS272B. Corequisite: EMS272C.*

EMS275 Critical Care for Paramedics (CCEMTP)

5.25 Credits (5 Lectures, 1 Lab)

Typically Offered: Fall, Spring and Summer

Critical Care Emergency Medical Transport Program (CCEMTP) is designed to prepare paramedics and nurses to function as members of a critical care transport team. Students

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



will gain an understanding of the special needs of critical patients during transport, become familiar with the purpose and mechanisms of hospital procedures and equipment and develop skills to maintain the stability of hospital equipment and procedures during transport. *Prerequisites: (Paramedic or Nurse), CPR, (BTLs or PHTLS), (PALS or PEP) and ACLS.*

ENGINEERING (EGR)

EGR090 STEM Learning Success

1 Credit (1 Lecture)

Typically Offered: Fall

How to learn through effective time and stress management, and the application of study skills to basic presentations from various STEM (Science-Technology-Engineering-Mathematics) career fields and Learning Theory.

EGR092 Survey of Engineering and Science Professions

1 Credit (1 Lecture)

Typically Offered: Fall

A survey of the major science and engineering disciplines and the features of each profession, including basic project work, industry presentations and career development.

EGR102 Introduction to Engineering

3 Credits (2 Lectures, 3 Labs) EGR 1102

Typically Offered: Fall and Spring

Comprehensive engineering problem solving, incorporating the design process; its scientific basis, hands-on teamwork, effective communication, ethical implications and the profession itself. *Prerequisite: MAT182 OR MAT187 . Meets the Computer Competency requirement for CAC degrees.*

EGR105 Beginning MATLAB Programming

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Use MATLAB to solve real-world science and engineering problems. Topics include an introduction to programming, strings, arrays, data structures, control flow, file management, data analysis, basic numerical analysis and graphing. *Prerequisite: MAT151 .*

EGR110 Intermediate MATLAB Programming

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

A continuation of EGR105 covering the design of problem-solving algorithms and their application to scientific and engineering solutions. *Prerequisites: EGR105 and MAT187 .*

EGR116 Introduction to Python Programming

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Basic Python programming language covering string manipulation, user input, calculations, graphing, variables, loops, conditional logic, variables, lists, text files, objects, methods, classes, Graphical User Interface (GUI) development and animation. *Prerequisite: MAT151 .*

EGR121 STEM Simulation Programming

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Use Visual Python to create simulations of physical systems. Topics include simulation programming, graphing and introductory numerical analysis; data acquisition, organization, analysis and visualization. *Prerequisites: (MAT182 or MAT187) and (PHY111 or PHY121 .*

EGR201 Statics

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction to engineering statics, including force systems, resultants, equilibrium of particles and rigid bodies. Course includes an introduction to centroids and centers of mass, area moments of inertia, distributed loading and friction. *Prerequisites: EGR105, PHY121 . Corequisite: MAT262 .*

EGR202 Dynamics

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction to the kinematics of particles, systems of particles and rigid bodies; moving reference frames; dynamics of particles, systems of particles and rigid bodies; equilibrium, energy, linear momentum and angular momentum. *Prerequisite: EGR201.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:

**ENGLISH
(ENG)****ENG090 English Composition I**

3 Credits (3 Lectures)

**Typically
Offered:** Fall, Spring and Summer

An introduction to the writing process, emphasizing idea development, organization, and revision in sentences, paragraphs and short essays, as well as development of grammatical and mechanical skills.

ENG100 English Composition II

3 Credits (3 Lectures)

**Typically
Offered:** Fall, Spring and Summer

An introduction to academic writing with an emphasis on generating ideas, expressing those ideas in essay form and using one's writings to organize content, identify punctuation, grammar and spelling errors and to create effective strategies for their correction. *Prerequisite: ENG090 or appropriate writing placement test score.*

ENG101 English Composition III

3 Credits (3 Lectures) ENG 1101

**Typically
Offered:** Fall, Spring and Summer

Advancement of ability to analyze and write academic, college-level essays with an emphasis on developing ideas and using a process of writing, revising and editing to create organized, coherent, fully articulated essays that reflect the conventions of English grammar, mechanics and usage. *Prerequisites: ENG100 and RDG094.*

ENG102 English Composition IV

3 Credits (3 Lectures) ENG 1102

**Typically
Offered:** Fall, Spring and Summer

Emphasis on critical thinking, close reading, analysis and advanced research skills through the development, writing and revision of complex arguments. *Prerequisite: ENG101* .

ENG121 Applied Technical Writing

3 Credits (3 Lectures)

**Typically
Offered:** Fall and Spring

Business, professional and technical writing styles including syntax and document design necessary in the production of

letters, reports, resumes and other forms of business communication. *Prerequisites: ENG090 and RDG091.*

ENG200 Introduction to Creative Writing

3 Credits (3 Lectures)

**Typically
Offered:** Fall

An introduction to the craft of various literary forms (creative non-fiction, poetry and fiction) emphasizing readings, composing practice and revising various creative pieces for an audience. *Prerequisite: RDG094.*

ENG203 Advanced Composition

3 Credits (3 Lectures)

**Typically
Offered:** Spring

Designed to help transfer students further develop their critical reading, writing and research abilities. Emphasis is placed on the methods of discourse students will need to know in their own disciplines and areas of interest. *Prerequisite: ENG102* .

ENG205 Introduction to the Study of Language

3 Credits (3 Lectures)

**Typically
Offered:** Fall

Learn how language works by focusing on grammatical, social and biological aspects of language. Learn about speech sounds and sound patterns (phonetics and phonology), how words are formed (morphology), and how sentences are organized (syntax). Also, learn how language is acquired (psycholinguistics), how words and phrases are understood (pragmatics and semantics), how language changes (historical linguistics), and how language impacts our society (sociolinguistics). *Prerequisite: RDG094.*

ENG210 Introduction to Fiction Writing

3 Credit (3 Lectures)

**Typically
Offered:** Spring

An introduction to the craft of fiction writing taught through writing exercises and the writing of original short fiction, emphasizing readings in literary/contemporary fiction. *Prerequisite: ENG101* .

ICON LEGEND:**AGEC:** **Intensive Writing:** **Reading Required:** RDG094: **SUN Course:**



ENGLISH AS A SECOND LANGUAGE (ESL)

See ENG and RDG for additional English Language Learner course options.

ESL089 ESL Multi-level Studies



3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

English language listening, speaking, reading and writing skill development, levels of Beginning Literacy - ELAA V. Learners are assessed upon entry to determine English skill levels and placed in the appropriate learning level. The course content varies according to skills that align to the six levels and standards of the Arizona Department of Education Adult Education Standards for English Language Acquisition for Adults (ELAA). Learners progress at their own pace and may repeat the course to continue in the next level as they progress toward completion of all six ELAA levels. *Course may be taken multiple times for credit as long as students demonstrate an appropriate level of improvement based on assessment scores. If a student does not improve and maintain that level of improvement after six sessions, he/she will not be permitted to continue to register for ESL classes. Prerequisite: Pretest to determine existing skill level.*

ENTERTAINMENT INDUSTRY TECHNOLOGY (EIT)


EIT100 History of Rock n' Roll

3 Credits (3 Lectures)  

Typically Offered: Fall and Spring

A survey of the history and development of rock music noting how cultural, social, political and economic conditions have affected its evolution. *Prerequisite: RDG094.*

EIT101 Introduction to Entertainment

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

An introduction to the live entertainment event industry, including survey of industry, job descriptions and employment opportunities, technical requirements and basic operation of

various live performance and other venues. *Prerequisite: RDG094.*

EIT120 Entertainment Law

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

An introduction to legal aspects of the entertainment industry, including performance rights, songwriting and personal appearance contracts, copyright law and trademarks. *Prerequisite or corequisite: EIT101.*

EIT130 Live Audio Production I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

An introduction to concepts and technical skills required for live event sound reinforcement. Topics include the operation of basic sound systems, including consoles, amplifiers, speakers, processors and microphones. *Prerequisite or corequisite: EIT101.*

EIT140 Introduction to Lighting

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Introduction to the technical aspects of concert and theatrical lighting, including basic design, color theory, instrument types, power distribution, control, safety, and the proper hanging, connection, focus and control of instruments and accessories such as gobos, color scrollers, mirrored fixtures and moving lights. *Prerequisite: EIT101.*

EIT151 Digital Audio Workstation

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Use of Pro Tools mixing and automation software in conjunction with editing and recording, including computer operation, troubleshooting and file management. *Recommended: Students should possess basic computer skills and be comfortable navigating personal computers prior to enrolling in this course.*

ICON LEGEND:

AGED: 

Intensive Writing: 

Reading Required: RDG094: 

SUN Course: 



EIT153 Recording Engineering I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Introduction to basic topics in the operation of a 24-track audio recording studio, including audio theory, recording console signal flow, microphone placement, multi-track recording and mixing techniques. At the completion of the course, students will record and mix simple recording sessions. *Prerequisite: EIT151. Recommended: Students need to perform basic operations of the Macintosh operating system and operate Pro Tools recording software.*

EIT170 Performance Skills

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Private coaching and practice for a modern popular music soloist or ensemble that concentrates on proper tone production, technique, style, stage presence and communication skills, incorporating live sound reinforcement and lighting design in the development of a live audience performance. Intended for students with moderate vocal or instrumental music proficiency. *May be taken four times for credit.*

EIT171 Songwriting I

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall

Introduction to the basics of songwriting; including lyrics, rhythmic, melodic and harmonic development, form and emotional content. *Prerequisite: MTC100.*

EIT203 Entertainment Capstone Project

2 Credits (6 Labs)

Typically Offered: Spring

A capstone experience for the entertainment professional, including planning, preparing and developing a specific entertainment project by selecting materials, setting up and monitoring a budget, and overseeing a complete compact disk, project portfolio, or a full concert performance. *May be taken four times for credit, once per each of the four EIT tracks. Prerequisite: Completion of first three semesters of EIT tracks with a grade of "C" or better in each course.*

EIT221 Entertainment Marketing and Promotion

3 Credits (3 Lectures)

Typically Offered: Fall

Entertainment business marketing and promotion elements, specifically the creation of publicity materials, designing the process for developing media relations, a press kit and creating a publicity campaign. *Prerequisite: EIT120.*

EIT222 Artist Management

3 Credits (3 Lectures)

Typically Offered: Fall

The responsibilities and relationships with performers and managers, as well as third party business associates in the music industry will be explored. Topics include managing independent and contracted artists and the manager's role in touring, personal appearances, concert performances/recording, arranging bookings, maintaining contracts, setting up and monitoring budgets. Students will learn to locate, initiate and then manage performers. *Prerequisite: EIT120.*

EIT223 Events/Venue Management

3 Credits (3 Lectures)

Typically Offered: Spring

Hands on and theoretical knowledge needed to work in the events and management arena. The course provides practical training in the organization and management of special music events and venue management. *Prerequisite: EIT120.*

EIT231 Live Audio Production II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

A continuation in concepts and technical skills required for live event audio reinforcement. Topics include advanced sound system setup and operation, in-depth operation of program and monitor consoles, system equalization, flown speaker arrays and musical production considerations. *Prerequisite: EIT130.*

EIT232 Equipment Maintenance

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Introduction to basic concepts and techniques for maintaining and repairing sound and lighting equipment. Topics include basic maintenance, preventative maintenance, troubleshooting, soldering, wiring standards, calibration and testing of a wide variety of sound, lighting and performance-related equipment.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



EIT241 Concert Lighting

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

An in-depth study of concert lighting to include full lighting design and lighting instrument hang and focus for numerous concert arrangements, specifically choir concert, band/orchestra, and dance lighting. Topics include using computer lighting effects, color scrollers, mirrored fixtures, and moving lights. Fieldtrips required to off-campus area theatres to examine and evaluate an array of lighting venues.

Prerequisite: EIT140.

EIT242 Rigging

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Introduction to the technical aspects of rigging for theater and concerts, including single and double purchase counterweight systems, block and tackle, cable and chain rigging, powered hoist systems and portable scenic and lighting trusses.

Prerequisite: EIT101.

EIT254 Recording Engineering II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

A continuation in concepts and technical skills required in recording engineering in a 48-track audio recording studio. Topics include advanced audio theory, signal-processing equipment, advanced musical recording session procedures, production and engineering. At the completion of the course, students should be able to record and mix advanced multi-track recording sessions. *Prerequisite: EIT153.*

EIT255 Recording Engineering III

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

A continuation in the study of recording studio procedures learned in EIT254. Topics include mixing techniques, time code synchronization of various machines, album sequencing and editing, and commercial production. Upon completion, students should be able to conduct any type of recording session and understand the working procedures in a professional recording studio. *Prerequisite: EIT254*

EIT261 Acting for the Camera

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Develop an actor's approach to the special demands of acting in front of a camera. Emphasis is placed on the development of specific performance skills used for television and film acting.

A capstone portfolio includes a variety of audition shorts.

Prerequisite: THE101 or instructor consent. Cross Listed: THE261.

EIT272 Songwriting II

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Spring

Advanced songwriting techniques as a continuation of Songwriting I, including poetic and lyrical rhythm and meter, counterpoint, harmonic development, form and total song development to maximize emotional content. *Prerequisite: EIT171.*

EIT296 Entertainment Internship

3 Credits (Internship – 135 Hours)

Typically Offered: Fall

Students work in entertainment industry internships designed to fit the students' selected track, interests and skills. The student may take only one internship for each of the four tracks of the Entertainment Industry Technology program. May be taken four times for credit, once per each of the four EIT tracks.

Prerequisite: Complete all year one EIT courses in appropriate EIT track with a grade of "C" or better in each course.

ENVIRONMENTAL SCIENCE (ENV)

ENV101 Environmental Science

4 Credits (3 Lectures, 3 Labs)  

Typically Offered: Fall, Spring and Summer

The systematic, scientific study of the environment and the effects of human activities on the environment. Field trips may be required at student's expense. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



FIRE SCIENCE TECHNOLOGY (FSC)

FSC106 Introduction to Emergency Services

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

An overview of fire protection and emergency services delivery at the local and national levels, including: career opportunities in fire protection and related fields; philosophy and history of fire protection/service; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; fire service laws and regulations; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; and an introduction to The National Incident Management Systems (NIMS).

FSC108 Fundamentals of Fire Prevention

3 Credits (3 Lectures)

Typically Offered: Spring

Organization and function of a fire prevention bureau including familiarization with state and local laws and ordinances, codes and principles of fire prevention, the inspector's job and public relations. Fundamentals of fire prevention, including techniques, procedures, regulations and enforcement. Course includes discussion of hazards in ordinary and special occupancies, field trips, and lectures from industry.

FSC109 Fire Protection Systems

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

This course provides a comprehensive and concise overview of the design and operation of the various types of fire protection systems, including fire alarm and detection systems, automatic fire sprinkler systems, special hazard fire protection systems, smoke control and management systems, and security and emergency response systems. *Prerequisite: FSC140.*

FSC110 Fire & Emergency Services Safety & Survival

3 Credits (3 Lectures)

Typically Offered: Spring

Introduction to the basic principles and history related to the 16 National Fire Fighter Life Safety Initiatives, focusing on the need for cultural and behavior change throughout the

emergency services. Encompasses three of the latest trends with the fire service (as it relates to college education): following the FESHE guidelines, a greater emphasis on the application of risk management, and online courses.

FSC111 Emergency Driver Operator

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall, Spring and Summer

Emergency vehicle operator training including the problems facing operators, the personal qualities of emergency vehicle operator candidates, legal responsibilities of operators, and physical forces involved in driving an emergency vehicle. Students must be employed/a member of public safety. *Prerequisites: FSC117, FSC118 and Program Director consent.*

FSC117 Fire Apparatus and Equipment

3 Credits (3 Lectures)

Typically Offered: Fall

Principles of care, maintenance and operation of fire apparatus and pumps. Course includes pump construction and accessories, pumping techniques, power development and transmission. Driving, troubleshooting and producing effective fire streams are emphasized. *Prerequisite: FSC140 or Program Director consent.*

FSC118 Fire Hydraulics

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Review of basic mathematics, hydraulic laws and formulas as applied to the fire service. Application of formulas and calculations to hydraulic problems, water supply variables and discharge requirements for pumps. *Recommended: FSC117.*

FSC119 Fire Service Ethics

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Explore the ethical and moral obligations of fire service professionals who deal with the quality of internal and external customer service.

FSC126 Urban Technical Rescue: Rope Rescue I

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

The basic uses of rope rescue equipment according to the standards of the State of Arizona for Rope 1. *Students must be*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



employed/a member of public safety. Students sponsored by agencies are required to provide their own equipment.
Prerequisite: Program Director consent.

FSC129 Hazardous Materials Awareness/Operations

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Closed Exit

Hazardous Materials First Responder Operations and Confined Space Operations basic skills in accordance with the National Fire Protection Agency Association, including: 1) basic methods of recognition and identification based on the chemical and physical properties of hazardous materials; 2) basic safety procedures when utilizing specific types of protective clothing and equipment; and 3) basic tactical information relating to scene management. Students who wish to test for International Certification must pass the Awareness Level Exam prior to taking the Operations Level Exam.

FSC130 Fitness for Firefighters/CPAT

1.5 Credits (1.5 Lectures)

Typically Offered: Consult CAC Class Schedule.

Skills and abilities required for entry level position in the fire service including physical ability and stamina. Students have the opportunity to take the International Association of Fire Fighters (IAFF) Candidate Physical Ability Test (CPAT) at the end of the course. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

FSC134 Fitness & Conditioning for Firefighters

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Overview of all aspects of fitness for current and prospective firefighters, including physical fitness and workout techniques as they apply to performing specific firefighting tasks.

Prerequisite: Students must sign and submit CAC Liability Waiver to Fire Science Program Director (located on CAC FSC website). Recommended: Students should be in good physical condition and have no existing health conditions which may preclude them from fully participating in the course.

FSC140 Firefighter I and II

11 Credits (10 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introductory fire science course primarily designed for the fire department recruit. Includes firefighting skills, equipment, administrative policies, fire department operations, personnel

policies, and International Fire Service Accreditation Congress Practical Skills Testing. *Prerequisites: EMS100 (certified EMT), EMS125 (CPR), FSC106, FSC129. Corequisite: FSC134.*

FSC180 Wildland Fire, Module 1

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Wildland Fire Module 1 is designed for individuals with little or no experience in the wildland environment and provides preparation for performing as a beginning-level wildland firefighter on an engine or hand crew. This course of instruction will provide an introduction to wildland fire prevention, fire behavior, suppression methods, equipment considerations, safety and incident command. This course encompasses the National Wildfire Coordinating Group content: S-110, S130/S190, S133, S134 and L-180. NWCG Certificate will be awarded after successful completion of the course and examination.

General Information:

1. Student is responsible for obtaining text book package from the SPC-CAC book store.

2. On the first day of class, CAC provides the course tools and equipment.

3. Students are required to complete instructor-facilitated homework assignments that include the successful completion of online independent study courses.

FEMA Website: <http://training.fema.gov/IS/NIMS.asp>

Courses: National Incident Management System NIMS:

IS-100.b - (ICS 100) Introduction to Incident Command Systems. IS-700.a - National Incident Management Systems (NIMS), an Introduction.

IS-200.b - (ISC 200) ICS for Single Resource and Initial Action Incidents.

URL NWCG Website: <http://training.nwcg.gov/courses/s110.html> S-110, Basic Wildland Fire Orientation.

FSC181 NWCG S-131 Advanced Firefighter Training

.5 Credit (.5 Lecture)

Typically Offered: Spring

Advanced firefighter training. National Wildfire Coordinating Group standardized course. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: FSC180.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

FSC182 NWCG S211 Portable Pumps and Water Use

1 Credit (1 Lecture)

Typically Offered: Spring

Combined self-paced/field exercise format providing training for a portable water pump operator, per National Wildfire Coordinating Group (NWCG standardized course).

Satisfactory/Unsatisfactory grading options available.

Prerequisite: FSC180 or Program Director consent.

FSC183 NWCG S212 Wildland Power Saws

1.5 Credits (1.5 Lectures)

Typically Offered: Spring

Skill course designed to instruct prospective chain saw operators in the requirements of the wildfire power saw operator position, per National Wildfire Coordinating Group (NWCG standardized course). *Satisfactory/Unsatisfactory grading option is available. Prerequisite: FSC180 or Program Director consent.*

FSC185 NWCG Basic Incident Command System, I-200

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Designed to introduce Wildland Firefighters to the principles of the Incident Command System (ICS) associated with incident-related performance in wildfires. This course is part one in a series of seven to meet the requirements to obtain NWCG certification for Engine Boss, per National Wildfire Coordinating Group (NWCG standardized course).

Satisfactory/Unsatisfactory grading option is available.

Prerequisite: FSC180.

FSC186 NWCG Crew Boss (Single Resource), S-230

1.5 Credits (1.5 Lectures)

Typically Offered: Fall, Spring and Summer

Instruction to produce student proficiency in the performance of all duties associated with the single resource crew boss, which includes preparation, mobilization, assignment, tactics and safety, and demobilization at wildfires. This course is required to obtain the NWCG Engine Boss qualification, per National Wildfire Coordinating Group (NWCG standardized course). *Satisfactory/Unsatisfactory grading option is available. Prerequisite: NWCG S-131 OR FSC181.*

FSC187 NWCG Engine Boss (Single Resource), S-231

.5 Credit (.5 Lecture)

Typically Offered: Fall, Spring and Summer

Skill course required for Engine Boss, to produce student proficiency associated with the single resource engine boss. This course is one part of seven for the requirements to obtain NWCG certification for Engine Boss, per National Wildfire Coordinating Group (NWCG standardized course).

Satisfactory/Unsatisfactory grading option is available.

Prerequisite: NWCG S-131 OR FSC181.

FSC188 NWCG Ignition Operations, S-234

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

Combined classroom/field exercise providing an entry-level training in the functional roles and responsibilities connected with firing operations at wildfire situations. This course is one part of seven for the requirements to obtain NWCG certification for Engine Boss, per National Wildfire Coordinating Group (NWCG standardized course).

