

*yavapai*  
COLLEGE

**2018-19  
CATALOG**



# 2018-2019 Catalog Addendum

## About the Addendum

This catalog addendum includes information relating to updates since the release of the 2018-2019 Yavapai College Catalog.

Catalog Item Revised	Description of Revision	Action Taken	Date of Action
AVT Courses	Course Addition	Added AVT 221B	September 13, 2018
<a href="#"><u>Aerospace Science (Airplane/Helicopter/Tech/UAS) - AAS</u></a>	Program Revision	Removed AVT 211C, 212C and 221C from Helicopter Operations Concentration Requirements  Added AVT 221B to Helicopter Operations Concentration Requirements	September 13, 2018
PHI 105	Added Course Attribute	Added SUN#1105 to PHI 105 Introduction to Ethics	October 16, 2018
Associate of Arts	Major added	Major and Elective Studies: Added "Exercise Science/PE-Health" with links	October 22, 2018
MAT 152 & MAT 187	Added duplicate credit restriction to courses	Added "Duplicate credit for MAT 152 and MAT 187 will not be awarded" to MAT 152 & MAT 187 course descriptions effective Spring 2019	November 19, 2018
<a href="#"><u>Arizona General Education Curriculum (AGEC-A)</u></a> <a href="#"><u>Arizona General Education Curriculum (AGEC-B)</u></a> <a href="#"><u>Arizona General Education Curriculum (AGEC-S)</u></a>	Corrected minimum residency hours	Changed minimum hours required for completion of the AGEC certificates within the program descriptions to match policy as stated in the <a href="#"><u>General Degree and Certificate Information</u></a> (Degree & Certificate Requirements #5)	December 12, 2018
Associate of Arts	Major added	Major and Elective Studies: Added "Social Work" with links	January 14, 2019
Associate of Science	Table and Resources added	Major and Elective Studies: Added table with links to Biology, Chemistry, Geology and Physics/Astronomy AZTransfer Major Guides and YC department pages. Added Transfer Resources for information purposes.	January 30, 2019

Yavapai College reserves the right to change, without notice, any materials, information, curriculum, requirements, and regulations published in this catalog addendum.

# About the Catalog

The YC Catalog is the official source of the college's academic programs, courses, policies, and procedures. The catalog should be used as a guide in planning a course of study, however, it does not establish a contractual relationship between the student and the institution. The catalog summarizes the total requirements which the student must presently meet before qualifying for a faculty recommendation to the District Governing Board to award a degree or certificate.

**The catalog does not establish a contractual relationship but it summarizes the total requirements which the student must presently meet before qualifying for a faculty recommendation to the District Governing Board to award a degree or certificate.**

*Yavapai College reserves the right to change, without notice, any materials, information, requirements, regulations, or fees published in this catalog.*

# Campus and Center Locations

## Prescott Campus

1100 East Sheldon Street  
Prescott, Arizona 86301  
Switchboard: 928.445.7300

## Career & Technical Education Center

220 Ruger Road  
Prescott, Arizona 86301  
Reception: 928.776.2002

## Verde Valley Campus

601 Black Hills Drive  
Clarkdale, Arizona 86324  
Reception: 928.634.7501

## Chino Valley Agribusiness & Science

**Technology Center**  
2275 Old Home Manor Way  
P.O. Box 4048  
Chino Valley, Arizona 86323  
Reception: 928.717.7720

## Prescott Valley Center

6955 Panther Path  
Prescott Valley, Arizona 86314  
Reception: 928.717.7911

## Sedona Center

4215 Arts Village Drive  
Sedona, Arizona 86336  
Reception: 928.649.4265

For callers outside the 928 area code, please call 1.800.922.6787

# Affiliation and Accreditation



Yavapai College is accredited by The Higher Learning Commission, [www.ncahlc.org](http://www.ncahlc.org), a commission of the North Central Association of Colleges and Schools (230 South LaSalle Street, Suite 7-500, Chicago, Illinois 60604-1411 Phone: 800.621.7440/312.263.0456).

# Equal Opportunity Statement

Yavapai Community College District, in compliance with state and federal laws and regulations, does not discriminate on the basis of age, race, color, religion, sex, national origin, disability, or veteran status in our admissions, employment, access to educational programs or activities, as required by Title IX of the Education Amendments of 1972, Title VI, and Title VII of the Civil Rights Acts of 1964 as amended; Section 504 of the Rehabilitation Act of 1973 as amended; the Civil Rights Act of 1991; the American Disabilities Act of 1990; Arizonans with Disabilities Act of 1992; and the Age Discrimination in Employment Act of 1967.