Satisfactory/Unsatisfactory grading option is available.

Prerequisite: NWCG S-290 OR FSC191.

FSC189 NWCG Interagency Incident Business Management, S-260/S-261

2 Credit (2 Lectures)

Typically Offered: Fall and Spring

Interagency incident business management skills to meet general training needs of all firefighter positions and required to obtain National Wildfire Coordinating Group (NWCG) Certification for Engine Boss. This Course is also a requirement for the completion of the CAC Wildland Firefighter I Certificate. *Satisfactory/Unsatisfactory grading option is available.*

FSC190 NWCG Basic Air Operations, S-270

1.5 Credits (1.5 Lectures)

Typically Offered: Fall and Spring

Basic firefighter air operations, including aircraft types and capabilities. Aviation management and safety for flying in and working with agency aircraft, tactical and logistical uses of aircraft and requirements for helicopter take-off and landing areas. This course is required to obtain National Wildfire Coordinating Group (NWCG) certification for Engine Boss and required for Wildland Firefighter I Certificate completion.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



*Satisfactory/Unsatisfactory grading option is available.
Prerequisite: FSC181 or NWCG S-131.*

FSC191 NWCG Intermediate Wildland Fire Behavior, S-290

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Prepares prospective supervisors to undertake safe and effective fire management operations. This course is required to obtain National Wildfire Coordinating Group (NWCG) Certification for Engine Boss and required for the CAC Wildland Firefighter I Certificate. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: FSC180 or NWCG 130/190.*

FSC192 Initial Attack Incident Commander

1 Credit (1 Lecture)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Incident commander focuses on six instructional units: Foundation Skills; Intelligence Gathering and Documentation; Sizing Up the Incident; Developing a Plan of Action; Post-fire Activities; Evaluating Incident Objectives and Managing the Incident. Discussion and exercise format culminate in unit tests and performance based evaluations. *Prerequisite: FSC180.*

FSC193 Followership to Leadership

1 Credit (1 Lecture)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

A self-assessment opportunity for individuals preparing to step into a leadership role while working through a series of problem solving events in small teams. Training includes: leadership values and principles, transition challenges for new leaders, situational leadership, team cohesion factors, ethical decision-making and after action review techniques. *Prerequisite: FSC180.*

FSC202 Supervisory Training for Firefighters

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Administrative and personnel methods applied to fire safety, department organization and personnel management. Includes fire service planning and relationships with other city depts.

FSC203 Fire Operations in the Wildland/Urban Interface

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Designed for structural and wildland firefighters who make tactical decisions when confronting wildland fire that threatens life, property and improvements in the wildland/urban interface. This course fulfills the requirements for S215 NWCG. *Prerequisite: FSC181.*

FSC204 Firefighting Tactics and Strategy

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule.

Methodical approaches for coordinating personnel, equipment and apparatus on an emergency incident with emphasis on building construction, firefighter safety and the functions of command. Commander preparation and application of concepts involved in the development and deployment of on-scene strategic or tactical plans, while utilizing simulation exercises. *Prerequisite: FSC140.*

FSC205 Command Strategies for Major Emergencies

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Methods of managing major emergency incidents to include major wildland fires, complex hazardous materials incidents and multi-casualty medical incidents. Management of incidents with multi-agency coordination and the incorporation of federal, state and local resources while utilizing simulation exercises. *Students must be employed as a member of public safety. Prerequisites: FSC204 or equivalent course, and Program Director consent.*

FSC206 Fire Department Health and Safety Officer

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

Preparation for Public Safety members to become Health and Safety Officers within their Fire Department or organization, including requirements to manage Fire Agency Occupational Health and Safety Programs, both emergency and non-emergency incidents. *Prerequisites: FSC140 and FSC204.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

FSC208 Building Construction for the Fire Service

3 Credits (3 Lectures)

Typically Offered: Spring

Actions necessary to provide for the safety of firefighters operating on the fireground. Effects that fire and heat may have on various types of building construction resulting in the loss of structural integrity. Includes signs and symptoms of structural damage. *Prerequisite: FSC140 or current firefighter.*

FSC209 Fire Origin, Cause & Determination

3 Credits (3 Lectures)

Typically Offered: Fall

Methods of determining points of fire origin, path of travel and fire cause. Includes recognizing and preserving evidence, interviewing witnesses, arson laws, types of arson fires, court testimony, reports and records. *Prerequisite: FSC140 or Program Director consent.*

FSC220 Fire Officer Leadership

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer

Supervisory capabilities which include leadership skills and management styles. Also includes stress management, communication and motivational skills, and roles of the company officer. The course addresses ethics, use and abuse of power at the company officer level, creativity in the fire service environment and management of the multiple roles of the company officer. This course is required for IFSAC certification as a Fire Officer I. *Prerequisites: FSC202 and students must be employed as a member of public safety.*

FSC238 Vehicular Extrication and Victim Stabilization

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

Participative course designed for Emergency Medical Technicians (EMT). Incorporates new knowledge and skills necessary to access, extricate and care for victims of crash incidents. Provides exposure to scene management, including size-up, disentanglement, victim stabilization for single and multi-victim situations, hazardous materials incidents, integration of local emergency medical services (EMS) for patient assessment and management, and standard operating procedures to selected victim scenarios. *Prerequisites: Basic EMT certification or equivalent, nurse with emergency department and Program Director consent.*

FSC250 Ladder Company Officer

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Overview of all aspects of ladder company operations including activities, expectations and responsibilities required of the ladder captain. Designed for the company officer who aspires to the role of ladder company officer.

FSC252 Engine Company Officer

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Overview of all aspects of engine company operations including the activities and responsibilities performed by the captain as well as mechanisms for developing a personal supervisory style. Designed for the aspiring company officer or anyone having the opportunity for the role of a company officer. *Prerequisites: Firefighter, either volunteer or paid.*

FSC255 Fire Instructor I

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

A course designed to train firefighters and emergency services instructors to teach a fire related class with basic instructional knowledge and from a prepared lesson plan. *Students must be employed as a member of public safety. Prerequisite: FSC140 or Program Director consent.*

FSC256 Fire and Emergency Services Instructor II

1.5 Credits (1.5 Lectures)

Typically Offered: Fall, Spring, Summer

Knowledge for the Student/Instructor to develop, modify and recognize lesson plan types and formats; create lesson plans; develop guidelines for the use of audiovisual equipment; organize and plan the supervisory/administrative components of instruction. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: FSC255.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



FRENCH (FRE)

FRE101 Elementary French I

4 Credits (4 Lectures, 1 Lab) FRE 1101

**Typically
Offered:** Fall

The basic skills of listening, understanding, speaking, reading, and writing French, with a survey of cultural aspects of the French language.

FRE102 Elementary French II

4 Credits (4 Lectures, 1 Lab) FRE1102

**Typically
Offered:** Spring

Refinement of basic communication skills in French, emphasizing reading, writing, speaking and listening exercises. Survey of cultural norms, beliefs and traditions from areas where French is spoken. *Prerequisite:* FRE101 or successful completion of 1 year of high school French.

FRE201 Intermediate French I

4 Credits (4 Lectures, 1 Lab) FRE2201

**Typically
Offered:** Fall

Development of reading, writing, speaking and listening skills and proficiency in French at the novice intermediate level. Continuation of understanding, appreciation and sensitivity to cultural norms, values and beliefs in areas where French is spoken. *Prerequisites:* RDG094 and (FRE102 , or 2 years high school French, or instructor consent, or CLEP score 54 or higher).

FRE202 Intermediate French II

4 Credits (4 Lectures, 1 Lab) FRE2202

**Typically
Offered:** Spring

Continued development of speaking, writing, listening and reading proficiency in French at the intermediate level. Continued study and appreciation of cultures of the French-speaking world. *Prerequisite:* FRE201 or three years high school French or instructor consent.

GENERAL EDUCATION DEVELOPMENT (HSE)

HSE089 (previously GED089) High School Equivalency Multi-level Studies

3.25 Credits (3.25 Lectures)

**Typically
Offered:** Fall, Spring and Summer

Development of English Language Arts, Mathematical Reasoning, Science, Social Studies, and other academic knowledge and skills, including college and career readiness. Students are assessed the first class to determine readiness for passing the high school equivalency test. The course content varies according to the skills learners need for test and college and career preparation. Levels and standards align with Arizona Department of Education Adult Education College and Career Ready Standards. Students may continue taking HSE courses as long as they demonstrate an appropriate level of improvement, based on assessment scores. *If a student does not improve and maintain that level of improvement after four sessions, he/she will not be permitted to continue to register for HSE classes. Satisfactory/Unsatisfactory grading option is available. Prerequisite:* Pretest to determine existing skill level.

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

GIS101 Introduction to Geographic Information Technologies

3 Credits (2 Lectures, 3 Labs)

**Typically
Offered:** Fall, Spring and Summer

Introduction to geospatial technologies, including remote sensing, Global Positioning System (GPS), Geographic Information Systems (GIS), statistical analysis, map overviews, map projections and cartography.

GIS102 Map and Image Interpretation

3 Credits (2 Lectures, 3 Labs)

**Typically
Offered:** Fall

Reading, analysis and interpretation of maps/remote sensing images used by geoscientists, including topographic, geologic and other geoscience maps for basic air photo interpretation. Students will detect, identify, and analyze objects or features from film and digital aerial photography and other types of high resolution remotely sensed images. The laboratory portion

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

of this course focuses on manual and digital image interpretation for land cover mapping, forestry, agriculture, and geology and planning applications. *May be taken two times for credit. Prerequisite: MAT118 or MAT162.*

GIS111 Introduction to GIS

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to desktop Geographic Information Systems (GIS) technology using ArcGIS software to produce multidimensional spatial maps.

GIS112 Intermediate GIS

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

Development of intermediate level knowledge and skills in Geographic Information Systems (GIS), including statistical applications, spatial databases, spatial analysis and related technology and an overview of spatial data. *Prerequisites: GIS101, GIS102 and GIS111.*

GIS113 Advanced GIS

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall

Advanced data and spatial analysis techniques in Geographic Information Systems (GIS), using ArcGIS. *Prerequisite: GIS112.*

GIS150 GIS and Global Positioning Systems (GPS)

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Exploration into the functionality and relationship between Geographic Information Systems (GIS) and Global Positioning Systems (GPS), including how to prepare, manage and retrieve GIS data for mobile devices.

GIS196 GIS Internship I

3 Credits (3 Internships – 135 Hours)

Typically Offered: Fall, Spring and Summer

Students work in GIS internships to help student's select GIS specialty track, refine GIS skills and gain teamwork skills. *Prerequisites: GIS101, GIS102 and GIS111 completed with a grade of "C" or better.*

GIS210 GIS Programming

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Application of programming languages to GIS data to analyze data, creates user interfaces, create web services and achieve the full potential of ArcGIS software. *Prerequisite: CIS181 or (CIS216 or CIS218 or any computer programming course).*

GIS230 Applied GIS: The Environment

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Spring

Use Geographic Information Systems (GIS), the leading technique used in ecosystem analysis, to analyze data types, sources and applications; to integrate the physical and topographic information in a landscape with characteristics of the biotic components of the environment; and to address environmental systems and problems. This course focuses on GIS applications to analyze and interpret ecological data. Use GIS to interpret spatial information in relation to land use and to create a decision matrix to plan, manage and restore land for more effective land use and success in environmental restoration efforts. *Prerequisite: GIS113.*

GIS231 Applied GIS: Transportation Systems

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

Geographic Information Systems (GIS) applications to transportation includes 1) modeling techniques such as shortest path, location and allocation, vehicle routing and traffic assignment; 2) integration modeling and planning; and 3) exploration of other transportation systems pertaining to utilities such as pipeline networks and electrical transportation and distribution systems. Apply GIS principles to transportation using state-of-the-practice computing technology for transportation planning in a GIS environment. *Prerequisite: GIS113.*

GIS232 Applied GIS: Communities

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Explore GIS fundamentals as applied to a range of disciplines focusing on municipalities, including 1) city and county government agency data: crime, election, building, assessment and zoning data; 2) techniques for displaying data in map form; and 3) GIS theory, data collection and input, data management,

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



spatial analysis, visualization, map preparation and presentation. *Prerequisite:* GIS113.

GIS250 Remote Sensing I

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to digital remote sensing and satellite imagery analysis, including: fundamental principles of remote sensing with an emphasis on the theoretical and applied realms of the discipline; physics of electromagnetic radiation, digital photogrammetry, image interpretation, spatial resolution, airborne and space-borne sensors and image classification; and reinforcement of concepts through laboratory exercises and field work. *Prerequisite:* GIS102.

GIS251 Remote Sensing II

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Use remote sensing tools to create aerial photography and data for Geographic Information Systems (GIS) based natural resource mapping and monitoring. Explore non-photographic systems used for natural resource management, including satellite-borne sensors, radar, LiDAR, video, digital cameras and various airborne multi-spectral and hyperspectral sensors. Data from these systems and aerial photography provide key inputs to GIS. *Prerequisite:* GIS250.

GIS296 GIS Internship II

3 Credits (3 Internships - 135 Hours)

Typically Offered: Fall, Spring and Summer

The GIS Internship II is designed for GIS A.A.S. Degree seeking students as their capstone course in which they apply their GIS knowledge and skill in a real-world setting based on their selected GIS track, interests and skills. This internship requires 135 hours of applied work in a work setting. *Prerequisites:* GIS113, (DFT131 or GIS241), (GIS230 or GIS231 or GIS232), (CIS120 or AGB124), GIS196 and instructor consent. This is the GIS A.A.S. Degree capstone course and all GIS AAS Degree coursework must be completed prior to enrollment in this course.

GIS299 GIS Research Methods

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to GIS focused research methods useful for academic and professional investigations of information practices and technologies. By examining the applications,

strengths and major criticisms of geospatial methodologies drawn from both the qualitative and quantitative traditions, this course stresses developing skills and knowledge to make various decisions and the steps involved in crafting and executing a research methodology, as well as the ability to create critically assessed GIS-based research. *Prerequisite:* GIS232 or GIS251.

GEOGRAPHY (GEO)

GEO101 Introduction to Cultural and Historical Geography

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule

Historical and contemporary spatial variations among cultural groups and spatial functioning of society. Illustrations from a variety of cultures world-wide showing how culture is constructed, contested, and contextualized. *Prerequisite:* RDG094.

GEOGRAPHY (PHYSICAL) (GPH)

GPH111 Introduction to Physical Geography

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Spatial and functional relationships among climates, landforms, soils, water and plants. *Prerequisite:* RDG094.

GEOLOGY (GLG)

GLG101 Physical Geology

4 Credits (3 Lectures, 3 Labs) GLG 1101

Typically Offered: Fall

Basic principles of geology. Earth's minerals and rocks, external and internal processes, energy resources, and planetary geology. *Prerequisite:* RDG094.

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



GLG102 Historical Geology

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

Rocks, fossils, organic evolution, geologic time, plate tectonics, earth's origin and the major time periods of earth history.

Prerequisite: RDG094.

GLG110 Geologic Hazards and Disasters

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Geological studies as they apply to interactions between humans and the Earth, including geologic processes and hazards, resources and global change. *Prerequisite:* RDG094.

HEALTH CAREERS CENTER (HCC)

HCC100 Introduction to Healthcare

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Introduction to healthcare, medical terminology and the human body, personal and workplace safety, behaviors for success, communication and healthcare skills, and securing and maintaining employment. *Prerequisite:* RDG094.

HCC111 Healthcare Law and Ethics

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

Introduction to the foundations of law and ethics in healthcare, legal issues for healthcare practitioners, and professional, social and interpersonal healthcare issues. *Prerequisite:* RDG094.

HCC112 Interpersonal Skills

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

Develop interpersonal communication skills, including study of basic principles of psychology, development stages of the life cycle, hereditary, cultural and environmental influences on behavior and other professional issues.

Prerequisite: RDG094.

HCC113 Math and Dosage Calculations for Health Occupations

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Mathematical concepts and medical dosage calculation skills required in a variety of health occupations, including mathematical ratios and proportions, decimals, percentages, fractions, U.S. and metric weights and measurements.

Prerequisites: MAT082 and RDG094.

HCC116 Medical Terminology

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

The study and application of medical terminology to all body systems and specialties in various healthcare settings, including anatomy, physiology, organs, blood structures, lymphatic and immune system, musculoskeletal, skin, sense organs, endocrine systems and others. Medical terms relevant to oncology, radiology and nuclear medicine, pharmacology and psychiatry will be covered. *Prerequisite:* RDG094.

HEALTH INFORMATION MANAGEMENT (HIM)

HIM115 Health Information Technology I

3 Credits (3 Lectures)

Typically Offered: Fall

The fundamental concepts in Health Information, including healthcare system, root foundations of the profession, healthcare data and information systems, structures and information management methodologies as well as classification systems, terminologies and vocabularies. At the end of this course, students will be familiar with the healthcare system, accreditation, certification and licensure standards.

Prerequisite: RDG094.

HIM117 Health Information Technology II

3 Credits (3 Lectures)

Typically Offered: Spring

The fundamental concepts on the management and uses of data in Health Information, including healthcare informatics data management and use to include an overview of statistics, research and epidemiology, performance management, patient safety, data analysis, registries and law. *Prerequisite:* HIM115.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:




HIM121 Legal Aspects of Health Information

2 Credits (2 Lectures)

Typically Offered: Spring

Continued study of law and ethical concepts including the medical legal system, criminal vs. civil law, statutory law, contracts, administrative law, medical malpractice and the lawful principles related to patient care and Health Information Management. *Prerequisites:* HCC111, HIM115. *Corequisite:* HIM117.


HIM131 Introduction to Insurance and Insurance Billing I

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Introductory course to insurance systems, billing processes, clinical vocabularies, ethical and legal issues and computer applications used to complete these processes. *Prerequisite:* RDG094.

HIM138 ICD Coding

3 Credits (3 Lectures) 

Typically Offered: Fall

Fundamental coding techniques using the current International Classification of Diseases Clinical Modification and provides hands-on practical skills for student learning and skills building. Emphasis is placed on specificity and the application of professional standards in the assignment of codes to diagnoses and procedures using coding rules. *Prerequisite:* RDG094. *Corequisite:* HCC116.

HIM139 ICD Coding for ICD-10 CM & PCS

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall and Summer

Coding nomenclature using ICD-10-CM and PCS implemented nationwide and effective 2014. Code sets for ICD-10 require higher level anatomy and physiology knowledge and increased levels of specificity. This course is only open to HIM students, graduates and credentialed coders familiar with ICD-9 or HIM Director approval. *Prerequisites:* (HIM138 and HCC116).

HIM158 CPT Coding

3 Credits (3 Lectures)

Typically Offered: Spring

Fundamental coding techniques using the Current Procedural Terminology (CPT) and the HCPCS coding system and providing hands-on practical skills for student learning and skills building. Emphasis is placed on specificity and the application of professional standards in the assignment of codes to diagnoses and procedures using coding rules. *Prerequisite:* HIM138.


HIM160 Health Information Technology Seminar

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Summer

Students will increase their understanding of documentation and documentation requirements using sample paper records. In addition, students will increase their understanding of the EMR using AHIMA's Virtual Lab. Students will learn to navigate within the EMR and locate specific pieces of documentation. *Prerequisite:* HIM117.

HIM161 Introduction to Insurance and Insurance Billing II

3 Credits (3 Lectures) 

Typically Offered: Spring

Real world scenarios for student application of knowledge and skills building in data content, insurance systems, billing processes, clinical vocabularies, ethical and legal issues, and computer applications. *Prerequisite:* RDG094.

HIM175I Practicum – Coding and Reimbursement

4 Credits (4 Practica – 180 hours)

Typically Offered: Summer

Practical experience of 180 hours, under supervision of an instructor, with an emphasis on applying medical coding principles and procedures to medical records. *Prerequisite:* Instructor consent.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 

**HIM200 Healthcare Reimbursement**

2 Credits (2 Lectures)

**Typically
Offered:** Fall

Builds on fundamental concepts in reimbursement methodologies, including clinical coding, coding compliance, reimbursement systems and revenue cycle management. At the end of this course students will be familiar with reimbursement reporting requirements. *Prerequisite: HIM158.*

HIM205 Healthcare Statistics and Research

2 Credits (2 Lectures)

**Typically
Offered:** Fall

Emphasizes developing student's knowledge and skills with data collection methods, computation, organization and presentation of reported health statistics. Expands on Institutional Review Board (IRB) processes and policies. *Prerequisites: HIM160 and (MAT118 or higher or BUS101).*

HIM208 Advanced Coding

2 Credits (2 Lectures)

**Typically
Offered:** Fall

Continued study in intermediate coding concepts and advanced student skill training utilizing all coding methodologies. Students perform coding functions using real medical records and both the manual system and an encoder/grouper. *Prerequisites: HIM138 and HIM158.*

HIM210 Supervision and Quality

2 Credits (2 Lectures)

**Typically
Offered:** Spring

Enhances the student's ability to perform qualitative and quantitative analysis of data for peer review, quality assessments, and the development of improvement programs in healthcare facilities and organizations for reporting and accreditation requirements. *Prerequisite: HIM205.*

HIM215 Health Information Systems

3 Credits (3 Lectures)

**Typically
Offered:** Spring

Continued study in the areas of data storage, retrieval and security as well as information systems and communication technologies. This course promotes the application of analysis, design, evaluation, selection, acquisition and utilization of health information systems in healthcare organization settings. *Prerequisites: CBA113A and HIM160. Corequisite: CBA114A.*

HIM275Q Health Information Technology Practicum

4 Credits (4 Practica – 180 Hours)

**Typically
Offered:** Summer

Through a practical externship of at least 180 hours, students apply knowledge and skills learned in the Health Information Technology program in a health care facility setting under the direction of a Registered Health Information Technician (RHIT) or Registered Health Information Administrator (RHIA). *Prerequisites: HIM215, (all program requirements completed prior to enrollment in HIM275Q) and HIT Program Director consent.*

HEALTH KNOWLEDGE AND SKILLS (HKS)**HKS155 Introduction to Phlebotomy**3 Credits (2 Lectures, 3 Labs) **Typically
Offered:** Summer

An introduction to the basic knowledge and practical experience necessary for the safe and successful collection of blood specimens. Students have the opportunity for practical experience in a hospital or doctor office setting. *Prerequisites: High School Diploma or GED; Immunizations required; and RDG094. Corequisite: HKS255.*

HKS255 Phlebotomy Practicum

3 Credits (3 Practica – 135 hours)

**Typically
Offered:** Summer

An application of basic phlebotomy training to provide safe and successful collection of blood specimens. Students have the opportunity for practical experience in an outpatient blood collection site or hospital setting. *Corequisite: HKS155.*

HEALTH PATIENT MANAGEMENT (HPM)**HPM105 Pharmacy Techniques**3 Credits (2.5 Lectures, 1.5 Labs) **Typically
Offered:** Spring

An overview of pharmacy. History of pharmacy, pharmacy terminology, role and responsibilities of a pharmacy technician in comparison to that of the pharmacist, and ethical and legal information. Theory of procuring, manipulating, calculating and preparing drugs for dispensing. Apply hands-on skills for evaluation before practicum. *Prerequisites: RDG094, HCC113, and Program Director approval.*

ICON LEGEND:**AGEC:** **Intensive Writing:** *IW***Reading Required:** RDG094: **SUN Course:** 



HPM136 Business Skills for Massage Therapy

3 Credits (3 Lectures)

Typically Offered: Spring

Career options in the massage field include private practice, working in medical settings, and resort and spa work. Preparation for joining the workforce in all capacities are covered including professional ethics, resume writing and basics of accounting, insurance billing and preparing for State licensing. Course is designed especially for those entering or already in the massage therapy field. *Prerequisite: RDG094.*

HPM140 Medical Assisting Skills I

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Medical record, medical asepsis and the OSHA Standard, sterilization and disinfection, vital signs, the physical examination, eye and ear assessment and procedures, physical agents to promote tissue healing, gynecologic, prenatal and pediatric examinations, minor office surgery and administration of medication. *Prerequisites: RDG094 and instructor consent.*

HPM141 Medical Assisting Skills II

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Cardiopulmonary procedures, colon procedures, radiology and diagnostic imaging, introduction to the clinical laboratory, urinalysis, phlebotomy, hematology, blood chemistry and serology, and microbiology. *Prerequisites: RDG094 and instructor consent.*

HPM150 Chiropractic Assistant Training

2 Credits (2 Lectures)

Typically Offered: Fall

Introduction to administrative and clinical chiropractic procedures. This course is a requirement in the massage therapy program and is available as certification training for individuals who are not in the massage therapy program but who wish to pursue a career as a chiropractic assistant.

HPM151 Study of Acupuncture for Healthcare Professionals

1 Credit (1 Lecture)

Typically Offered: Fall

Introduction to acupuncture principles and practices that may be part of patient care in a chiropractic medical practice. This course is required in the massage therapy program and is available for individuals who wish to pursue a career as a chiropractic assistant.

HPM152 Study of Physiotherapy for Healthcare Professionals

1 Credit (1 Lecture)

Typically Offered: Fall

Introduction to physiotherapy principles and practices that may be part of patient care in a chiropractic medical practice. This course is a requirement in the massage therapy programs and is available to individuals who wish to pursue a career as a chiropractic assistant.

HPM154 Complementary and Alternative Medicine

3 Credits (3 Lectures)

Typically Offered: Fall, Spring, and Summer

An overview of various types of complementary and alternative modalities (CAMs) including Asian therapies, Naturopathy, herbal medicine, chiropractic and massage treatments, mind-body techniques and spiritual healing. *Prerequisite: RDG094.*

HPM160 Applied Anatomy for Massage Therapy

3 Credits (3 Lectures)

Typically Offered: Fall

Study of bones, joints and muscles while developing palpation skills with practical application in concurrent massage class experience. *Prerequisite: RDG094.*

HPM162 Basic Pharmacology for Health Occupations

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Introduction to drug sources, uses and classifications including purpose, side effects, cautions, interactions and patient education. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC:

Intensive Writing:


Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

HPM164 Pharmacy Certification Review

2 Credits (2 Lectures) 

Typically Offered: Spring

Preparation for taking the national pharmacy certification exam necessary for placement in the field and verification of competency. *Prerequisite: RDG094 and Program Director consent.*

HPM169 Clinical Laboratory Assistant Basics I

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall

This course defines the role of the clinical laboratory assistant in the healthcare delivery system: infection control principles, safety practices, procedures to collect specimens, methods for preparing blood and body fluid specimens for analysis, and the performance of basic tests at the clinical assistant level will be discussed. An overview of quality control protocols and potential pre-analytical errors will be provided. *Prerequisites: Phlebotomy Certificate and instructor consent.*

HPM170 Clinical Laboratory Assistant Basics II

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

An introduction to the basics of six areas of the clinical laboratory; Immunology, Clinical Chemistry, and Donor Room (collection, screening, and component processing) are discussed as well as a focus on specific Hematology, Urinalysis, and Microbiology testing at the clinical assistant level. *Prerequisite: HPM169.*


HPM171 Administrative Medical Procedures

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall

Medical business practices, basic practice finances, managed care/insurance and procedural and diagnostic coding.

HPM173 Pathophysiology

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

Pathological conditions and terminology, causes, incidence, signs, symptoms, diagnosis, treatment and special considerations associated with the major diseases of the body systems studied. *Prerequisite: RDG094.*

HPM175C Medical Assistant Degree Practicum

4 Credits (4 Practica – 180 Hours)

Typically Offered: Contact CAC Class Schedule

Supervised, unpaid practical experience of 180 hours in an ambulatory health care setting performing both administrative and clinical procedures. This course is required for the Medical Assistant A.A.S. Degree. *Students must receive a grade of C or better to pass this course. Students who fail will not be allowed to repeat this course. Students who withdraw with instructor's consent may retake this course only once with instructor consent. Prerequisites: Mandatory requirements specific to HPM175C must be met before enrollment; all program courses must be successfully completed before enrolling in HPM175C and instructor consent.*

HPM175E Medical Assistant Certificate Practicum

4 Credits (4 Practica – 180 Hours)

Typically Offered: Contact CAC Class Schedule

Practical experience of 180 hours in a medical facility, under the supervision of a physician, where the students apply clinical principles and procedures in a situation with actual patient contact. This course is required for the Medical Assistant Certificate. *Prerequisite: Instructor consent.*

HPM175H Practicum – Pharmacy Technician

4 Credits (4 Practica - 180 Hours))

Typically Offered: Contact CAC Class Schedule

Practical experience of 180 hours under the supervision of a pharmacist performing a variety of technical duties related to preparation and dispensing of drugs according to standard procedures. *Students must receive a grade of "C" or better to pass this course. Students who fail will not be allowed to repeat this course. Students who withdraw with instructor's permission may retake this course only once with instructor permission. Prerequisites: Mandatory requirements specific to HPM175H must be met before enrollment; all program courses must be successfully completed before enrollment and instructor consent.*

HPM175L Practicum – Massage Therapy – Relaxation Massage

1 Credit (1 Practicum - 45 Hours)

Typically Offered: Fall, Spring and Summer

Practicum consisting of 45 hours of hands-on experience with emphasis on relaxation (Swedish) massage under the

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



supervision of an instructor. *Students must receive a grade of "C" or better to pass this course. Students who fail will not be allowed to repeat this course. Students who withdraw with instructor's permission may retake this course only once with instructor permission. Prerequisites: Mandatory requirements specific to HPM175L must be met before enrollment; instructor consent. Corequisite: HPM180.*

HPM175M Practicum – Massage Therapy – Therapeutic Massage

1 Credit (1 Practicum – 45 Hours)

Typically Offered: Fall, Spring and Summer

Practicum consisting of 45 hours of hands-on experience with emphasis on therapeutic massage under supervision of an instructor. *Students must receive a grade of "C" or better to pass this course. Students who fail will not be allowed to repeat this course. Students who withdraw with instructor permission may retake this course only once with instructor permission. Prerequisites: Mandatory requirements specific to HPM175M must be met before enrollment; instructor consent. Corequisite: HPM181.*

HPM175N Practicum – Massage Therapy for Special Populations

1 Credit (1 Practicum – 45 Hours)

Typically Offered: Fall, Spring and Summer

Practicum consisting of 45 hours of hands-on experience with emphasis on massage for special populations under supervision of an instructor. *Students must earn a grade of "C" or better to pass this course. Students who fail will not be allowed to repeat this course. Students who withdraw with instructor's permission may retake this course only once with instructor permission. Prerequisites: Mandatory requirements specific to HPM175N must be met before enrollment; instructor consent. Corequisite: HPM281*

HPM175O Practicum – Massage Therapy – Spa Treatments and Hydrotherapy

1 Credit (1 Practicum – 45 Hours)

Typically Offered: Fall, Spring and Summer

Practicum consisting of 45 hours of hands-on experience with emphasis on spa treatments and hydrotherapy under supervision of an instructor. *Students must receive a grade of "C" or better to pass this course. Students who fail will not be allowed to repeat this course. Students who withdraw with instructor's permission may retake this course only once with instructor permission. Prerequisites: Mandatory requirements specific to HPM175O must be met before enrollment; instructor consent. Corequisite: HPM282.*

HPM175P Clinical Laboratory Assistant Practicum

3 Credits (3 Practica - 135 Hours)

Typically Offered: Summer

Practical experience of 135 hours under the supervision of a laboratory technologist performing a variety of clinical skills including phlebotomy, waived testing, basic procedures, documentation and the use of information systems. *Students must receive a grade of C or better to pass this course. Students who fail will not be allowed to repeat this course. Students who withdraw with instructor's permission may retake this course only once with instructor permission. Prerequisites: Phlebotomy certificate; all program courses must be successfully completed before enrollment; mandatory requirements specific to HPM175P must be met before enrollment and instructor consent.*

HPM180 Therapeutic Massage I

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Introduction to massage history, benefits and contraindications, draping, hygiene and safety, relaxation (Swedish) massage techniques and benefits, and business and ethics.

HPM181 Therapeutic Massage II

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An "event massage" such as a chair or a sports massage may be performed in a public setting. Additional emphasis is on working long-term with athletes to maximize performance. Business strategies, hygiene and proper body mechanics for the massage therapist are addressed.

HPM210 Review for Registered Medical Assistant Examination

3 Credits (3 Lectures)

Typically Offered: Contact CAC Class Schedule

A comprehensive approach to reviewing both administrative and clinical competencies for the medical assistant A.A.S. degree graduate preparing to take the Registered Medical Assistant (RMA) Medical Assistant Certification Examination offered by the American Medical Technologists (AMT). *Prerequisite: Medical Assistant graduate with an Associate of Applied Science Degree.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

HPM280 Therapeutic Massage III

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Muscle-specific and condition-specific massage designed to aid in the rehabilitative process, including relief of carpal tunnel syndrome, thoracic outlet syndrome, sciatic, low back and neck pain. *Prerequisite: Instructor consent.*

HPM281 Therapeutic Massage IV

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

"Special populations" massage includes pregnancy, geriatric and lymphatic massages and foot reflexology. Also covered is the use of proper body mechanics, hygiene, safety, and draping and professional decorum.

HPM282 Therapeutic Massage V

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

"Spa technologies" include hot rock massage, scrubs, muds and wraps which are popular in resorts and spas. Industry standards such as hygiene and draping as well as job-search recommendations are included.

HEAVY EQUIPMENT OPERATIONS (HEO)

HEO100 Introduction to Heavy Equipment Operations

5 Credits (1 Lecture, 12 Labs)

Typically Offered: Summer

Basic heavy equipment operation knowledge and experience, including theory, safety and operation of various types of equipment used in the industry, as well as workplace ethics, time management and teamwork. *Prerequisites: Current and valid driver license and instructor consent.*

HEO121 Heavy Equipment Operations I

5 Credits (3 Lectures, 6 Labs)

Typically Offered: Fall and Spring Summer

Introduction to the use of heavy equipment with emphasis on safety, preventive maintenance and grade stake interpretation. *Prerequisite: Valid driver license.*

HEO122 Heavy Equipment Operations II

5 Credits (3 Lectures, 6 Labs)

Typically Offered: Spring

Expanded operation of heavy equipment to include interpreting blueprints, staking and estimating costs, using technology to conduct research and construct more complex projects. *Prerequisites: HEO121 and a valid driver license.*

HEO127 Heavy Equipment Reconditioning

4 Credits (2 Lectures, 6 Labs)

Typically Offered: Fall and Spring

Fundamentals of heavy equipment reconditioning procedures. *Prerequisite: Valid driver license.*

HEO128 Diesel Equipment Service and Repair

4 Credits (2 Lectures, 6 Labs)

Typically Offered: Fall, Spring and Summer

Service and repair of diesel and heavy equipment. *Prerequisite: Current and valid driver license.*

HEO221 Advanced Heavy Equipment Operations III

5 Credits (3 Lectures, 6 Labs)

Typically Offered: Fall

Advanced instruction and application of heavy equipment operation comprehensive skills, knowledge and abilities. *Prerequisites: HEO122 and valid driver license.*

HEO222 Applied Heavy Equipment Construction

5 Credits (3 Lectures, 6 Labs)

Typically Offered: Fall, Spring and Summer

Heavy Equipment Operator capstone construction project and introduction to job seeking techniques. *Prerequisites: HEO122 or instructor consent; current and valid driver license.*

HEO223 Commercial Driver License Preparation

3 Credits (3 Lectures)

Typically Offered: Spring

Preparation for taking the Arizona Department of Motor Vehicle's written examination, the pre-trip vehicle inspection

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



procedures, vehicle maneuvering control skills and on-road driving test. *Prerequisite: HEO121 or DIE110.*

HEO225 Preventive Maintenance

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall, Spring and Summer

The development of skills necessary to identify, prevent and repair mechanical problems as related to the maintenance of heavy earth-moving equipment. *Prerequisite: Current and valid driver license.*

HIGH SCHOOL EQUIVALENCY (HSE)

HSE089 (previously GED089) High School Equivalency Multi-level Studies

3.25 Credits (3.25 Lectures)

Typically Offered: Fall, Spring and Summer

Development of English Language Arts, Mathematical Reasoning, Science, Social Studies, and other academic knowledge and skills, including college and career readiness. Students are assessed the first class to determine readiness for passing the high school equivalency test. The course content varies according to the skills learners need for test and college and career preparation. Levels and standards align with Arizona Department of Education Adult Education College and Career Ready Standards. Students may continue taking HSE courses as long as they demonstrate an appropriate level of improvement, based on assessment scores. *If a student does not improve and maintain that level of improvement after four sessions, he/she will not be permitted to continue to register for HSE classes. Satisfactory/Unsatisfactory grading option is available. Prerequisite: Pretest to determine existing skill level.*

HISTORY (HIS)

HIS101 United States History I

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

A survey of the significant phases of the history of the United States from pre-European contact to the Civil War and Reconstruction, stressing the political, military, social and economic development of the new republic. *Field trips may be required. Prerequisite: RDG094.*

HIS102 United States History II

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

A survey of United States history after Reconstruction to the present, emphasizing the origins and development of the problems confronting a great industrialized world power and the issues arising from the two world wars. *Field trips may be required. Prerequisite: RDG094.*

HIS103 History of Western Civilization I

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Western world development from its beginnings to the early 18th century, centered on the cultural, scientific, religious and political contributions of the great western civilizations. Field trips may be required. *Prerequisite: RDG094.*

HIS104 History of Western Civilization II

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Western world development from early 18th century to modern day, stressing its cultural, intellectual, military and political conflicts and contributions. *Prerequisite: RDG094.*

HIS105 Arizona History

3 Credits (3 Lectures)

Typically Offered: Every other spring; consult CAC Class Schedule.

Survey of Arizona history from the Spanish Exploration period through the Mexican Republic, American territorial status and United States statehood to the present. Includes the evolution of state government and politics and the contributions of the cultural, religious and ethnic groups making up Arizona culture. *Field trips may be required. Prerequisite: RDG094.*

HIS106 Mexican-American History

3 Credits (3 Lectures)

Typically Offered: Fall

Examination of the origins and development of Mexican-American peoples and their contributions to the cultural, social, economic and historical development of the United States. Emphasis on social, economic, and political trends from the Mexican American War to the present. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:

**HIS107 African-American History I**

3 Credits (3 Lectures)

Typically Offered: Fall

A survey of African-American life and history in the United States from 1619-1865. Emphasizes how enslaved Africans lived, worked, socialized and defined themselves in antebellum America, as they developed and sustained a new cultural community that was an amalgamation of African-American community and familial values and traditions. *Prerequisite:* RDG094.

HIS108 Eastern Civilization – Beginnings to 1850

3 Credits (3 Lectures)

Typically Offered: Fall

An examination of the characteristics and development of civilizations, religions and philosophies of the Far East and Southeast Asia from ancient times to the mid-nineteenth century. *Prerequisite:* RDG094.

HIS201 Women in United States History

3 Credits (3 Lectures)

Typically Offered: Spring and Summer

The history of women in American society from colonial times to the present with an emphasis on female leadership, social movements, race, ethnicity, social class, work, religion and the changing definitions of women's roles. Field trips may be required. *Prerequisite:* RDG094.

HIS208 Eastern Civilization – 1850 to Modern Times

3 Credits (3 Lectures)

Typically Offered: Spring

An examination of the characteristics and development of civilizations, religions and philosophies of the Far East and Southeast Asia from the mid-nineteenth century to modern times. *Prerequisite:* RDG094. *Corequisite:* ENG102 .

HONORS (HNR)**HNR201 Honors Seminar I**

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Honors students and faculty work closely together on in-depth projects outside of the regular curriculum. The Honors Project is developed and research is shared through in-depth discussion, analysis and presentation of findings. *Required for Honors students in the 18-hour academic transfer program. Must be taken concurrently with each content course taken for Honors credit. Prerequisites:* HNR204, ENG101 and Honors cohort student. *Corequisites:* HNR205, ENG102 and each content course for Honors credit.

HNR202 Honors Seminar II

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Honors students and faculty work closely together on in-depth projects outside of the regular curriculum. The Honors Project is developed and research is shared through in-depth discussion, analysis and presentation of findings. *Required for Honors students in the 18-hour academic transfer program. Must be taken concurrently with each content course taken for Honors credit. Prerequisites:* HNR204, ENG101 and Honors cohort student. *Corequisites:* HNR205, ENG102 and each content course for Honors credit.

HNR203 Honors Seminar III

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Honors students and faculty work closely together on in-depth projects outside of the regular curriculum. The Honors Project is developed and research is shared through in-depth discussion, analysis and presentation of findings. *Required for Honors students in the 18-hour academic transfer program. Must be taken concurrently with each content course taken for Honors credit. Prerequisites:* HNR204, ENG101 and Honors cohort student. *Corequisites:* HNR205, ENG102 and each content course for Honors credit.

ICON LEGEND:**AGEC:** **Intensive Writing:** **Reading Required:** RDG094: **SUN Course:**



HNR204 Honors Colloquium I

3 Credits (3 Lectures, 3 Recitations)

Typically Offered: Fall and Spring

The Honors Colloquium is required for Honors students in the 18-hour program. Honors Colloquium I is the first course requirement in the honors sequence designed for the academic transfer student. HNR204 may be taken either Fall or Spring semester, but must be taken independently of other Honors courses. The course provides a forum for reading and analyzing Daniel J. Boorstin's *The Discoverers: A History of Man's Search to Know His World and Himself*, an academic text which examines the significance and chronology of major events and movements in Western civilization, as well as the contributions of certain individuals and societies or groups. Application, analysis and synthesis are encouraged in oral and written responses. In addition, the course offers the opportunity for the Honors student to complete a proposal for an in-depth study/research project in an area of interest, monitored by the colloquium professor and a mentor who has uncommon knowledge or ability in the area of the student's interest. Also, the course provides enrichment activities of cultural significance. *Prerequisite:* RDG094. *Corequisite:* ENG101 .

HNR205 Honors Colloquium II

3 Credits (3 Lectures, 3 Recitations)

Typically Offered: Fall and Spring

The Honors Colloquium is required for Honors students in the 18-hour program. Honors Colloquium II is the second course requirement in the Honors course sequence designed for the academic transfer student. The course provides a forum for reading and analyzing Daniel J. Boorstin's *The Creators: A History of Heroes of the Imagination*, an academic text which examines human accomplishment in the fields of architecture, music, painting, sculpting and writing. Application, analysis and synthesis are encouraged in oral and written responses. In addition, the course offers the opportunity for the Honors student to complete and present an in-depth study/research project in an area of interest, monitored by the colloquium professor and a mentor who has uncommon knowledge or ability in the area of the student's interest. Also, the course provides enrichment activities of cultural significance. *Prerequisites:* HNR204 and RDG094. *Corequisite:* ENG102 .

HNR255 Leadership Development

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

A theoretical and applied study of leadership within the context of service. Approaches the study of the humanities as they relate to leadership theory, ethics and management. *Prerequisite:* RDG094.

HOSPITALITY MANAGEMENT (HRM)

HRM100 Introduction to Hospitality

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An introduction to the hospitality industry and career exploration of the hotel, restaurant, culinary arts, recreation, tourism and related industries. *Recommended:* RDG094.

HRM101 Facilities Management

3 Credits (3 Lectures)

Typically Offered: Spring

The principles of property/facilities management with focus on lodging and food service operations. Concepts of the physical plant and engineering systems are introduced. Environment and energy conservation issues are discussed. *Prerequisite:* RDG094.

HRM102 Management of Guest Services

3 Credits (3 Lectures)

Typically Offered: Fall

Front office procedures from the reservations process to check-out, including customer service, account settlement, revenue management, interoffice communication and human resource supervision. *Prerequisite:* RDG094.

HRM103 Managing Food Service Operations

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

The principles of commercial food service operations with a systemic concept to operations approach. *Prerequisite:* RDG094.

ICON LEGEND:

AGEC:


Intensive Writing:

Reading Required: RDG094:

SUN Course:




HRM145 Convention and Meeting Management

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring, and Summer

This course offers an introduction to organizing special convention and meeting events from concept through completion, including planning, coordination, marketing, financing and risk management. Additionally, this course includes an overview of the critical stages and functions involved in staging and managing special events, including conferences, entertainment, expositions, sporting or specialty events. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: RDG094.*

HRM252 Managing Hospitality Human Resources

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring, and Summer

This course provides an overview of U.S. employment and workplace law requirements, including strategies for hiring and training used in restaurant or lodging operations. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: RDG094.*

HUMANITIES (HMC)

HMC200 Comparative Cultures and Society

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

A focused study of a given country and its people, involving a survey of significant cultural and societal aspects of that country. The selected country will vary.

HMC201 International Travel Experience

3 Credits (3 Internships)

Typically Offered: Fall and Spring

This course provides CAC students who receive a CAC International Studies Scholarship to earn credit for international exchanges. During their stay at a foreign university, students tailor their foreign study to their particular major and design a study that focuses on a specific aspect of their major which supports firsthand observation. The independent study specific requirements will be negotiated between the student and the

instructor. *Prerequisite: ENG100. Only students selected to receive a CAC International Studies scholarship to study at a foreign college or university for one semester may enroll. The independent study will be directed by a CAC instructor and the course syllabus must meet the approval of the CAC International Studies Program Director.*

HMC250 Humanities in the Western World I

3 Credits (3 Lectures)  

Typically Offered: Fall and Spring

The culture, ideas and values of western civilization with an emphasis on the intellectual and artistic achievements in art, architecture, music, literature and/or philosophy up to 1400. *Prerequisites: RDG094 and ENG100. Recommended: Sophomore status*

HMC251 Humanities in the Western World II

3 Credits (3 Lectures)  

Typically Offered: Fall and Spring

The culture, ideas and values of western civilization with an emphasis on the intellectual and artistic achievements in art, architecture, music, literature and/or philosophy from 1400 to 1800. *Prerequisites: RDG094 and ENG100. Recommended: Sophomore status.*

HMC252 Humanities in the Western World III

3 Credits (3 Lectures)  

Typically Offered: Fall and Spring

The culture, ideas and values of western civilization with an emphasis on the intellectual and artistic achievements in art, architecture, music, literature and/or philosophy from 1800 to the present. *Prerequisites: RDG094 and ENG100. Recommended: Sophomore status.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



INTERDISCIPLINARY STUDIES (IDS)

IDS100 Service Learning I

3 Credits (2 Lectures, 1 Internship)

Typically Offered: Fall and Spring

Participation in service to the community that incorporates academic skills and knowledge to produce meaningful, real-world results. *May be taken two times for credit. Prerequisite: ENG101*

LITERATURE (LIT)

LIT101 Introduction to Literature

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction to fiction, poetry, and drama, including literary analysis of various genres, literary devices and production and reception of literature by various audiences. *Prerequisite: RDG094.*

LIT201 American Literature I

3 Credits (3 Lectures)

Typically Offered: Fall

Students will be introduced to and analyze the chief literary works produced in America from the colonial period through the Civil War. *Prerequisite: RDG094. Corequisite: ENG102* .

LIT202 American Literature II

3 Credits (3 Lectures)

Typically Offered: Spring

Survey of a diverse range of American literary works from the Civil War to modern times, emphasizing literary history, criticism and socio-cultural and historical contexts. *Prerequisite: ENG101* . *Corequisite: ENG102* .

LIT203 English Literature I

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Major English literary works from the Middle Ages to 1800. *Prerequisite: ENG101* . *Prerequisite or corequisite: ENG102* .

LIT204 English Literature II

3 Credits (3 Lectures)

Typically Offered: Spring

Major English literary works from the Romantic period to the Modern period. *Prerequisite: ENG101* . *Corequisite: ENG102* .

LIT206 World Literature

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Introduction to literary works from diverse global cultures, focusing on illuminating both the universality and diversity of human experience. *Prerequisites: RDG094 and ENG101* .

LIT232 African American Literature

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Exploration of major literary works written by African Americans from the 1700s through the present. *Prerequisite: ENG101* . *Prerequisite or corequisite: ENG102* .

LIT233 American Ethnic Literature

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Exploration of literary works written by a variety of American ethnic authors. *Prerequisite: ENG101* . *Prerequisite or corequisite: ENG102* .

LIT234 U.S. Latino/a Literature and Culture

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule.

United States Latino/a authored literature from the sixteenth century to the present day, including fiction, poetry, essays,

ICON LEGEND:

AGEC:


Intensive Writing:

Reading Required: RDG094:

SUN Course:




COURSE DESCRIPTIONS

drama and memoirs. *Prerequisites:* RDG094; ENG100 or test into ENG101 .

LIT254A Literature and Film

3 Credits (3 Lectures)  IW

Typically Offered: Spring

Narrative mediums of literature and film through the study of select literary works and their film adaptations. Examines film as both an interpretation of literature and as the unique product of artistic, historical and sociocultural forces. *Prerequisite:* ENG102  or instructor consent.

LIT254B Literature and Film

3 Credits (3 Lectures)



Typically Offered: Fall and Spring

Narrative mediums of literature and film through the study of select literary works and their film adaptations. Examines film as both an interpretation of literature and as the unique product of artistic, historical and sociocultural forces. To receive credit for this course, the topic must vary significantly from LIT254A. *Prerequisites:* LIT254A and instructor or Division Chair consent.

LIT255 The Horror Novel

3 Credits (3 Lectures)



Typically Offered: Fall

A survey of the horror novel as a narrative medium for historical, sociological and cultural commentary from the genre's early influences to the modern era. *Prerequisite:* ENG101 . *Corequisite:* ENG102 .

LIT256 Science Fiction Literature and Film

3 Credits (3 Lectures)  IW


Typically Offered: Spring

A survey of science fiction literature and film as a narrative medium for historical, sociological and cultural commentary from the genre's early influences to the modern era. *Prerequisite:* ENG101 . *Corequisite:* ENG102 .

LIT266 Cultural Narratives in Comics and Graphic Novels

3 Credits (3 Lectures)


Typically Offered: Spring

A survey of comics, comic books, and/or graphic novels as a narrative medium for historical, sociological and cultural commentary from the genre's early influences to the modern era. *Prerequisite:* ENG102  or instructor consent.


LIT267 Introduction to Shakespeare

3 Credits (3 Lectures)


Typically Offered: Fall

An introduction to Shakespeare's plays, sonnets and the Elizabethan period. *Prerequisite:* ENG102  or instructor consent.

LIT278 Native American Literatures

3 Credits (3 Lectures) 



Typically Offered: Consult CAC Class Schedule.

An introduction to literature written by and about Native peoples of the Americas, including myths, legends, the oral tradition, fiction, memoir, drama and poetry. *Prerequisites:* RDG094 and (ENG100 with grade of "C" or better or test into ENG101 .

LIT291 Children's Literature for Educators

3 Credits (3 Lectures)  IW

Typically Offered: Fall and Spring

A survey and analysis of classic and contemporary children's literature and an examination of criteria for selecting children's books in educational contexts. *Prerequisite:* ENG101 . *Corequisite:* ENG102 .

MANUFACTURING ENGINEERING TECHNOLOGY (MET)

MET110 Introduction to Quality Assurance

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

An introduction to quality assurance, quality improvement and quality improvement tools including: Statistical Process Control (SPC) software and hardware applications. Related

ICON LEGEND:

AGEC: 

Intensive Writing: IW

Reading Required: RDG094: 

SUN Course: 



topics include: International Standards Organization Quality Standards (ISO 9000) and Theory of Constraints (TOC). Writing technical papers with an oral presentation is included.

MET125 Principles of Fabrication

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Principles and applications of common metal removal processes and sheet metal fabrication including drilling, turning, milling, shearing, and bending. *Recommended: Experience using hand tools.*

MET127 Manufacturing Process and Materials

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Production processes, materials, techniques, systems and applications used in industry. Resources and systems of production management from manual, mechanized, automated and integrated stages are presented.

MET132 Fluid Power Hydraulics - Pneumatics

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Fluid theory, production, consumption, control and application of the transmission of energy through hydraulic and pneumatic components, including valves, actuators, pumps and circuits. *Prerequisite: MAT092.*

MET150 VB.NET for Engineering

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Object Oriented Programming techniques in Visual Basic (VB.NET) used to control external peripherals such as motors, lights and electromechanical equipment through the Universal Serial Bus (USB) port, including flowcharting, pseudocoding, coding, testing and documenting programs in accordance with specifications. *Recommended: Computer programming experience.*

MET221 Electro-Mechanical Technology

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Mechanical concepts and basic electro-mechanical systems, including electronic circuits incorporating electro-mechanical and electro-optical transducers and auxiliary devices. *Prerequisites: ELC122 and MAT092.*

MET226 Electro-Mechanical Systems

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Diagnostics, troubleshooting, design, maintenance, schematic reading and preventive maintenance of electric, hydraulic, pneumatic and vacuum systems of industrial machines. *Prerequisites: ELC220 and MET221.*

MET230 Semiconductor I Seminar

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Semi-conductor Manufacturing Technician Fabrication Cleanroom employment seminar. *Corequisite: CHM130 or higher.*

MET232 Solids Modeling – SolidWorks

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

CAD modeling, solid part generation, assembly of parts and working drawing creation. Applications of CAD/CAM in Computer Integrated Manufacturing.

MET240 DeviceNet

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

This course focuses on DeviceNet concepts, communication protocol, programming, and sensor configurations to meet industry standards in automation. *Prerequisite: ELC228. Recommended: Students should have an interest in various types of programmable logic controllers and protocols.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

MET245 Variable Frequency Drive

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Concepts and applications of both stand-alone and PLC control Variable Frequency Drives, which includes communication, interfacing and troubleshooting techniques. *Prerequisite:* ELC228. *Recommended:* Students should have a basic understanding of motors.

MET250 Factory Talk

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Factory concepts and programming used in creating Human Machine Interfaces (HMI) in a variety of industry applications. An HMI is a graphical tool which controls automated devices. *Prerequisite:* ELC228. *Recommended:* Interest in creating graphical controllers.

MET261 LabVIEW I Programming

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

LabVIEW I focuses on using LabVIEW programming concepts, techniques, features, VIs and functions to create test and measurement analysis and report generation applications.

MET262 LabVIEW 2 Programming

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

LabVIEW 2 focuses on programming concepts, techniques, features, VIs and functions used to create tests and measurements, data acquisition, instrument control, data logging, measurement analysis and report generation applications. *Prerequisite:* MET261.

MET263 LabVIEW 3 Programming

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Develop professional user interfaces, applications and document VIs effectively using LabVIEW software. Use the four fundamental areas of LabView software development, specifically design, implement, test and deploy. *Prerequisite:* MET262.

MET264 LabVIEW FPGA Applications

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Learn LabVIEW field-programmable gate array (FPGA) applications to extend LabVIEW to other user interfaces. Emphasis on design and compiling processes. *Prerequisite:* MET263.

MET265 LabVIEW Overview

4 Credits (2 Lectures, 6 Labs)



Typically Offered: Fall, Spring and Summer

The LabVIEW Overview prepares students for the Certified LabVIEW Associate Developer (CLAD) Certification Exam by reviewing key skills, knowledge and abilities embedded in the LabVIEW course series. *Prerequisite:* MET264.

MET290 Material, Safety and Equipment Overview for Nanotechnology

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An overview of the materials, safety and equipment issues encountered in the practice of "top down" and "bottom up" nanofabrication. The course focuses on safety, environmental and health issues related to equipment operation and materials handling as well as cleanroom protocol. *Prerequisites:* CHM130  and MAT151 .

MET291 Basic Nanotechnology Processes

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

A hands-on introduction to the processing involved in "top down," "bottom up" and hybrid nanofabrication. The course details a step-by-step description of the equipment, facilities processes and process flow needed to fabricate devices and structures. *Prerequisite:* MET290.

MET292 Materials in Nanotechnology

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An in-depth, hands-on exploration of nanofabrication materials including chemical bonding, crystal structure and identification and prevention of defects. The relationship between material structure, properties and processing is emphasized. *Prerequisite:* MET291.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



MET293 Patterning for Nanotechnology

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Hands-on treatment of all aspects of advanced pattern transfer and pattern transfer equipment, including probe techniques, stamping and embossing, electron beam and optical contact and stepper systems. *Prerequisite: MET292.*

MET294 Materials Modification in Nanotechnology

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Examine the contribution of nanomaterials to a wide range of industries. Specific material properties and processes will be examined for their contribution to the field of composites, biotechnology and energy applications. *Prerequisite: MET293.*

MET295 Characterization, Testing of Nanotechnology Structures and Materials

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Examine a variety of techniques and measurements essential for testing and controlling material fabrication and final device performance. Characterization includes optical, physical and electrical approaches. *Prerequisite: MET294.*

MASS COMMUNICATIONS (MSC)

MSC101 Media and Society

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

An introduction to mass communications and the importance media play in shaping the societal and cultural experiences of humans. Demonstrates how communication changes with technology, from the printing press to electronic books. *Prerequisite: RDG094.*

MSC102 Writing for the Print Media I

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Beginning reporting with practice in organizing and writing basic news stories, culminating in producing stories for the college newspaper. *Prerequisite: RDG094.*

MSC107 Basic Script Writing

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Script theory and application in preparing a final, full-length script, emphasizing techniques for visual and oral media production. *Prerequisites: ENG102 and MSC101.*

MSC109 TV/Video Production

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Review of basic video and television broadcasting equipment. *Prerequisite: Enrollment in a CAC course with an MSC prefix or instructor consent.*

MSC110 Publications

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Students will produce the school newspaper, The Cactus. Participate in staff meetings to develop story plans for print publication; learn to use Associated Press guidelines, including the laws about libel and slander; contribute to at least two departments of news publication; write, edit and revise stories as well as take photographs and assist with publication design. *May be taken four times for credit. Prerequisite: RDG094.*

MSC120 Graphic Design and Adobe InDesign

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Focuses on aesthetics and composition for graphic design. Students will use Adobe InDesign software to create original designs for a variety of real-world projects. The course will focus on the basic principles of contrast, alignment, repetition and proximity while exploring the important role typography plays in successful design solutions. Students will finish the semester with a complete electronic portfolio.

ICON LEGEND:

AGEC:


Intensive Writing:

Reading Required: RDG094:

SUN Course:



MSC122 Introduction to Web Design

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall and Spring

Create professional quality web designs with Adobe Dreamweaver or comparable software and other tools.

Prerequisite: RDG094.


MSC123 Designing with Type

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Explore the art, craft, technical procedures and concepts involved in producing successful typographic design, which is a fundamental component of visual communications. Topics include typographer history, 20th century typographers, changes in printing technologies, anatomy, classification, measurement systems, legibility and readability, typographic meaning, grid systems, typographic hierarchy, type as a design element, spacing and alignment, type specification and proofreading and typography as it functions in various media. Students use a variety of software applications to develop letterform design and type organization skills. *Prerequisite:* MSC125 or Instructor consent.

MSC125 Introduction to Illustrator

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall and Spring

An introduction to the use of Adobe Illustrator design tool and placing of illustration in a web or print design. *Prerequisite:* RDG094.


MSC130 Digital Photography and Photoshop

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Multiple elements of digital cameras and the software program Adobe Photoshop. Learn new computer skills, how to use a digital camera, the aesthetic principles of photo composition, and the fundamentals of manipulating photos by computer.

MSC150 History of Still Photography

3 Credits (3 Lectures) 

Typically Offered: Spring

A survey of the prominent figures and movements in photography as well as advancements in photographic

technology and processes from 1827 to present. *Prerequisites:* ENG100 and RDG094.

MSC180 Basic Photojournalism

3 Credits (3 Lectures)


Typically Offered: Fall and Spring

An introduction to visual storytelling, emphasizing composition, lighting, photo editing skills and legal and ethical issues. Fully adjustable Digital Single Lens Reflex (DSLR) camera required. *Prerequisite:* MSC130.

MSC202 Writing for the Print Media II

3 Credits (2 Lectures, 3 Labs)


Typically Offered: Fall and Spring

Advanced reporting of feature stories, interviews, reviews, columns and editorials. *Prerequisite:* MSC102 .

MSC205 Portfolio Preparation

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall

Use digital photography and graphic design to prepare a professional portfolio of original artwork for use in job interviews and applications to upper division university coursework. Topics include using professional tools and techniques to develop an artistic theme, incorporating the rules of design and composition, developing and implementing selection criteria, identifying and implementing refinements to selected digital images, original artwork and design work. *Satisfactory/Unsatisfactory grading option is available. Prerequisite:* ART101 .

MSC220 Advanced Graphic Design

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Advanced Graphic Design expands experience with computer software, presents more complex design guidelines and type face rules and offers complex design assignments. Students will pursue more individualized advanced projects. *Prerequisite:* MSC120.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



MSC230 Advanced Digital Photography and Adobe Photoshop

3 Credits (3 Lectures)


Typically Offered: Fall, Spring and Summer

Advanced Digital Photography expands experience with computer software, presents more complex photographic instruction and offers complex assignments. Students will pursue individualized projects. *Prerequisite:* MSC130.

MSC240 Mass Media and the Public Mind

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Examine the influence of mass media images on the public mind, including analysis and interpretation of content from technical, ethical, historical, psychological and cultural perspectives. Analyze news, advertising and entertainment media content for messages on values, choices and perceptions presented through photography, cinema, TV and the Internet. *Prerequisites:* ENG101  and MSC101.

MATHEMATICS (MAT)

MAT082 Basic Arithmetic

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Development of arithmetic skills as a foundation for other mathematics courses, stressing number awareness and arithmetic processes.

MAT086 Pre-Algebra

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

A review of the fundamental concepts of algebra. This course provides a strong base for success in future algebra courses. *Prerequisite:* MAT082. *Recommended:* RDG091.

MAT090 Math Help 911

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

Instructional assistance to strengthen students' math concepts and study skills for their 082, 086 or 092 math course(s). *May*

be taken six (6) times for credit. Note: Students typically take two 8-week sessions per semester.

MAT092 Introductory Algebra

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

A review of the basic skills of arithmetic and algebra, with the emphasis on developing sound algebraic and problem solving skills. *Prerequisite:* MAT086. *Recommended:* RDG091.

MAT099 Math Help 411

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

This course offers customized practice of math concepts and study skills to support current and future math courses; complements MAT121, 141, and/or 151. Skills that are reviewed in this course include, but are not limited to, general note taking, math skills that include processes for solving multi-step problems, solving equations, decoding, modeling and solving word problems and proficiency with mathematical logic. *This course may be taken more than five times for credit. For elective credit only. Prerequisite:* MAT092.

MAT111 Math for Electricians

2 Credits (1.5 Lectures, 2 Labs)

Typically Offered: Fall, Spring and Summer

Introduction to math principles for electricians including basic arithmetic, algebra and fundamental trigonometry with an emphasis on real world scenarios and problem solving skills. Apply key mathematical concepts while developing an awareness of basic electrical terms and practices.

Prerequisites: ELC126; ELC202; *Alternative Energy/Electrical cohort member.*

MAT118 Essential Mathematics

4 Credits (4 Lectures)

Typically Offered: Fall, Spring and Summer

A review of the basic skills of mathematics with emphasis on developing sound mathematical skills in arithmetic, algebra, geometry and problem-solving. *Prerequisites:* MAT092 and RDG091.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 

**MAT121 Intermediate Algebra, Standard**

4 Credits (4 Lectures)

Typically Offered: Fall, Spring and Summer

Operations/properties of real numbers, exponents and complex numbers; factoring, solution/application of linear and quadratic equations; operations on rational and radical expressions.

Prerequisite: MAT092. *Recommended:* RDG091.

MAT122 Intermediate Algebra, Accelerated

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Operations/properties of real numbers, exponents and complex numbers; factoring, solution/application of linear and quadratic equations; operations on rational and radical expressions.

Prerequisite: MAT092. *Recommended:* RDG091.

MAT141 College Mathematics, Standard

4 Credits (4 Lectures)

Typically Offered: Fall, Spring and Summer

General mathematics including personal finance, set theory, linear programming, exponential growth and decay, probability and statistics. *Prerequisites:* RDG094; MAT118 or higher.

MAT151 College Algebra, Standard

4 Credits (4 Lectures) MAT 1151

Typically Offered: Fall, Spring and Summer

Accelerated algebra that includes the topics: equations, functions, transformations, linear and quadratic functions and inequalities, systems of linear equations and inequalities, exponential and logarithmic functions, polynomials, rational functions, sequences and series. *Prerequisites:* MAT121 and RDG094.

MAT162 Applied Statistics

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Graphical and quantitative description of data; binomial, normal and t distributions; one and two sample hypothesis tests and confidence intervals; simple linear regression and correlation. *Prerequisites:* RDG094; MAT121 or higher.

MAT182 Trigonometry with Algebra Review

4 Credits (4 Lectures)

Typically Offered: Fall, Spring and Summer

A comprehensive coverage of trigonometry and selected topics from college algebra, including measurements of angles, trigonometric functions and inverse trigonometric functions, trigonometric equations and identities, graphing of trigonometric functions, solutions of triangles, applications, complex numbers, polar coordinates, DeMoivre's theorem, logarithms, exponential functions, partial fraction decomposition, conic sections, sequences and series.

Prerequisites: RDG094 and MAT151 .

MAT187 Pre-Calculus

5 Credits (5 Lectures) MAT1187

Typically Offered: Fall and Spring

Pre-Calculus topics include: angles and their measures, properties and graphs of trigonometric functions, trigonometric equations and identities, solutions of triangles, applications, polar coordinates, quadratic equations, logarithmic and exponential functions, systems of equations, partial fractions, conic sections, sequences and series. *Prerequisites:* RDG094, MAT121 with a grade of "B" or higher.

MAT201 Math for Elementary Teachers I- Number, Operations and Numerical Systems

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An explanation of numbers, number systems, operations on numbers, and problem solving. The course is designed to meet the requirements for prospective elementary education teachers. *Prerequisite:* MAT141 or MAT151 .

MAT202 Math for Elementary Teachers II- Geometry, Measurement and Visualization

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Spatial visualization, measurement, geometry, proof, probability and data analysis using appropriate technologies and various strategies. Use physical models, technology and pattern-finding strategies to identify properties of and develop formulas for measuring two- and three-dimensional shapes. This course is designed to meet the requirements for

ICON LEGEND:**AGEC:** **Intensive Writing:** **Reading Required:** RDG094: **SUN Course:**



prospective elementary education teachers. *Prerequisite:* MAT141 or MAT151

MAT211 Brief Calculus, Standard

4 Credits (4 Lectures)

Typically Offered: Fall and Spring

Foundations of differential and integral calculus, including applications to business and economics. *Not open to students with credit in MAT221 or MAT231 .* *Prerequisite:* MAT151 .

MAT212 Brief Calculus, Accelerated

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Foundations of differential and integral calculus including applications to business and economics. *Not open to students with credit in MAT221 or MAT231 .* *Prerequisite:* MAT151 .

MAT215 Math for Business Analysis

4 Credits (4 Lectures)

Typically Offered: Fall and Spring

A study of mathematics focused on solving business-related problems by applying the concepts of linear programming, optimization, statistics, probability and multivariable calculus. *Prerequisite:* MAT211 or MAT212.

MAT221 Analytical Geometry and Calculus I

4 Credits (4 Lectures) MAT 2220

Typically Offered: Fall, Spring and Summer

An introduction to analytic geometry, limits, continuity, differential and integral calculus of single variable functions and related applications. *Prerequisites:* MAT187 or (MAT151 and MAT182) or appropriate test score.

MAT231 Analytical Geometry and Calculus II

4 Credits (4 Lectures) MAT 2230

Typically Offered: Fall and Spring

Techniques of integration for both proper and improper integrals with applications of physics and social science, elements of analytic geometry and the analysis sequences and series. *Prerequisites:* MAT221 .

MAT241 Analytical Geometry and Calculus III

4 Credits (4 Lectures) MAT 2241

Typically Offered: Fall, Spring and Summer

Multivariable calculus including vectors, vector-valued functions, partial differentiation, multiple integration and an introduction to vector fields. *Prerequisite:* MAT231 .

MAT262 Ordinary Differential Equations

3 Credits (3 Lectures) MAT 2262

Typically Offered: Fall, Spring and Summer

An introduction to first and higher order ordinary differential equations with applications. *Prerequisite:* MAT231 .

MAT275 Modern Differential Equations

4 Credits (4 Lectures)

Typically Offered: Spring

Designed for engineering students this introduction to first and higher order ordinary differential equations with applications focuses on problem solving using MATLAB. *Students may not receive credit for both MAT262 and MAT275. Prerequisite:* MAT231 .

MUSIC HISTORY AND LITERATURE (MHL)

MHL100 Music Appreciation

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Music history and literature with emphasis on listening to and evaluating all types of music, noting the influence of the major composers and the media through which music is produced. Attendance at live musical events in a variety of venues will be encouraged. *Prerequisite:* RDG094.

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



MHL207 Survey of Jazz/Popular Music

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Survey of popular music, noting unique musical styles of the associated composers and performers. Impact of popular music on social and historic events of the past century. *Prerequisite:* RDG094.

MHL209 Visual Art, Music and Learning

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An introduction to the effects of the arts on learning, student learning styles, visual culture and visual arts, and music theory and culture. *Prerequisite:* RDG094. *Cross Listed:* ART209.

MUSIC PERFORMANCE (MUP)

MUP104 Concert Choir

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Concert Choir, a major performance ensemble, is dedicated to the performance of varied choral literature from all historical periods, styles and ethnic origins which perform for community concerts, graduations and at least one major CAC concert each semester. *May be taken more than four times for credit.* *Prerequisite:* Ability to match pitch.

MUP105 Voice Class

2 Credits (2 Recitations)

Typically Offered: Fall and Spring

An introduction to the basics of proper vocal technique, including breath management, tone production, tone quality, resonance, vocal physiology, vocal registration, vocal health and management, and how to practice. These principles will be practiced by singing in class, both in group and solo situations. *May be taken two times for credit.*

MUP107 Band

1 Credit (3 Labs)

Typically Offered: Fall and Spring

A performing organization open to Central Arizona College students and Pinal County residents. The ensemble performs a wide range of standard concert band literature as well as lighter works. Experience is gained by performing concerts on campus. *May be taken four times for credit.* *Prerequisite:* Instructor consent.

MUP109B Private Instruction: Brass

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Private instruction on a brass instrument that concentrates on proper tone production, articulation, technique and performance of a variety of repertoire. *May be taken four times for credit.* *Prerequisite:* Instructor consent. *Recommended:* MUP107 and/or MUP112.

MUP109D Private Instruction: Percussion

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Private instruction on percussion instruments that concentrates on appropriate mallet selection, tone production, technique and performance of a varied repertoire. *May be taken four times for credit.* *Prerequisite:* Instructor consent.

MUP109G Private Instruction: Guitar/Bass Guitar

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Private instruction on guitar/bass guitar that concentrates on learning to play and read music, chords and a varied repertoire. Student must supply instrument and perform in a public recital. *May be taken four times for credit.*

MUP109P Private Instruction: Piano Keyboard

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Performance of piano keyboard repertoire, technical skills, and keyboard theory including scales, progressions, transposition, improvisation and harmonization commensurate with student's level of achievement. *May be taken four times for credit.*

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



MUP109V Private Instruction: Voice

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

An opportunity for creative self-expression and for the creativity of other human efforts as reflected through art songs and other music studied. Private instruction on consonants and vowels, correct posture, diaphragmatic breathing and music theory skills to produce proper vocal production in the performance of a variety of styles and vocal repertoire. *May be taken more than four times for credit. Prerequisite: MUP105.*

MUP109W Private Instruction: Woodwind

1 Credit (1 Recitation)

Typically Offered: Fall and Spring

Private instruction on a woodwind instrument that concentrates on proper tone production, articulation, technique and performance of a varied repertoire. *May be taken four times for credit. Prerequisite: Instructor consent. Recommended: MUP107 and/or MUP112.*

MUP110 Piano Class

2 Credits (.5 Lecture, 2 Labs, 1 Recitation)

Typically Offered: Fall and Spring

Class instruction of piano keyboard repertoire, technical skills and keyboard theory commensurate with student's level of achievement. *May be taken four times for credit.*

MUP112 Jazz Ensemble

1 Credit (3 Labs)

Typically Offered: Fall and Spring

A performing organization open to Central Arizona College students. The jazz styles of swing, rock and Latin are studied and performed. An emphasis is placed on learning and developing improvisational skills. Experience is gained by performing for the college, schools and community. *May be taken four times for credit. Prerequisite: Instructor consent.*

MUP116 Introduction to Handbells

1 Credit (1 Lecture)

Typically Offered: Fall and Spring

An introduction to concepts and technical skills required to ring handbells. Topics include basics of reading music, handbell history, ringing stop techniques and rhythms.

MUP117 Desert Dissonance (Jazz Choir)

2 Credits (6 Labs)

Typically Offered: Fall and Spring

Jazz Choir, a major performance ensemble, is an auditioned group of musicians who perform vocal jazz literature for CAC and community organizations. The concerts are varied and represent a broad perspective of the American vocal jazz genre. Singers represent the college as performers in public functions throughout Arizona and at vocal jazz festivals throughout the United States, in addition to an annual spring recruitment tour. *May be taken four times for credit.*


MUP118 Handbell Choir

1 Credit (3 Labs)

Typically Offered: Fall and Spring

An ensemble designed for the intermediate to advanced musician seeking to learn new instruments and to study great music specifically composed and arranged for handbells. Repertoire performed at public functions as well as college concerts. *May be taken four times for credit. Prerequisite: Instructor consent.*

MUP119 Theater Workshop: Drama

2 Credits (6 Labs) 

Typically Offered: Fall, Spring and Summer

Participation as an actor, understudy or assistant to the director in the semester's production. Actors are selected by audition. Participation as an assistant to the director is based on availability of a position. *May be taken four times for credit. Prerequisite: RDG094. Cross Listed: THE119.*

MUSIC THEORY AND COMPOSITION (MTC)

MTC100 Music Fundamentals

3 Credits (3 Lectures)

Typically Offered: Fall

Music fundamentals, including melody, harmony and rhythm, and development of basic music skills, including accurate performance, development of music literacy and acquisition of basic musical understanding, basic theory and structure of music. *Corequisite: MTC101.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



MTC101 Aural Fundamentals

.5 Credit (2 Labs)

Typically Offered: Fall

An introduction to the fundamentals of tonal aural problems and rhythms taught through sight singing and ear training.

Corequisite: MTC100.

MTC102 Theory of Music I

3 Credits (3 Lectures)

Typically Offered: Spring

Concepts of music theory taught through ear training and written work to include structure of tonality through Roman numeral analysis. *Prerequisite: MTC100. Corequisite: MTC103. Recommended: MUP109P or MUP110.*

MTC103 Aural Skills I

.5 Credit (2 Labs)

Typically Offered: Spring

A study of tonal aural problems and rhythms taught through sight singing and ear training. This is a continuation of Aural Fundamentals. *Prerequisite: MTC101. Corequisite: MTC102.*

MTC204 Theory of Music II

3 Credits (3 Lectures)

Typically Offered: Spring

Concepts of music theory taught through ear training and written work to include non-dominant seven chords and to conclude with ninth, eleventh and thirteenth chords. *Prerequisite: MTC102. Corequisite: MTC205. Recommended: MUP109P or MUP110.*

MTC205 Aural Skills II

.5 Credit (2 Labs)

Typically Offered: Fall and Spring




An advanced study of tonal and aural problems and rhythms taught through sightsinging and ear training. This is a continuation of Aural Skills I. *Prerequisite: MTC103. Corequisite: MTC204.*

NURSING (NUR)

NUR121 Introduction to Nursing Transitions

8 Credits (4 Lectures, 12 Labs)



Typically Offered: Fall and Spring

Within the framework of transitions theory, the focus is on individuals and families in defined practice settings such as Long Term Care and Medical Surgical Acute Care areas. Included is the situational transition of the individual to the nursing student role, and the patient's admission to and movement within the healthcare system as it relates to health-illness and developmental transitions. Provides the opportunity for the practice of nursing in real and simulated structured situations. *Prerequisites: Nursing cohort student; BIO201 ; BIO202 ; eligible for ENG101  and MAT141; C.N.A. or L.P.N. licensure from the Arizona State Board of Nursing. Corequisite: NUR126.*

NUR122 Nursing in Health Illness Transitions

8 Credits (4 Lectures, 12 Labs)




Typically Offered: Fall and Spring

Focus on individuals and families with commonly occurring health concerns as they transition across the lifespan. Identification and application of nursing therapeutics in defined practice settings to assist culturally and spiritually diverse patients making health-illness and situational transitions. *Prerequisites: ENG101 , NUR121, NUR126, PSY101 .*

NUR126 Principles and Application of Drug Dosage Calculations

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Introduction to medication administration concepts and intensive study and practice in calculating dosages and concentrations of solutions used in nursing. *Prerequisites: Nursing cohort student; BIO201 ; BIO202 ; eligible for ENG101  and MAT141; C.N.A. or L.P.N. licensure from the Arizona State Board of Nursing. Corequisite: NUR121.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



NUR145 Pharmacology

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Introduction and foundational study of drugs and therapeutic substances applied to nursing. Includes classifications, prototypes, therapeutic actions, side effects, interactions and ethical-legal aspects of drug therapy. Medication administration concepts and dosage calculations are included. *Prerequisites:* NUR121, NUR126.

NUR150 Nursing Professional Transitions

3 Credits (2 Lectures, 3 Labs)


Typically Offered: Fall and Spring

This optional course provides leadership, professional development and specialized course content to prepare first year nursing students to transition into the LPN role. Upon the successful completion of this course, the first year nursing student is eligible to take the NCLEX-PN exam. *Prerequisites:* Admitted Nursing Cohort student; NUR121, NUR122, NUR126 and NUR145.

NUR221 Nursing in Developmental Transitions

8 Credits (4 Lectures, 12 Labs)


Typically Offered: Fall and Spring

Nursing care of the patient across developmental stages in the lifespan. Transitions theory is used as the framework to examine healthy and unhealthy transitions and nursing therapeutics, which promote healthy developmental transitions. *Prerequisites:* ENG102 , NUR122 and NUR145.

NUR222 Nursing in Organizational Transitions

8 Credits (4 Lectures, 12 Labs)

Typically Offered: Fall and Spring

Nursing care at this level focuses on the patient with complex health problems and their family/caregiver(s) and students perform higher-level nursing skills. Application of evidence-based clinical practice and transitions theory within organizational settings. *Prerequisites:* BIO205 , NUR221. *Corequisites:* MAT141 or higher, Humanities course (3 credits), and PAC or DAN course (1 credit).

NUTRITION/DIETETICS (NTR)


NTR100 Contemporary Issues

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

The identification and application of current nutrition information and its impact on health and wellness. *May be taken four times for credit.*

NTR104 Nutrition

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

An introductory study of the optimal diet for health and fitness, principles of basic nutrition and nutritional needs throughout the life cycle. *Prerequisite:* RDG094.

NTR104L Personal Wellness Lab

1 Credit (3 Labs)

Typically Offered: Fall and Spring

A scientific investigation into one's own personal health and wellness status

NTR105 ServSafe Certification

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Applied course in food safety and sanitation to identify and analyze the factors which cause foodborne illnesses through the study of proper purchasing, preparation, handling and storage.

NTR123 Nutrition throughout the Life Cycle

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Examines the role of nutrition during every stage of life; common problems and concerns and nutritional adequacy with an emphasis on birth through age eighteen. *Prerequisite:* NTR200 or NTR104.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 




NTR127 Breastfeeding and Human Lactation

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

An introduction to breastfeeding principles for the healthcare professional including the decision to breastfeed, basic anatomy and physiology of milk production and consumption, normal breastfeeding, feeding behaviors, growth patterns, nutritional needs and breastfeeding concerns.

NTR129 Introduction to Healthcare for Nutrition Professionals

3 Credits (3 Lectures) 

Typically Offered: Fall

Fundamentals common to all healthcare occupations with an emphasis on nutrition. *Prerequisite:* RDG094. *Corequisite:* NTR163.

NTR130 Diabetes Overview

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

An introduction to diabetes, risk factors for developing diabetes, detection methods and management techniques.

NTR131 Introduction to Diabetes

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An introduction to diabetes, types of diabetes tools for management, complications, recommended therapies and lifestyle modifications.

NTR134 Healthy Weight for Kids

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Overviews the challenges and strategies that can help children achieve and maintain a healthy weight as a means to reduce the incidence of chronic health conditions, including diabetes, heart disease and others.

NTR135 Healthy Weight for Adults

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

An overview of the behavior management and treatment strategies that can help adults achieve and maintain a healthy weight as a means to reduce the incidence of chronic health conditions, including diabetes, heart disease and others.

NTR136 Management of Gestational Diabetes

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

An overview of gestational diabetes; management techniques, potential complications, nutritional management and strategies for monitoring.

NTR137 Carbohydrate Counting

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

A-Z guide to carbohydrate counting for people with diabetes. Addresses the basic concepts as well as more advanced issues related to tight blood glucose control.


NTR141 Nutrition and Wellness

4 Credits (3 Lectures, 3 Labs)  

Typically Offered: Fall, Spring and Summer

Concepts, procedures and techniques to achieve the optimal diet for health and fitness, principles of basic nutrition, nutritional needs throughout the life cycle and a scientific investigation into one's own personal health and wellness status. *Prerequisite:* RDG094.

NTR142 Applied Food Science

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

Applied scientific principles of food preparation and production. Students must purchase ingredients for assignments. *Prerequisite:* RDG094.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



NTR150 Overview of Nutrition Professions

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Overview of the career opportunities in the fields of nutrition, dietetics, foodservice management, wellness and nutrition communication.

NTR156 Foundations of Dietary Manager Internship

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Identify rotation facilities and Registered Dietitian preceptor to successfully complete a dietary manager's internship. The course emphasizes the legal and ethical aspects specific to internships for nutrition professionals. *Prerequisites: NTR104 and NTR223.*

NTR157 Foundations of Dietetic Technician Internship

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Identify rotation facilities and Registered Dietitian preceptor required to successfully complete a dietetic technician internship. The course emphasizes the legal and ethical aspects specific to dietetic technicians. Satisfactory/Unsatisfactory grading option is available. *Students must receive a grade of "A" to proceed to NTR296. Prerequisites: Complete all Dietetic Technician A.A.S. degree general education requirements and instructor consent.*

NTR163 Orientation to Dietetic Technician Program

2 Credits (2 Lectures)

Typically Offered: Fall and Spring

Comprehensive orientation for students who have been admitted into the Dietetic Technician Program. *Prerequisite: Acceptance into the Dietetic Technician Program. Corequisite: NTR129.*

NTR191 Nutrition Counseling Skill Development

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Comprehensive skill development of step-by-step nutrition counseling. *Prerequisites: NTR200 or NTR104.*

NTR196 Dietary Manager Internship

4 Credits (4 Internships – 150 Hours)

Typically Offered: Fall, Spring and Summer

Supervised application of food production, food service management and nutritional care principles in clinical and community environments. *Prerequisites: NTR156, NTR223, NTR240 and NTR255.*

NTR200 Human Nutrition

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

The scientific principles of human nutrition emphasize nutrient metabolism, the relationships between diet and disease, and the importance of nutrition in health promotion and disease prevention. *Prerequisite: RDG094.*

NTR201 Nutrition Literacy

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Develop the skills and knowledge to assess Nutrition Literacy; defined as the ability to access, explain and use health-related information and services to make sound, thoughtful health decisions and to tailor counseling and education materials to maximize client understanding. *Prerequisites: NTR200 or NTR104.*

NTR219 Community Nutrition

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Assessment of community nutrition needs through planning, analyzing and interpreting data. Develop nutrition education programs for diverse socio-economic conditions and age groups. *Prerequisites: NTR200 or NTR104. Recommended for students seeking employment in community or public health.*

NTR222 Nutrition Assessment and Medical Nutrition Therapy

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An in-depth study of the Nutrition Care Process (NCP) components including the steps of assessment, nutrition diagnosis, intervention, monitoring and evaluation (ADIME) for all life cycle stages. *Prerequisites: NTR123.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



NTR223 Food Service Management

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Current management theories related to institutional food service emphasizing quality improvement and evaluation of service, meal planning, recipe development, safe and sanitary food procurement and production methods, facility layout and design, staffing, marketing and financial management.

Prerequisite: RDG094.

NTR232A Food and Culture

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Customs and cultures as they relate to food as well as to knowledge, attitudes and behaviors in promoting wellness.

Prerequisite: RDG094.

NTR240 Clinical Nutrition

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

In-depth study of Medical Nutrition Therapy and the role of nutrition in the prevention and treatment of diseases.

Prerequisites: NTR104.

NTR247 Weight Management Theory

3 Credits (3 Lectures)

Typically Offered: Fall

Comprehensive analysis of physiological, psychological and environmental influences on body weight. Researching various weight management theories, discerning between behavioral and non-behavioral methods. Assessing appropriate weight management strategies. *Prerequisites:* NTR200 or NTR104.

NTR255 Nutrition Medical Terminology, Labs, & Food Drug Interaction

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

An overview of the medical terminology, lab values and food and drug interactions used by nutrition professionals.

Prerequisites: NTR200 or NTR104.

NTR272 Certified Breastfeeding Counselor

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Provides the necessary skills to educate and support the breastfeeding mother with greater details about breastfeeding issues and special challenges/situations.

NTR290 LIFESTEPS® Leader Training

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Provides hands-on skill development in the application of behavioral techniques and the delivery of behavioral feedback that can be used in a variety of nutrition education settings. Also, basic information on nutrition, physical activity and group facilitation and dynamics as they relate to obesity and weight management as well as a detailed overview of the LIFESTEPS® Weight Management Program.

NTR295 Dietetic Technician Professional Practice Internship

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Competencies required for the Dietetic Technician A.A.S. specifically in the areas of ethics, scope of practice, professional development, public policy legislation and communication. *Prerequisites:* All 22 credits of general education requirements for Dietetic Technician A.A.S. Degree completed and instructor consent.

NTR296 Dietetic Technician Internship

6 Credits (6 Internships – 450 Hours)

Typically Offered: Fall and Spring

The application of life cycle nutrition, assessment, disease prevention and medical nutrition therapy in clinical, community and food service management settings. *Prerequisites:* All Dietetic Technician A.A.S. Degree requirements completed with a grade of “C” or better. Program Director or instructor consent.



OFFICE AUTOMATION SYSTEMS (OAS)

OAS101 Keyboard – Alphabetic

1 Credit (3 Labs)

Typically Fall, Spring, Summer and Open Entry/Closed

Offered: Exit

Mastery of essential microcomputer keyboard skills. Emphasis on alphabetic material using the touch technique.

OAS103 Keyboard – Speed/Accuracy

1 Credit (3 Labs)

Typically Fall, Spring, Summer and Open Entry/Closed

Offered: Exit

Improve keyboard speed and accuracy. Emphasis on alphabetic, numeric and symbol material using the touch technique.

OAS104 Ten-Key Pad

1 Credit (3 Labs)

Typically Fall, Spring, Summer and Open Entry/Closed

Offered: Exit

Key numeric data using touch technique on the computer numeric ten-key pad.

OAS125 Proofreading and Editing

3 Credits (3 Lectures)

Typically Fall, Spring, Summer and Open Entry/Closed

Offered: Exit

Analyze and correct communication, forms, reports and other documents by applying proofreading methods and markings, checking for consistency of facts, correcting data and following standard practices. *Prerequisite:* ENG100.

PHILOSOPHY (PHI)

PHI101 Introduction to Philosophy

3 Credits (3 Lectures) PHI 1101

Typically Fall and Spring

Offered:

Representative problems and theories regarding the nature of reality and the acquisition of knowledge including examination and development of personal philosophical positions. *Prerequisite:* RDG094.

PHI103 Introduction to Logic

3 Credits (3 Lectures) PHI 1103

Typically Every other spring; consult CAC Class Schedule.
Offered:

Introduction to Logic includes techniques for reasoning deductively and inductively, avoiding fallacies and using language accurately. Application of formal and informal techniques to the development, analysis and evaluation of arguments. *Prerequisites:* MAT118 or higher, RDG094.

PHI105 Introduction to Ethics

3 Credits (3 Lectures) PHI 1105

Typically Fall
Offered:

Major philosophical theories of conduct with an emphasis on the application of normative ethical theory to contemporary topics. *Prerequisite:* RDG094. *Corequisite:* ENG102 .

PHI112 World Religions

3 Credits (3 Lectures)

Typically Fall, Spring and Summer
Offered:

A survey of the major world religions focusing on the founders, history, system of beliefs, concepts of God/gods, private and public worship and sacred scriptures. *Prerequisite:* RDG094.

PHYSICAL EDUCATION (PED)

PED100 History and Philosophical Foundations of Sport and Physical Education

3 Credits (3 Lectures)

Typically Fall and Spring
Offered:

The historical and philosophical foundations of sport and physical education, current and future directions of instruction, administration and research.

PED101 History of Intercollegiate Athletics

3 Credits (3 Lectures)

Typically Consult CAC Class Schedule
Offered:

Examination of the origins and development of intercollegiate athletics and the relationship with the academic institutions that

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:


SUN Course:



COURSE DESCRIPTIONS

house these programs. Emphasis on amateurism, academics, finance and commercialism from the 1920's to the present. *Prerequisite: RDG094.*

PED102 The Management of Sport

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

A comprehensive overview of sport management: fundamentals and history; structure, policy and the governance of sport; sport economics and finance; sport marketing; and professional relations in sport. *Corequisite: RDG094.*


PED103 Foundations of Exercise

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Fundamentals of basic biomechanics, motor learning/control/development, exercise physiology, exercise metabolism, physiology of training, nutrition and sports psychology.


PED104 Anatomical Kinesiology

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Muscles, bones, joints and nerves and how they produce movement. Applying kinesiology to improve and maintain the muscular strength, endurance, flexibility and overall health of individuals. *Corequisite: RDG094.*


PED105 Women and Sport in the U.S.

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

The history of women in sports from the early 1900s to present with an emphasis on Olympic, intercollegiate and professional competition and the role gender has played in determining access to participation and leadership roles. *Prerequisite: RDG094.*

PED108 Introduction to Athletic Training

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Basic concepts of the prevention and treatment of athletic injuries and the primary importance of appropriate rehabilitation. *Corequisite: RDG094.*

PED109A Athletic Training Practicum I

2 Credits (6 Labs)

Typically Offered: Fall and Spring

An introduction to practical work experience in the athletic training setting. This practicum requires 90 hours. *Prerequisite OR corequisite: PED108.*

PED109B Athletic Training Practicum II

2 Credits (6 Labs)

Typically Offered: Fall and Spring

Clinical application of practical work experience in the athletic training setting. *Prerequisite: PED109A.*

PED109C Athletic Training Practicum III

2 Credits (6 Labs)

Typically Offered: Fall and Spring

Clinical application of practical work experience in the athletic training setting. *Prerequisite: PED109B.*

PED109D Athletic Training Practicum IV

2 Credits (6 Labs)

Typically Offered: Fall and Spring

Clinical application of practical work experience in the athletic training setting. *Prerequisite: PED109C.*

PED112 Introduction to Strength Training

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

A comprehensive guide to the design and implementation of strength and conditioning programs.

PED114 Introduction to Coaching

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An introduction to philosophies of coaching youth, high school and collegiate athletics, emphasizing both competitive and recreational settings.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 

**PED115 Coaching Methods I**

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

An overview of coaching methods, emphasizing both competitive and recreational settings and practical applications of concepts. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: PED114.*

PED202A Team Sports Officiating – Baseball

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Fundamentals of baseball officiating techniques and mechanics. Techniques and mechanics are based on National Federation High School Rules. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PED202B Team Sports Officiating – Basketball

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Fundamentals of basketball officiating techniques and mechanics. Techniques and mechanics are based on National Federation High School Rules. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PED202C Team Sports Officiating – Football

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Fundamentals of football officiating techniques and mechanics. Techniques and mechanics are based on National Federation High School Rules. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PED202D Team Sports Officiating – Soccer

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Fundamentals of soccer officiating techniques and mechanics. Techniques and mechanics are based on National Federation High School Rules. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PED202E Team Sports Officiating – Softball

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Fundamentals of softball officiating techniques and mechanics. Techniques and mechanics are based on National Federation High School Rules. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PED202F Team Sports Officiating – Volleyball

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

Fundamentals of volleyball sport officiating techniques and mechanics. Techniques and mechanics are based on National Federation High School Rules. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PED209 Introduction to Rehabilitation Techniques

3 -Credits (3 Lectures)

Typically Offered: Fall and Spring

A comprehensive guide to the design, implementation and supervision of rehabilitation programs for the individual who is preparing for a career in treating sports-related injuries. *Prerequisite: PED104, PED108.*

PED215 Coaching Methods II

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall, Spring and Summer

In-depth examination of coaching, emphasizing methods and concepts in both competitive and recreational settings. *Satisfactory/Unsatisfactory grading option is available. Prerequisite: PED115.*

PHYSICAL EDUCATION ACTIVITY (PAC)**PAC100 Strength and Conditioning for Varsity Sports**

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Activity course focusing on the pre-season, in-season and off-season strength and conditioning programs for the varsity

ICON LEGEND:**AGEC:** **Intensive Writing:** *IW***Reading Required:** RDG094: *R***SUN Course:**



COURSE DESCRIPTIONS

athlete. Programs will vary by sport.
Satisfactory/Unsatisfactory grading option is available.
May be taken two times for credit. *Prerequisite: Varsity athlete.*

PAC101A Basic and Beginning Techniques of Golf

1 Credit (3 Labs)

Typically Offered: Fall and Spring

The basic elements of the game of golf, the rules of golf, golf course etiquette and basic golf play. *May be taken two times for credit.*

PAC101J Basic and Beginning Techniques of Weight Training

1 Credit (3 Labs)

Typically Offered: Fall and Spring

The basic lifts and explanation of muscle groups affected. *May be taken two times for credit.*

PAC101K Basic and Beginning Techniques of Yoga

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

A slow and relaxed form of stretching where breathing (pranayama) and positions (asanas) are performed. *May be taken two times for credit.*

PAC101L Basic and Beginning Techniques of Karate

1 Credit (3 Labs)

Typically Offered: Fall and Spring

The art of Chinese karate emphasizing defense techniques against basic kicks, punches and grab attacks. *May be taken two times for credit.*

PAC101M Basic and Beginning Techniques of Basketball

1 Credit (3 Labs)

Typically Offered: Spring

The basic skills of the game of basketball, the rules and techniques for basketball as well as general basketball play. *May be taken two times for credit.*

PAC101R Aerobic Weight Training I

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Basic circuit weight training in conjunction with an aerobic exercise such as running in place, rope jumping or using exercise bikes. *May be taken four times for credit.*

PAC101V Basic and Beginning Techniques of Volleyball

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Basic volleyball skills, including the rules and techniques for volleyball players in various positions as well as general volleyball play. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PAC102A Intermediate Golf

1 Credit (3 Labs)

Typically Offered: Fall and Spring

A concentrated approach to golf skills with emphasis on individual skill level. *May be taken two times for credit. Prerequisite: PAC101A or appropriate experience.*

PAC102J Intermediate Weight Training

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Weight training techniques for use throughout the life cycle. *May be taken two times for credit.*

PAC102K Intermediate Yoga and Fitness

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Learn intermediate yoga poses, breathing techniques and meditation exercises. *May be taken four times for credit.*

PAC102L Intermediate Karate

1 Credit (3 Labs)

Typically Offered: Fall and Spring

Intermediate martial art forms and techniques; the study of anatomy, physiology and physics as related to karate. *May be taken four times for credit. Prerequisite: PAC101L.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



PAC103 Special Activity (Adaptive)

1 Credit (3 Labs)

Typically Offered: Consult CAC Class Schedule.

A special physical education activity class for the student who is unable to participate in the regular physical education program. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PAC104 Police Officer Physical Training

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Consult CAC Class Schedule.

Advanced principles of aerobic exercise, strength development and flexibility, emphasizing methods for stress reduction, value of nutrition awareness and development of individual exercise programs.

PAC105 Physical Fitness: Core Emphasis

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Open Entry/Closed Exit

Activity course focused on a balanced development of physical fitness. This course utilizes fitballs, tubing and/or other non-weight equipment to strengthen the core, upper and lower body. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit.*

PAC106 Aerobics and Weight Training

2 Credits (6 Labs)

Typically Offered: Fall and Spring

Fundamental skills and principles of weight training and aerobics. *Satisfactory/Unsatisfactory grading option is available. May be taken more than four times for credit.*

PAC107 Zumba® Toning

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Zumba® Toning is a high-energy, aerobic, calorie-crunching workout for those who love Zumba® Fitness and want to tone and sculpt the body to the next level. With an invigorating blend of Latin and International music, this fitness-dance class targets strengthening the core while improving cardiovascular endurance. *Satisfactory/Unsatisfactory grading option is available. May be taken more than four times for credit. Recommended: Any pre-existing health condition needs to be*

acknowledged and signed off by a physician, thus clearing the student to perform a high-intensity exercise routine.

PAC108 Zumba®

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Zumba® is a calorie-crunching workout. With a high-energy blend of Latin and International music, this fitness-dance class strengthens the core while improving cardiovascular endurance. *Satisfactory/Unsatisfactory grading option is available. May be taken more than four times for credit.*

PAC109 Central Boot Camp

1 Credit (3 Labs)

Typically Offered: Fall

Total body workout through fitness inspired boot camp regimen, including upper and lower body workouts infused with abdominal conditioning and stretching techniques. Course utilizes outdoor areas of campus. *Satisfactory/Unsatisfactory grading option is available. May be taken more than four times for credit.*

PAC110 Aqua Zumba®

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Aqua Zumba® is a high-intensity, calorie-crunching workout performed in the water to a blend of Latin and International music. This fitness-dance class is designed to strengthen the body core while improving cardio vascular endurance. *Satisfactory/Unsatisfactory grading option is available. May be taken more than four times for credit. Recommended: Any pre-existing health condition needs to be acknowledged and signed off by a physician, thus clearing the student to perform a high-intensity exercise routine.*

PAC111 Water Aerobics

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Aquatic exercise emphasizing stretching techniques, endurance, flexibility, and toning for swimmers and non-swimmers. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



PAC112 Introduction to Scuba Diving

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Scuba knowledge and skills to safely gain experience in the diving environment and, ultimately, to dive independently. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit. Prerequisites: Age 15 (minors require signature of parent/guardian), Assumptions of Risk statement, meet medical fitness standards, demonstrate swimming competency.*

PAC113 Total Body Conditioning

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Total body workout through aerobic exercise. This course covers upper body conditioning and abdominal conditioning, stretching techniques, safety, diet and nutrition. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit.*

PAC114 Aerobic Martial Arts

1 Credit (3 Labs)

Typically Offered: Consult CAC Class Schedule.

Aerobic workout using martial arts techniques. This course covers upper and lower body conditioning, stretching techniques, safety and nutrition. *Satisfactory/Unsatisfactory grading option available. May be taken four times for credit.*

PAC115 Spinners

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Aerobic workout using stationary bicycles. This course covers core, upper and lower body conditioning, stretching techniques and safety. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit.*

PAC121 Theory and Practice of Basketball I

2 Credits (6 Labs)

Typically Offered: Fall

Fundamental techniques of team play and strategy in the sport of basketball. Includes mechanics of basketball, rules and total body conditioning. *Satisfactory/Unsatisfactory grading option - is available. May be taken two times for credit.*

PAC122 Theory and Practice of Baseball I

2 Credits (6 Labs)

Typically Offered: Fall

Fundamentals of baseball, including techniques of team play, rules, conditioning and mechanics of baseball. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PAC123 Theory & Practice of Track & Field I

2 Credits (6 Labs)

Typically Offered: Fall

Fundamentals and techniques of track and field events, including psychological aspects, training and styles used in track and field events. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PAC125 Theory and Practice of Softball I

2 Credits (6 Labs)

Typically Offered: Fall

Fundamentals of softball, including techniques of team play, rules, conditioning and mechanics of softball. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PAC126 Theory and Practice of Cross-Country I

2 Credits (6 Labs)

Typically Offered: Fall

Fundamentals of racing strategies, mechanics of cross country, rules, conditioning and cross training are emphasized. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PAC127 Theory and Practice of Volleyball I

2 Credits (6 Labs)

Typically Offered: Fall

Fundamentals of volleyball including techniques of team play, rules, theory, conditioning and mechanics of volleyball. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



PAC200 Advanced Competition/Fitness Swimming

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall and Spring

This class is designed to improve/master rhythmic breathing along with stroke coordination, speed- and flip-turns, distance swimming and endurance training, water entries, diving starts and/or other skills as desired by students to further enhance skills for competition or fitness swimming. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Prerequisite: Ability to swim freestyle (or other stroke).*

PAC201J Advanced Weight Training

2 Credits (6 Labs)

Typically Offered: Consult CAC Class Schedule

Development and implementation of individualized weight training programs based on the student's activities and/or interests. *May be taken two times for credit.*

PAC201N Aerobics

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

A variety of exercises that stimulate lung activity such as running, swimming, cycling and jogging. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit.*

PAC207 Lifeguard Training

1 Credit (3 Labs)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Preparation of non-surf lifeguards to meet American Red Cross Lifeguard Training Certification program requirements. A pre-course water proficiency exam is administered at the beginning of the course. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit. Prerequisites: Students must be fifteen (15) years of age by the first day of class and pass a water proficiency exam on first day of class.*

PAC209 Water Safety Instructor

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Training for Water Safety Instructor (WSI) candidates to teach American Red Cross (ARC) Water Safety Courses, the ARC

Infant and Preschool Aquatics Program and the ARC Learn to Swim Program. *Satisfactory/Unsatisfactory grading option is available. May be taken three times for credit. Prerequisites: Lifeguard Training, current Adult CPR & Standard First Aid Certificates; successfully complete pre-course written exam and water proficiency exam; student must be at least seventeen (17) years of age by the end of the course.*

PAC221 Theory and Practice of Basketball II

2 Credits (6 Labs)

Typically Offered: Spring

Advanced techniques of team play and strategy in the sport of basketball. Includes advanced mechanics of basketball and total body conditioning. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Prerequisite: PAC121 or instructor consent.*

PAC222 Theory and Practice of Baseball II

2 Credits (6 Labs)

Typically Offered: Spring

Advanced techniques of baseball including techniques of team play, rules, conditioning, and mechanics of baseball. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Prerequisite: PAC122 or instructor consent.*

PAC223 Theory and Practice of Track and Field II

2 Credits (6 Labs)

Typically Offered: Fall

Advanced techniques of track and field events including psychological aspects, training and styles used in track and field events. *May be taken two times for credit. Prerequisite: PAC123 or instructor consent.*

PAC225 Theory and Practice of Softball II

2 Credits (6 Labs)

Typically Offered: Fall

Advanced techniques of softball, including techniques of team play, rules, conditioning and mechanics of softball. *May be taken two times for credit. Prerequisite: PAC125 or instructor consent.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

PAC226 Theory and Practice of Cross Country II

2 Credits (6 Labs)

Typically Offered: Spring

Advanced techniques of racing strategies, mechanics of cross country, rules, conditioning and cross training for cross country racing. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit. Prerequisite: PAC126 or instructor consent.*

PAC227 Theory and Practice of Volleyball II

1 Credit (3 Labs)

Typically Offered: Spring

Advanced techniques of volleyball, including techniques of team play, rules, conditioning and mechanics of volleyball. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Prerequisite: PAC127 or instructor consent.*

PAC230 Arizona Seals Swimming Academy I

2 Credits (6 Labs)

Typically Offered: Fall and Spring

The Arizona Seals is a USA Swimming-sanctioned swim team and maintains membership with USA Swimming, the National Governing Body for swimming in the U.S. This course emphasizes the fundamentals of swimming focusing on comfort in the water. Structured practice sessions include stroke development, stroke proficiency, endurance training, resistance exercise and flexibility. Seminars on the importance of a healthy lifestyle will be incorporated. Modeled after the USA Swimming Age-Group Swim Program. Short-course program I. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Prerequisite: Student must meet minimum water proficiency eligibility criteria.*

PAC231 Arizona Seals Swimming Academy II

2 Credits (6 Labs)

Typically Offered: Fall and Spring

The Arizona Seals is a USA Swimming-sanctioned swim team and maintains membership with USA Swimming, the National Governing Body for swimming in the U.S. The course emphasizes the fundamentals of swimming focusing on comfort in the water. Structured practice sessions include stroke development & proficiency, endurance training, resistance exercise and flexibility. Seminars on the importance of a healthy lifestyle will be

incorporated. Modeled after the USA Swimming Age-Group Swim Program. Short-course program II.

Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Prerequisite: Student must meet minimum water proficiency eligibility criteria.

PAC232 Arizona Seals Swimming Academy III

2 Credits (6 Labs)

Typically Offered: Fall and Spring

The Arizona Seals is a USA Swimming-sanctioned swim team and maintains membership with USA Swimming, the National Governing Body for swimming in the U.S. This course emphasizes the fundamentals of swimming focusing on comfort in the water. Structured practice sessions include stroke development & proficiency, endurance training, resistance exercise and flexibility. Seminars on the importance of a healthy lifestyle will be incorporated. Modeled after the USA Swimming Age-Group Swim Program. Long-course program. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Prerequisite: Student must meet minimum water proficiency eligibility criteria.*

PHYSICAL EDUCATION HEALTH (PEH)


PEH101 Personal Health

3 Credits (3 Lectures)  

Typically Offered: Fall, Spring and Summer

The significance of physical, mental, emotional and social health to the individual and society, community health programs and national health indicators. Special emphasis on health problems of the individual. *Prerequisite: RDG094.*

PEH102 First Aid/CPR

2 Credits (2 Lectures) 

Typically Offered: Fall and Spring

A study of first aid dealing with fractures, dislocations, wounds, hemorrhages, poisoning, drowning and cardiopulmonary respiration. Students can receive Standard First Aid and Adult CPR Red Cross certification. *Satisfactory/Unsatisfactory grading option is available. May be taken four times for credit. Corequisite: RDG094.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



PEH110 Lifetime Fitness and Wellness

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

An introduction to a complete and personalized lifetime fitness and wellness program with thorough discussion on lifestyle management, wellness and components of physical fitness and mental health.


PEH111 Nutrition for Health, Fitness and Sport

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Nutrition, exercise, health related and sports related fitness including: the essential nutrients and the recommended nutrient intake for fitness and sport, weight maintenance through proper nutrition and exercise for health and sport.


PEH200 Sports Safety Training

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Sports Safety Training, CPR and AED for the Professional Rescuer including soft tissue and skeletal injury prevention, first aid and emergency steps for breathing and cardiac care. May be taken four times for credit. *Corequisite:* RDG094.

PEH203 Group Fitness Instructor Methods

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

American Council on Exercise (ACE) preparation course for the Group Fitness Instructor Certification exam. *Prerequisite:* RDG094.

PHYSICAL EDUCATION VARSITY SPORTS (PEV)

PEV110 Rodeo Sports Events I

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall and Spring

Development of skills in one or more of the following rodeo events: steer wrestling, calf roping, team roping, bull riding,

bareback riding, saddle bronco riding, barrel racing, goat tying or breakaway roping. *May be taken four times for credit. Prerequisite:* Intercollegiate Rodeo team member.

PEV201 Varsity Basketball I

1 Credit (3 Labs)

Typically Offered: Fall

Hone basketball skills, knowledge and strategies. Explain and adhere to NJCAA regulations, basketball etiquette and team rules. *May be taken two times for credit. Prerequisite:* Intercollegiate Basketball team member.

PEV202 Varsity Baseball I

1 Credit (3 Labs)

Typically Offered: Fall

For members of the intercollegiate varsity baseball team. *May be taken three times for credit. Prerequisite:* Intercollegiate Baseball team member.

PEV203 Varsity Track and Field I

1 Credit (3 Labs)

Typically Offered: Fall

Hone track and field skills, knowledge and strategies. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit. Prerequisite:* Intercollegiate Track and Field team member.

PEV205 Varsity Softball I

1 Credit (3 Labs)

Typically Offered: Fall

For members of the intercollegiate varsity softball team. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit. Prerequisite:* Intercollegiate Softball team member.

PEV206 Varsity Cross Country I

1 Credit (3 Labs)

Typically Offered: Fall

Varsity level Cross-Country I includes rules and athlete code of conduct, training and competition strategies, teamwork and sports etiquette. *May be taken two times for credit. Prerequisite:* Intercollegiate Varsity Cross-Country team member.

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



PEV207 Varsity Volleyball I

1 Credit (3 Labs)

Typically Offered: Fall

Hone volleyball skills, knowledge and strategies. *May be taken two times for credit. Prerequisite: Intercollegiate Varsity Volleyball Team member.*

PEV211 Varsity Basketball II

1 Credit (3 Labs)

Typically Offered: Spring

Intercollegiate varsity basketball with application of theory in NJCAA events. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit. Prerequisite: PEV201 or instructor consent.*

PEV212 Varsity Baseball II

1 Credit (3 Labs)

Typically Offered: Spring

Intercollegiate Varsity Baseball with application of theory in NJCAA events. *May be taken two times for credit. Prerequisite: PEV202 or instructor consent.*

PEV213 Varsity Track and Field II

1 Credit (3 Labs)

Typically Offered: Spring

Intercollegiate Varsity Track and Field with application of theory in NJCAA events. *Satisfactory/Unsatisfactory grading option is available. May be taken two times for credit. Prerequisite: PEV203 or instructor consent.*

PEV215 Varsity Softball II

1 Credit (3 Labs)

Typically Offered: Spring

Intercollegiate Varsity Softball with application of theory in NJCAA events. *May be taken two times for credit. Prerequisite: PEV205 or instructor consent.*

PEV216 Varsity Cross Country II

1 Credit (3 Labs)

Typically Offered: Spring

Intercollegiate Varsity Cross Country with application of theory in NJCAA events. *May be taken two times for credit. Prerequisite: PEV206 or instructor consent.*

PEV217 Varsity Volleyball II

1 Credit (3 Labs)

Typically Offered: Spring

Intercollegiate Varsity Volleyball with application of theory in NJCAA events. *Satisfactory/unsatisfactory grading option is available. May be taken two times for credit. Prerequisite: PEV207 or instructor consent.*

For Physical Geography, see Geography.

PHYSICS (PHY)

PHY100 Physical Universe

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall and Spring

The basic principles of physics and chemistry and their application in science, technology and everyday life. Emphasis is on the fundamental behavior of matter and energy in physical systems with concepts presented and applied at the mathematical level of elementary algebra. *Prerequisites: RDG094; MAT092 or higher.*

PHY111 College Physics I

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall

Non-calculus treatment of the principles of physics for non-physics majors, covering the motion of particles in one and two dimensions, Newton's laws, energy, momentum, angular momentum, conservation laws, gravitation, fluids, mechanical waves, sound, temperature, heat, heat engines, the laws of thermodynamics and special relativity. *Prerequisites: RDG094; MAT182 or MAT187 .*

PHY112 College Physics II

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Spring

Non-calculus treatment of the principles of physics for non-physics majors, covering electricity, magnetism, circuits, electromagnetic waves, light, optics and modern physics. *Prerequisites: PHY111 ; MAT182 or MAT187 .*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



PHY121 University Physics I: Mechanics

4 Credits (3 Lectures, 3 Labs) PHY1121

Typically Offered: Fall

First course in the three-semester, calculus-based University Physics sequence covering kinematics, Newton's laws, work, energy, momentum, angular momentum, conservation laws, Statics and dynamics of particles, solids, fluids, mechanical waves and sound. *Prerequisite:* MAT221 .

PHY122 University Physics II: Electricity and Magnetism

4 Credits (3 Lectures, 3 Labs) PHY1131

Typically Offered: Spring

Second course in the three-semester, calculus-based University Physics sequence covering electric charge and current, electric and magnetic fields in vacuum and materials, elementary AC and DC circuit analysis with resistive, capacitive and inductive elements, displacement current, electromagnetic waves and Maxwell's equations. *Prerequisite:* PHY121 . *Corequisite:* MAT231 .

PHY223 University Physics III: Vibrations and Waves

4 Credits (3 Lectures, 3 Labs)

Typically Offered: Fall

Final course in the three-semester, calculus-based University Physics sequence, covering thermodynamics, kinetic theory, physical and wave optics, matter waves, relativity, photons and atomic physics. *Prerequisites:* MAT231 and PHY122 .

POLITICAL SCIENCE (POS)

POS101 American Politics

3 Credits (3 Lectures) POS 1110

Typically Offered: Fall and Spring

The theory, organization, politics, function and problems of the federal system of government in the United States; the growth of self-government to the adoption of the federal form; the powers, functions and related activities of national government and institutions. Meets the national government requirement for teacher certification. *Field trips may be required. Prerequisite:* RDG094.

POS103 Arizona Constitutional Government

1 Credit (1 Lecture)

Typically Offered: Fall and Summer

Constitution and government of the state of Arizona. Meets the Arizona government requirement for teacher certification. *Field trips may be required. Prerequisite:* RDG094.

POS104 Contemporary Issues in World Politics

3 Credits (3 Lectures) POS 1120

Typically Offered: Spring

A study of the international system, its actors and their capabilities; ends and means of foreign policy; international tension; conflict and cooperation in an age of increasing globalization. *Prerequisite:* RDG094.

POS105 U.S. Constitution

2 Credits (2 Lectures)

Typically Offered: Fall and Summer

An examination of the U.S. Constitution, Bill of Rights and other significant amendments including the historic background, theory, organization and functions of the federal system of government in the United States. Meets the Arizona State Department of Education U.S. Constitution requirement for teacher certification. *Prerequisite:* RDG094.

POS220 U.S. and Arizona Constitutions

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

An examination of the U.S. Constitution, the Bill of Rights and other significant amendments, and the Constitution of the State of Arizona, including the historic background, theory, organization and functions of the U.S. federal and state systems of government. Course is required to meet the Arizona State Department of Education U.S. Constitution and Arizona government requirements for teacher certification. Course meets the state requirements for the A.A.S Degree in Corrections. *Students selecting POS220 (3) should not enroll in either POS103 (1) or POS105 (2). Prerequisite:* RDG094. *Recommended:* This course meets the Arizona State requirements for teacher certification. *Students selecting POS220 (3) should not enroll in either POS103 (1) or POS105 (2). This is a required course for the Corrections AAS Degree.*

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



PSYCHOLOGY (PSY)

PSY101 Introduction to Psychology

3 Credits (3 Lectures) PSY1101

Typically Offered: Fall, Spring and Summer

Introduction to principles and theories of human behavior, development, personality and cognition, and the relationship to societal issues. Historical views and research methodology applied to psychology are also presented. *Field trips may be required. Prerequisite: RDG094.*

PSY200 Social Psychology

3 Credits (3 Lectures)

Typically Offered: Every other fall; consult CAC Class Schedule.

Principles of sociology and psychology with emphasis on the individual and his/her reciprocal interaction with groups, basic psychological factors, social attitudes, language and communication, society and cultures, small groups and their relation to the individual, leadership and group dynamics. *Prerequisite: PSY101 .*

PSY202 Psychology of Abnormality

3 Credits (3 Lectures)

Typically Offered: Consult CAC Class Schedule.

Theories of normality and abnormality, models of psychopathology, classification and treatment of mental disorder and principles of various forms of psychotherapy. *Prerequisite: PSY101 .*

PSY203 Developmental Psychology

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Biosociopsychological approach to the study of human development, focusing on personality, social, physical and cognitive changes from conception to late adulthood. *Prerequisite: PSY101 ; Corequisite: ENG102 .*

PSY205 Personality and Social Adjustment

3 Credits (3 Lectures)

Typically Offered: Every other spring; consult CAC Class Schedule.

Explore personality theory and assessment, research methodology, hypothesis testing, life planning and social adjustment, utilizing the principles of positive psychology in order to increase self-awareness and health. *Prerequisite: PSY101 .*

PSY230 Introduction to Statistics

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Descriptive statistics, probability and application, probability distributions of random variables, inferential statistics and statistical decision-making. *Prerequisites: MAT121; RDG094.*

PSY277 Human Sexuality

3 Credits (3 Lectures)

Typically Offered: Every other spring; consult CAC Class Schedule.

An exploration of psychological, sociological, physiological aspects of human sexuality within the context of individual development, family, culture, and society. *Prerequisites: SOC101 or PSY101 and ENG101 .* Cross Listed: SOC277.

RADIOLOGY (RAD)

RAD100 Fundamentals of Radiologic Science and Healthcare

1 Credit (1 Lecture)

Typically Offered: Spring

Introduction to the field of radiology, the healthcare system and the Radiologic Technology program. Content also includes an introduction to radiologic terminology, ethics, patient care, health care systems, accreditation and professional organizations and radiation protection. *Prerequisites: HCC100, HCC111, HCC116 and Radiologic Technology cohort student.*

ICON LEGEND:

AGEC:

Intensive Writing:

Reading Required: RDG094:

SUN Course:



RAD110 Radiographic Positioning I

4 Credits (2 Lectures, 6 Labs)

**Typically
Offered:** Spring

An introduction to radiographic positioning and a review of related anatomy, covering anatomy and physiology and the fundamentals of radiographic positioning for the upper and lower extremities, shoulder girdle, chest, pelvis, pelvic girdle, abdomen and vertebral column. *Prerequisite: Radiologic Technology cohort student.*

RAD120 Principles of Radiographic Exposure I

3 Credits (3 Lectures)

**Typically
Offered:** Spring

An introduction to the fundamental factors of film-screen image production, processing, film imaging with related accessories and image analysis. *Prerequisite: Radiologic Technology cohort student.*

RAD130 Patient Care in Radiologic Science

2 Credits (2 Lectures)

**Typically
Offered:** Summer

Basic concepts of patient care, physical and psychological needs of the patient/family. Infection control measures, routine/emergency patient care procedures; patient safety, assessment, radiologic technologist/patient communications and patient care devices are presented. *Prerequisite: Radiologic Technology cohort student.*

RAD140 Practicum I

3 Credits (3 Practica – 240+ Hours)

**Typically
Offered:** Summer

Initial clinical radiography experience that applies radiographic theory to the performance of procedures. Through structured, sequential competency-based assignments under supervision, students acquire proficiency in clinical practice and the performance of radiographic exams. *Prerequisite: Radiologic Technology cohort student.*

RAD150 Radiation Physics I

3 Credits (3 Lectures)

**Typically
Offered:** Fall

The fundamentals of radiation production/characteristics including the basics of atomic structure, the nature of radiation, interactions of photons with matter and associated terminology. *Prerequisite: Radiologic Technology cohort student.*

RAD160 Radiographic Positioning II

4 Credits (2 Lectures, 6 Labs)

**Typically
Offered:** Summer

Human structure/function, sectional anatomy and the fundamentals of radiographic positioning of the bony thorax, contrast studies of urinary and digestive systems, cranium, arthrography, myelography, venography, pediatric imaging, basic mobile radiography and imaging during trauma and surgery. *Prerequisites: RAD110 and Radiologic Technology cohort student.*

RAD170 Principles of Radiographic Exposure II

3 Credits (3 Lectures)

**Typically
Offered:** Fall

Digital image acquisition, image display and image analysis. *Prerequisites: RAD120 and Radiologic Technology cohort student.*

RAD180 Practicum II

3 Credits (3 Practica – 240 Hours)

**Typically
Offered:** Fall

Structured, sequential competency-based assignments under supervision; students will acquire proficiency in clinical practice and the performance of radiographic exams. *Prerequisite: Radiologic Technology cohort student.*

RAD200 Practicum III

7 Credits (7 Practica – 600 Hours)

**Typically
Offered:** Spring

Through structured, sequential competency-based assignments under supervision, students acquire proficiency in clinical practice and the performance of radiographic exams. *Prerequisite: Radiologic Technology cohort student.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



RAD210 Radiation Physics II

3 Credits (3 Lectures)

Typically Offered: Summer

A continuation of “Radiation Physics I” covering the basics of imaging systems and quality control. *Prerequisites: RAD140 and Radiologic Technology cohort student.*

RAD230 Radiobiology and Radiation Protection

3 Credits (3 Lectures)

Typically Offered: Summer

This course builds and expands on the basic and radiation protection concepts presented in the “Fundamentals of Radiologic Science and Healthcare.” Content includes the principles of the interaction of ionizing radiation, biological systems and concepts of radiation protection. *Prerequisites: RAD100 and Radiologic Technology cohort student.*

RAD240 Practicum IV

4 Credits (4 Practica – 360 Hours)

Typically Offered: Summer

Through structured, sequential competency-based assignments under supervision, students will acquire proficiency in clinical practice and the performance of radiographic exams. *Prerequisite: Radiologic Technology cohort student.*

RAD250 Pharmacology and Venipuncture

1 Credit (1 Lecture)

Typically Offered: Fall

The theory and practice of pharmacology, including basic techniques of venipuncture and administration of diagnostic contrast agents and/or intravenous medications. *Prerequisite: Radiologic Technology cohort student.*

RAD260 Radiographic Pathology

2 Credits (2 Lectures)

Typically Offered: Fall

The concepts of disease and the etiology of selected pathologic conditions are examined with an emphasis on the radiographic appearance of various diseases and the influence of pathologic changes on considerations of technique. *Prerequisite: Radiologic Technology cohort student.*

RAD270 Advanced Imaging

2 Credits (2 Lectures)

Typically Offered: Fall

An overview of the various fields of medical imaging with a focus on Computed Tomography. *Prerequisite: Radiologic Technology cohort student.*

RAD280 Registry Review

3 Credits (3 Lectures)

Typically Offered: Fall

A comprehensive review geared toward preparing students for the national ARRT registry examination. *Prerequisite: Radiologic Technology cohort student.*

RAD290 Practicum V

4 Credits (4 Practica - 360 Hours)

Typically Offered: Fall

The final course in the clinical radiography experiences series that applies radiographic theory to the performance of procedures and continued application and reinforcement of skills mastered in previous practicums. Through structured, sequential competency-based clinical assignments under supervision, students continue to refine and enhance proficiency in an effort to achieve professional entry level competency. Observations in specialized imaging areas will be optional during this practicum. *Prerequisites: RAD240 and Radiologic Technology cohort student.*

READING (RDG)

RDG090 Reading Fundamentals

2 Credits (2 Lectures)

Typically Offered: Fall, Spring, Summer, Open Entry/Closed Exit

Reading strategies to increase comprehension, phonemic awareness, fluency and vocabulary. *Prerequisites: English speaking proficiency and (COMPASS score below 30 or an ASSET score below 27).*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



RDG091 College Vocabulary

4 Credits (4 Lectures)

Typically Offered: Fall, Spring and Summer

Increase reading comprehension, reading fluency, and college level vocabulary by exploring the relationship between words and ideas, word parts, context clues, and how they all contribute to determining the topic, main idea, and details in a reading selection. To pass the course, a grade of "C" or better must be achieved. *Prerequisite: RDG090.*

RDG094 College Reading

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Emphasizes effective reading and critical thinking skills leading to increased reading comprehension necessary for college-level texts. Completion of this course with a grade of "C" or better fulfills the college reading proficiency requirement. *Prerequisite: RDG091 or appropriate placement score.*

REAL ESTATE (REA)

REA122 Real Estate Principles and Practices

6 Credits (6 Lectures)

Typically Offered: Fall, Spring and Summer

Basic principles of real estate including estates, real estate code, commissioner's rules, land description, title acquisition, contracts, escrow procedures, title insurance, encumbrances-burdens in title, financing, government restrictions, toxic waste and environmental hazards, water rights, ethics, valuations, taxation and property management. *Satisfactory/Unsatisfactory grading option is available.*

REA124 Introduction to Contract Writing

1 Credit (1 Lecture)

Typically Offered: Fall, Spring and Summer

A course on writing real estate contracts and real estate law required for real estate licensure activation.

REA283 Residential Property Management

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

Course will benefit a landlord, a real estate licensee, or an unlicensed property management assistant. The course provides an overview of landlord responsibilities, residential laws pertaining to property management, case studies, contracts, disclosures and communication between landlords and tenants.

RECREATION (REC)

REC101 Recreation, Leisure and the Quality of Life


3 Credits (3 Lectures)  

Typically Offered: Fall, Spring and Summer

The conceptual foundations of recreation, play and leisure from cultural, historical, philosophical, physiological, psychological and sociological perspectives, and the significance of recreation, play and leisure on life quality.

Prerequisite: RDG094.

REC102 Leisure and Society

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Analysis of the human relationship to leisure; a survey of the historical, environmental, philosophical, political, psychological and socioeconomic foundations for the development of systems that provide leisure programs.

Prerequisite or corequisite: RDG094.

REC108 Recreation Practicum

3 Credits (1 Lecture, 6 Labs)

Typically Offered: Fall, Spring and Summer

The special duties and problems of aides and supervisors of recreation programs; observation and participation in assigned situations.

ICON LEGEND:

AGEC: 


Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



REC203 Leisure Delivery Systems

3 Credits (3 Lectures) 

Typically Offered: Fall and Spring

Development, management and organization of public, nonprofit and private sectors of the leisure services profession and industry. *Prerequisite or corequisite: RDG094.*

REC220 Introduction to Nonprofit Youth and Human Service Agencies

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Exploration of the nonprofit youth and human service agency sector, its unique structure and its role in the delivery of services, the economy and society at large.

REC230 Program Planning

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Effective leisure and recreation program planning in the public, nonprofit and private sectors.

REC250 Leadership in Recreation

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Theories and strategies for leadership in recreation and tourism settings, including communication skills, group dynamics, motivational processes and supervisory skills.

RENEWABLE ENERGY TECHNOLOGY (RET)

RET105 Introduction to Renewable Energy

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

An introduction to energy systems and renewable energy resources, with a scientific examination of the energy field and an emphasis on alternate energy sources, their technology and application. Explores society's present needs and future energy demands, examines conventional energy sources and systems, including fossil fuels and nuclear energy, alternate, renewable energy sources such as solar, biomass (conversions), wind power, geothermal and hydro energy conservation methods.

RET150 Pollution Controls and Industrial Waste

2 Credits (2 Lectures)

Typically Offered: Fall, Spring and Summer

Industrial pollution control of chemical, physical and biological treatment processes, including pollution prevention, waste minimization and disposal.


RET160 OSHA Safety for Renewable Energy

1 Credit (3 Labs)

Typically Offered: Fall, Spring and Summer

Training for renewable energy workers, including renewable energy science terminology and principles, safety equipment and OSHA standards.


RET250 Ethanol Process Fundamentals

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

The history, chemistry, legal and political issues and fundamental processes of ethanol production, including the rationale for feedstock and additives used in ethanol processing and co-product production and use. Ethanol plant Process Flow Diagram (PFD) includes residence time, pressures and temperatures in production stages. *Prerequisite: RDG094.*


RET252 Biofuels Facilities Design and Boiler Systems

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

Biofuels facilities including boiler system design, operation, maintenance, philosophy, code and standard compliance and troubleshooting. *Prerequisite: RDG094.*

RET255 Distillation and Evaporation Theory

3 Credits (3 Lectures) 

Typically Offered: Fall, Spring and Summer

Basic distillation and evaporation theory including design of column internals, critical design aspects of trays, packings and ancillary equipment. Philosophy and practice of troubleshooting systems. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC: 

Intensive Writing: 

Reading Required: RDG094: 

SUN Course: 



RET275 Biodiesel Production and Design

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Biodiesel production and design in transformation of biomass and other resources into biofuels and bio products. Includes biodiesel history, chemistry, legal factors and political factors. Technical applications focus on technologies for bioconversion of renewable resources. Consideration of technologies for future energy needs. *Prerequisite: RDG094.*

RET296 Renewable Energy Technology Internship

4 Credits (4 Internships)

Typically Offered: Spring

Internship in renewable energy sector with placements tailored to the students' academic program, interests and skills. Since each internship is different and different skills may be learned. May be taken two times for credit. *Prerequisites: RDG094 and instructor consent.*

SIGN LANGUAGE (SLG)

SLG101 American Sign Language I

4 Credits (4 Lectures)

Typically Offered: Consult CAC Class Schedule.

Introduction to the Deaf culture and the vocabulary and sentence structures of American Sign Language (ASL). Mastery of receptive and expressive basic communication skills.

SLG102 American Sign Language II

4 Credits (4 Lectures)

Typically Offered: Consult CAC Class Schedule.

Expanded ASL knowledge, vocabulary and performance skills. Refinement of receptive and expressive skills. *Prerequisite: SLG101 or instructor consent.*

SLG201 American Sign Language III

4 Credits (4 Lectures)

Typically Offered: Consult CAC Class Schedule.

A continuation of the skills taught in SLG102. This course emphasizes improved fluency and comprehension of ASL, Deaf culture and the evolution of ASL. *Course is taught primarily in American Sign Language. Prerequisite: SLG102.*

SLG202 American Sign Language IV

4 Credits (3 Lectures, 1 Recitation)

Typically Offered: Consult CAC Class Schedule.

Building upon the skills taught in SLG201, this course emphasizes advanced sign language fluency, conversational skills, comprehension skills and cultural features. *Course is taught primarily in American Sign Language. Prerequisites: RDG094, SLG201.*

SOCIAL WORK UNDERGRADUATE (SWU)

SWU171 Introduction to Social Work

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

A descriptive and analytical historical perspective of the profession of social work, social problems and the social welfare system. *Prerequisite: RDG094.*

SWU242 Introduction to Child Welfare Service in a Diverse World

3 Credits (3 Lectures)

Typically Offered: Every other fall; consult CAC Class Schedule.

Examine contemporary child welfare policies and practices in the United States, including the rights of children, the rights and responsibilities of parents and society and their point of conflict. The nature and impact of child maltreatment, the ways in which society prevents or responds to the social problem of child maltreatment, and the system of response to child maltreatment are addressed. *Prerequisite: ENG101* .

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



COURSE DESCRIPTIONS

SWU291 Social Service Delivery

3 Credits (3 Lectures)

Typically Offered: Spring

Purpose, structures and delivery systems of human service agencies, including 40 hours of volunteer experience in local human service agencies. *Prerequisite:* SWU171 and division chair consent.

SWU295 Foundations of Social Work Practice: Effective Helping in a Diverse World

3 Credits (3 Lectures)

Typically Offered: Every other spring; consult CAC Class Schedule.

Theoretical foundations and skills base for effective culturally competent communication and interviewing with individuals, families, small groups and larger systems. *Prerequisite:* ENG101

SOCIOLOGY (SOC)

SOC101 Introduction to Sociology

3 Credits (3 Lectures) SOC 1101

Typically Offered: Fall, Spring and Summer

The systematic study of society; the role and impact of society on individual and group social interaction. *Prerequisite:* RDG094.

SOC200 Racial and Ethnic Minorities

3 Credits (3 Lectures) SOC 2215 IW

Typically Offered: Every other spring; consult CAC Class Schedule.

Race and ethnicity in American society including such topics as discrimination, segregation, conflict, power and assimilation with an emphasis on contemporary issues. *Prerequisites:* SOC101 and ENG101 . *Corequisite or prerequisite:* ENG102 .

SOC202 Contemporary Social Problems

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

A systematic study of contemporary American and global social problems from a sociological viewpoint. *Prerequisite:* RDG094.

SOC203 Marriage and the Family

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

A comprehensive examination of marriage and the family as a cultural unit and a social institution. *Prerequisite:* RDG094.

SOC212 Gender in Society

3 Credits (3 Lectures)

Typically Offered: Every other fall; consult CAC Class Schedule.

Social structures and processes related to the construction of gender in society, including theoretical perspectives, impact of politics past and present, sex versus gender, and gender in the workplace, media, religion, medicine and in global perspective. *Prerequisite:* RDG094.

SOC250 Family Violence

3 Credits (3 Lectures)

Typically Offered: Every other fall; consult CAC Class Schedule.

The introduction to concepts related to family/intimate violence with an emphasis on legal, social and psychological aspects of abuse. *Prerequisite:* RDG094.

SOC277 Human Sexuality

3 Credits (3 Lectures)

Typically Offered: Every other spring; consult CAC Class Schedule.

An exploration of psychological, sociological and physiological aspects of human sexuality within the context of individual development, family, culture and society. *Prerequisites:* SOC101 or PSY101 and ENG101 . *Cross Listed:* PSY277.

SPANISH (SPA)

SPA101 Elementary Spanish I

4 Credits (4 Lectures, 1 Lab) SPA 1101

Typically Offered: Fall, Spring and Summer

The basic skills of understanding, speaking, reading and writing Spanish with a survey of cultural materials from Spanish-speaking countries.

ICON LEGEND:

AGEC:

Intensive Writing: IW

Reading Required: RDG094:

SUN Course:



SPA102 Elementary Spanish II

4 Credits (4 Lectures, 1 Lab) 📖 SPA 1102

Typically Offered: Fall, Spring and Summer

Refinement of basic communication skills in Spanish, emphasizing reading, writing, speaking and listening exercises. Survey of cultural norms, beliefs and traditions from areas where Spanish is spoken. *Prerequisite:* SPA101 📖 or one full year of high school Spanish completed with a grade of "B" or better or instructor consent.

SPA115 Conversational Spanish I

3 Credits (1 Lecture, 2 Recitations)

Typically Offered: Fall, Spring and Summer

Introduction to conversational Spanish. Fundamentals of authentic speaking and listening skills in Spanish, with minimal grammar instruction. Introduction to cultures of the Spanish-speaking world.

SPA117 Latin American Culture and Spanish Conversation I

3 Credits (3 Lectures)

Typically Offered: Summer

Students will immerse themselves within the culture by living with families in Latin American countries (Mexico, Costa Rica, etc.), conversing daily in conversational classes, and participating in daily cultural activities and excursions.

SPA118 Latin American Culture and Spanish Conversation II

3 Credits (3 Lectures)

Typically Offered: Summer

Students will immerse themselves within the culture by living with families in Latin American countries (Mexico, Costa Rica, etc.) conversing daily in conversational classes, and participating in daily cultural activities and excursions. *Prerequisite:* SPA117.

SPA201 Intermediate Spanish I

4 Credits (4 Lectures, 1 Lab) 📖 SPA 2201 📖 📖

Typically Offered: Fall and Spring

Development of reading, writing, speaking and listening skills proficiency in Spanish, at the novice intermediate level. Continuation of understanding, appreciation and sensitivity to aspects of Hispanic cultures. *Prerequisites:* RDG094 and (SPA102 📖 or four semesters of high school Spanish with a grade of "B" or better).

SPA202 Intermediate Spanish II

4 Credits (4 Lectures, 1 Lab) 📖 SPA 2202 📖

Typically Offered: Fall, Spring and Summer

Continued development of speaking, writing, listening and reading proficiency in Spanish at the intermediate level. A continued study and appreciation of cultures of the Spanish-speaking world. *Prerequisite:* SPA201 📖 or instructor consent.

THEATER (THE)

THE100 Theater Appreciation

3 Credits (3 Lectures) 📖 📖

Typically Offered: Fall and Spring

Survey of theater, including the origins of drama, influence of significant plays, contributions of the actors, directors, designers, stage managers and playwrights. Evaluation of stage and filmed versions of plays and how society influenced the development and creation of plays. *Prerequisite:* RDG094.

THE101 Beginning Acting I

3 Credits (2 Lectures, 3 Labs) 📖

Typically Offered: Fall and Spring

Intro to the fundamentals of acting through physical expression, improvisation and performance of short scenes. Designed for students with little or no experience. *Prerequisite:* RDG094.

ICON LEGEND:

AGEC: 📖

Intensive Writing: IW

Reading Required: RDG094: 📖

SUN Course: 📖



THE102 Beginning Acting II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Continuing study of the fundamentals of acting with emphasis on script analysis, character analysis and the rehearsal process through the performing of two or three short scenes.

Prerequisite: THE101 or instructor consent.

THE103 Introduction to Technical Theater

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall and Spring

Theater safety, production organization and management, and introduction to basic technical design concepts, including scenic, stage lighting and sound design. Students perform the technical aspects for selected events in the Pence Center for the Performing and Visual Arts during the semester. *Prerequisite: RDG094.*

THE104 Stagecraft

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall and Spring

Basic backstage techniques in building, painting and rigging of scenery. Operation of stage lighting, sound and curtain equipment. *May be taken two times for credit. Prerequisite: RDG094.*

THE105 Lighting I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Introduction to the technical aspects of concert and theatrical lighting, including basic design, color theory, instrument types, power distribution, control, safety and the proper hanging, connection, focus and control of instruments. *Prerequisite: EIT101.*

THE110 Stage Combat

3 Credits (2 Lectures, 3 Labs) 

Typically Offered: Fall and Spring

Stunt fighting including hand-to-hand combat and the possible use of rapier, rapier-and-dagger or quarterstaff. *May be taken two times for credit. Prerequisite: RDG094.*


THE111 Improvisational Acting I

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Actors gain experiential understanding of improvisational acting and develop a strong improvisational perspective essential to scripted work. Topics include development of physical and vocal characteristics; development of imagination, listening and observations skills; individual and group improvisations to communicate character, emotion and conflict; and live performance. *May be taken two times for credit.*


THE112 Introduction to the Performing Arts

2 Credits (1 Lecture, 3 Labs) 

Typically Offered: Fall, Spring and Summer

Students meet once per week to explore the theater as an art form. Students work 28 hours over the course of the semester behind the scenes of a theatrical production to gain first-hand experience and attend one live theater production. *May be taken four times for credit. Prerequisite: RDG094.*

THE113 Theater Workshop: Stagecraft

2 Credits (6 Labs) 

Typically Offered: Fall and Spring

Production experience in technical theater as a member of one or more technical activities. Positions are stage lighting, sound reinforcement and recording, properties, costumes, scenic artist, multimedia graphics design and set construction. *May be taken four times for credit. Prerequisite: RDG094.*

THE115 Introduction to Cinema

3 Credits (3 Lectures)  

Typically Offered: Fall, Spring and Summer

Survey of the history and development of the art of motion pictures, including criticism of aesthetic and technical elements. *Prerequisite: RDG094.*

THE116 Contemporary Cinema

3 Credits (3 Lectures)  

Typically Offered: Fall, Spring and Summer

Survey of various genres of motion picture films since 1960, including criticism of aesthetic and technical elements. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC: 


Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



THE119 Theater Workshop: Drama

2 Credits (6 Labs) 

Typically Offered: Fall, Spring and Summer

Participation as an actor, understudy or assistant to the director in the semester's production. Actors are selected by audition. Participation as an assistant to the director is based on availability of a position. *May be taken four times for credit. Prerequisite: RDG094. Cross Listed: MUP119.*

THE163 Scenic Design

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Design, plan and execute scenery with emphasis on craftsmanship, a safe work environment, creating and maintaining an organized work place and estimating time and energy to build various units of scenery.

THE164 Costume Design

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Costume design and execution using traditional and creative methods and generating all production work. Course includes design, fitting, sewing and repairs; budgeting and calculations to maximize efficiency and minimize cost; and creative and critical problem solving techniques. *Prerequisite: THE104.*

THE165 Makeup Design

2 Credits (1 Lecture, 3 Labs)

Typically Offered: Fall and Spring

Makeup design and execution using traditional and newly developed methods, including corrective makeup, old age makeup, facial prosthetics, facial hair/wig appliances, as well as a wide range of fantasy makeup applications. *Prerequisite: THE104.*

THE203 Intermediate Acting I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Continuing study of the fundamentals of acting with emphasis on movement and voice. In addition to performing in scenes and/or one-act plays, students learn two monologues to further prepare them for auditioning. *Prerequisite: THE102 or instructor consent.*

THE204 Intermediate Acting II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Continuing study of the fundamentals of acting with emphasis on career opportunities, further training opportunities and the introduction of acting style. In addition to performing in scenes and/or one-act plays, students learn two monologues to further prepare them for auditioning. *Prerequisite: THE203 or instructor consent.*

THE205 Stagecraft II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Advanced stagecraft techniques and concepts, including the visual aspects of theater created through design, planning and executing scenery creation. Emphasis is on quality craftsmanship, a safe work environment, creating and maintaining an efficient and organized work place, estimating time and energy required to build various units of scenery and executing designs to meet deadlines. *Prerequisite: THE104.*

THE261 Acting for the Camera

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Develop an actor's approach to the special demands of acting in front of a camera. Emphasis is placed on the development of specific performance skills used for television and film acting. A capstone portfolio includes a variety of audition shorts. *Prerequisite: THE101 or instructor consent. Cross Listed: EIT261.*

THE262 Meisner Acting Technique I

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

Actors gain experiential understanding of improvisational acting and develop a strong improvisational perspective essential to scripted work. Topics include development of physical and vocal characteristics; development of imagination, listening and observations skills; individual and group improvisations to communicate character, emotion and conflict; and live performance. *Course may be taken two times for credit.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



THE270 Education through Drama in the Elementary Classroom

3 Credits (3 Lectures)

Typically Offered: Fall and Spring

Hands-on opportunity to learn and teach drama based classroom activities that support learning in the elementary classroom. Develop an understanding of the research supporting the use of drama in the classroom. *Cross Listed: EDU270.*

WELDING (WLD)

WLD110 Survey of Welding Processes

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Fundamental welding processes and procedures including basic shield arc, oxy-acetylene, tungsten inert gas and metal inert gas welding using manual setting machines and digital machines.

WLD120 Oxy-Acetylene Welding

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

The fundamentals of oxy-acetylene welding including equipment use and safety procedures in brazing, cast iron, silver soldering, running all-directional beads and machine cutting.

WLD121 Shielded Metal Arc Welding I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

The fundamentals of arc welding using manual setting machines and digital machines with emphasis on running beads in all positions, identification of electrodes, hand flame cutting with the torch and identification of metal.

WLD122 Shielded Metal Arc Welding II

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Advanced arc welding using manual and digital setting machines with emphasis on out-of-position welding, basic destructive and non-destructive testing, oxy-acetylene cutting, arc air cutting and plasma arc cutting. *Prerequisite: WLD120 or WLD121.*

WLD125 Pipe Welding I

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Basic pipe welding of underground and industrial pipelines. Students will cut, bevel, fit and weld pipe. *Prerequisite: WLD122.*

WLD128 Blueprint Reading for Welders

3 Credits (3 Lectures)

Typically Offered: Fall, Spring and Summer

The fundamentals of reading and interpreting welding symbols and blueprints as they pertain to the area of welding technology.

WLD196 Welding Technology Internship

3 Credits (3 Internships – 135 hours)

Typically Offered: Fall, Spring and Summer

This internship provides career advancement study to help students obtain hands-on work experience. Students gain experience using machines and tools only available in that work setting, such as operation of a press brake for forming steel, operation of overhead cranes, rigging and lifting materials, actual fit-up and welding of a production product, and/or operating a sheer for cutting heavy steel materials. *This Internship requires 135 hours. Prerequisites: Welding Technology Certificate or Welding Technology AAS Degree student, Minimum CGPA 3.0, and program director consent.*

ICON LEGEND:

AGEC:

Intensive Writing: *IW*

Reading Required: RDG094:

SUN Course:



WLD221 Gas Tungsten Arc Welding

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

Techniques of Gas Tungsten Arc welding including the theory, operation, safety, care and maintenance of the Gas Tungsten Arc Welding equipment, both manual and digital. Additionally students will use oxy-acetylene torch and tungsten inner gas welding processes on ferrous and non-ferrous metals with various joint designs.

WLD222 Gas Metal Arc Welding

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall and Spring

This welding course focuses on short-circuiting, spraying and globular transferring of ferrous and non-ferrous metals and flux-cored welding in the flat and horizontal positions, with an emphasis on proper use and care of equipment and safety procedures. *Prerequisite: WLD110.*

WLD223 Automatic and Semi-Automatic Welding

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Development of the necessary skills to enter the welding industry, including TIG and MIG techniques. *Prerequisite: WLD221.*

WLD225 Shielded Metal Arc Welding III

3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring and Summer

Use of E7018 and E6011 electrodes in the flat, horizontal and overhead welding positions, with emphasis on basic joints placed in out-of-position per AWS D1-1 Guided Bend Test, and Destructive Methods. *Prerequisite: WLD122.*

WLD227 Welding Design and Fabrication


3 Credits (2 Lectures, 3 Labs)

Typically Offered: Fall, Spring, Summer and Open Entry/Open Exit

Welding design, layout and fabrication processes with job/shop oriented environment and emphasis on instructor pre-approved individual and group projects. *May be taken two times for credit.*

WOMEN AND GENDER STUDIES (WGS)

WGS100 Introduction to Gender and Women's Studies

3 Credits (3 Lectures) 

Typically Offered: Every other spring; consult CAC Class Schedule.

Interdisciplinary survey of gender and feminist issues in contemporary society. Includes theoretical approaches to gender and gender socialization; body, health and intimacy issues; gender and religion; contemporary issues in politics/law, education, work and family. *Prerequisite: RDG094.*

ICON LEGEND:

AGEC: 

Intensive Writing: *IW*

Reading Required: RDG094: 

SUN Course: 



General Information



Signal Peak Campus



BOARD OF GOVERNORS



Mrs. Gladys Christensen
District 1



Dr. Debra Banks
District 2



Mr. Richard Gibson
District 3



Mrs. Rita Nader
District 4



Mr. Jack Yarrington
District 5

COLLEGE ADMINISTRATION

Doris Helmich Ed.D.
President
Chief Executive Officer

Chris Wodka, M.B.A., CPA
Vice President of Business Affairs
Chief Financial Officer

Jim Kimsey, M.A.
Vice President for Human Resources & Legal Affairs
Chief Human Resources Officer

James Moore, Ed.D.
Vice President of College Affairs
Chief Academic Officer

Terri Ackland, M.A.
Academic Dean

Julian Easter, M.S.
Academic Dean

Janice Pratt, Ed. D., M.B.A., C.H.A., C.H.E
Academic Dean

Jennifer Gonzales, M.Ed.
Dean of Enrollment Management

Debbie Foster, M.A.
Assistant Academic Dean

Jani Attebery
Assistant Academic Dean

William F. Brown, M.B.A.
Executive Director of Institutional
Research & Planning

Luisa Ott, CPA, CFE
Executive Director of Accounting
Services/Comptroller

Brandi Clark, M.A.
Executive Director of Human Resources



GENERAL INFORMATION

FALL 2015

Faculty on Campus	August 10-13	M-Th
All College Day		
<i>College Closed 8:00am – 1:00pm</i>	August 10	M
Weekend College Begins	August 14	F
Last Day of Fall Walk-In Registration	August 15	Sat 9- 1pm
Last Day of Fall Online Registration	August 16	Sun.
Weekday & Online Classes Begin	August 17	M
Class Changes/Drop-Add	August 17-24	M - M
Labor Day - <i>College Closed</i>	September 7	M
45 Day Census	September 30	W
Spring Registration Begins (Continues through January 16)	October 5	M
Mid-Term Week	October 2–10	F-Sat
Last Day to Apply for December Graduation	October 12	M
Last Day to Withdraw from Semester Length Classes	October 22	Th
Veteran's Day - <i>College Closed</i>	November 11	W
Thanksgiving Break (No evening classes or college services after 6 pm on Nov. 25 th)	November 26 - 28	Th-Sat
Final Exams	December 4-10	F- Th
Semester Ends	December 10	Th
Grades due in Registrar's Office	December 14	M
Winter Break - <i>College Closed</i>	Dec 21 – Jan. 2	M-Sat.

SPRING 2016

Faculty on Campus	January 12–14	T-Th
Weekend College Begins	January 15	F
Last Day Spring Walk-In Registration	January 16	Sat 9-1pm
Last Day Spring Online Registration	January 18	M
Martin Luther King, Jr. Day <i>College Closed</i>	January 18	M
Weekday & Online Classes Begin	January 19	T
Class Changes/Drop-Add	January 19-26	T-T
President's Day <i>College Closed</i>	February 15	M
Development Day (No classes prior to 6:00 pm)	February 16	T
Last Day to Apply for May Graduation	February 29	M
45 Day Census	March 3	Th
Mid-Term Week	March 4-12	F-Sat
Spring Break - <i>College Closed</i>	March 14-19	M-Sat
Last Day to Withdraw from Semester Length Classes	March 24	Th
Summer/Fall Registration Begins (Continues through August 13)	March 28	M
Final Exams	May 6–12	F-Th
Semester Ends	May 12	Th
Grades due in Registrar's Office	May 16	M
Commencement		
Signal Peak Campus (7 pm)	May 13	F

SUMMER 2016

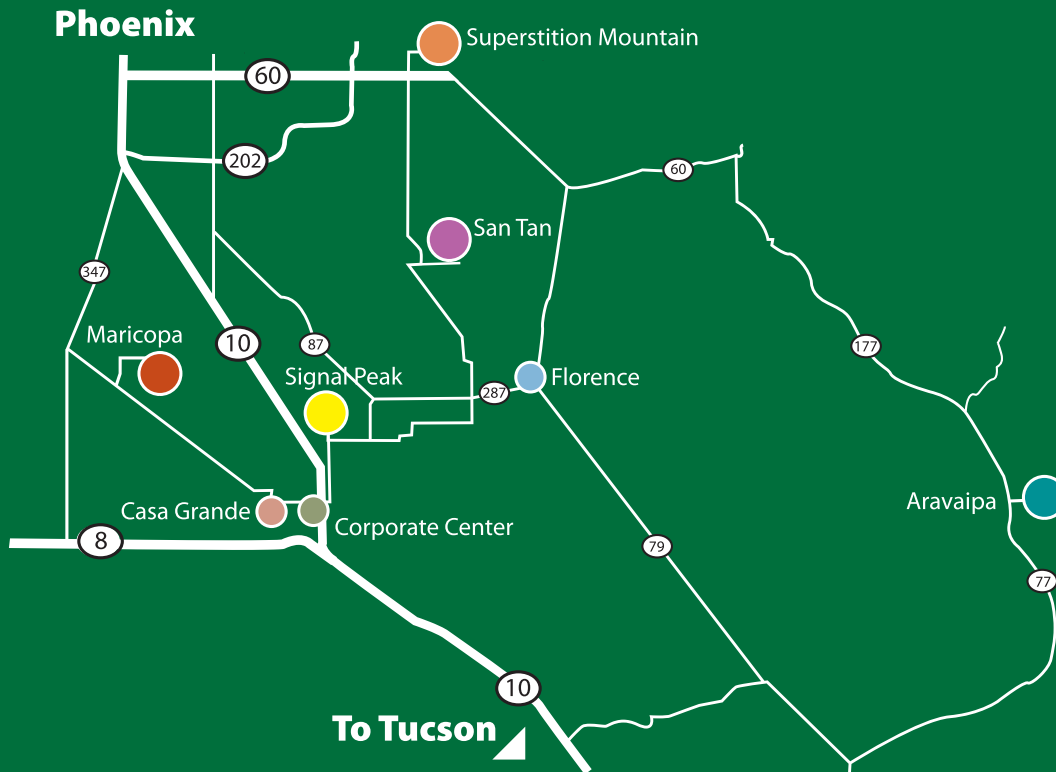
Last Day of Walk-In Registration	May 26	Th
Last Day of Summer Registration	May 30	M
Memorial Day – <i>College Closed</i>	May 30	M
First Summer Session Begins	May 31	T
Class Changes/Add-Drop	May 31 & June 1	T-W
Last Day to Apply for Summer Graduation	June 2	Th
First Five Week Session Ends	June 30	Th
Independence Day – <i>College Closed</i>	July 4	M
Second Summer Session Begins	July 5	T
Class Changes/Add-Drop	July 5-6	T-W
Eight Week Class Session Ends	July 21	Th
Second Five Week Session Ends	August 4	Th
Grades Due in Registrar's Office	August 8	M



Central Arizona College

www.centralaz.edu

800-237-9814 ext. 5111



Campus:



Signal Peak Campus
8470 N. Overfield Rd.
Coolidge, AZ 85128
520-494-5444
800-237-9814



Aravaipa Campus
80440 E. Aravaipa Rd.
Winkelman, AZ 85192
520-357-2800
866-869-6507



Maricopa Campus
17945 N. Regent Drive
Maricopa, AZ 85138
520-494-6400



San Tan Campus
3736 E. Bella Vista Road
San Tan Valley, AZ 85143
480-677-7825
520-494-6725



Superstition Mountain Campus
805 S. Idaho Road
Apache Junction, AZ 85119
480-677-7700

Centers:



Casa Grande Center
1015 E. Florence Blvd.
Casa Grande, AZ 85122
520-494-6050



Corporate Center
(Interstate 10 & Florence Blvd.)
540 N. Camino Mercado
Casa Grande, AZ 85122
520-494-6600



Florence Center
P.O. Box 707
800 E. Butte Avenue
Florence, AZ 85132
520-494-6801

Central Arizona College prohibits discrimination in employment and educational programs based on race, religion, sex, age, disability, national origin, military status, genetic test information, sexual orientation, or gender identity or expression.

Central Arizona College is accredited by the Higher Learning Commission. For information about Central Arizona College's accreditation, you can contact the Higher Learning Commission at 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604-1411, 312-263-0456, info@hlcommission.org, or online at www.ncahlc.org.