Inquiries regarding Yavapai College's equal opportunity policies may be directed to the Yavapai College Human Resources Director at 928.776.2217. Student inquiries regarding Title IX may be directed to the Title IX Coordinator at Yavapai College at 928.776.2211.

# Welcome from the President



Welcome to Yavapai College (YC) and a quality education provided through small class size, personal attention, excellent academic resources, financial aid, caring advisers, and an active campus community. Choosing YC offers options of continuing at four-year college, career prospects, and lifelong learning. YC programs, certificates, and degrees will save you thousands of dollars, and are offered at five (5) campuses/sites throughout Yavapai County as well as outstanding online access.

Our educational programs are rigorous and accessible. We prepare students for entering the career field, transferring to a four-year college, and/or enjoying lifelong learning. As a YC student, you can take pride in the fact that the College and many of our individual programs have been reviewed by outside accrediting associations and received outstanding commendations.

This catalog provides the foundation of the agreement between the College and its students. Reading through it will let you know what you can expect of us as you enroll in our classes and pursue your goals. It also contains a wealth of information that will help you succeed - and student success is why we're here. All of us at YC are committed to providing quality higher learning and cultural resources for our community. I invite you to join the Yavapai College family as we strive to make Yavapai County a premier place to learn, work, and live.

**Penelope (Penny) H. Wills, Ph.D.**

President, Yavapai College

OfficeOfThePresident@yc.edu

## District Governing Board

**Mr. Ray Sigafoos**, Board Chair

**Mr. Steve Irwin**, Board Secretary

**Dr. Connie Harris**, Board Member

**Ms. Deb McCasland**, Board Member

**Dr. Patricia McCarver**, Board Member

## College President

**Dr. Penelope (Penny) Wills**,

B.S., University of Cincinnati

M. Ed., Miami University

Ph.D., Michigan State University

# **Yavapai College Foundation**

**Ensuring Excellence in Education at Yavapai College and Supporting our Communities**

Since 1972 the Yavapai College Foundation (YCF) has been committed to excellence in education and enhancing the opportunities of Yavapai College's students, faculty and local communities. The far-reaching scope of the Foundation is evident through its diverse auxiliary organizations and projects.

As Yavapai County and Yavapai College grow, the need for a strong and financially supportive Foundation has never been greater. There are many ways you can help:

- Give a gift today
- Designate a gift to a specific priority
- Name YCF in your planned gift or will
- Become a Foundation/Auxiliary member
- Volunteer

## **Scholarships**

Over 200 named scholarship funds benefit hundreds of students each year, with more than \$2,000,000 awarded to deserving undergraduates over the last decade.

Yavapai College Foundation, through our auxiliaries and volunteers, support the needs and opportunities in our communities across our county.

## **Volunteer Fundraising Auxiliaries**

### **Friends of Performing Arts**

Supports students in music (both choral and instrumental) and also benefits students in theater and dance. This past year, FOPA assisted performing arts students by funding ten scholarships, as well as contributing to the funding of endowments, which have provided additional scholarships. Our main fundraising effort is the "Pocket Change" program and we also sponsor bistro performances and student recitals at the Performing Arts Center.

### **Friends of the Family Enrichment Center**

A group of individuals and companies dedicated to early childhood development and education. At the FEC, children are learning all the time! Teachers support and challenge them to develop new skills, to think creatively, and to work together to solve problems. FEC's program also provides hands-on teaching experience for Yavapai College students, an invaluable resource for elementary and early childhood education. Each spring the auxiliary supports an event highlighting the learning that takes place in the FEC classroom called Framing the Future Brunch.

### **Friends of the Southwest Wine Center**

Support and raise funds for the Southwest Wine Center located on the Yavapai College Verde Valley Campus. The center will serve as a hub of education, research and rural economic development activity designed to support a young viticulture industry in achieving its potential as a significant US wine producing region. At the core of the center will be five key components: academic programs, student-run vineyard, full-production teaching winery, knowledge gateway and business linkages. FoSWC supports the center through outreach with Adopt-a-Vine and the annual Southwest Wine & Dine in the Vines fall event.

Join and/or donate to YCF @ [www.yc.edu/foundation](http://www.yc.edu/foundation).

## **Executive Committee**

**Don Michelman**, President

**Perry Massie**, Immediate Past President

**Valerie Wood**, First Vice President

**Cindy Nyman**, Second Vice President

**Phil Winkelstern**, Treasurer

**Mike Rethman**, Secretary

**Dr. Penelope Wills**, Yavapai College President

**Paul Kirchgraber**, Executive Director, Yavapai College Foundation

# College Mission

## Vision

Yavapai College makes our community a premier place to learn, work, and live.

## Mission

The Mission of Yavapai College is to provide quality higher learning and cultural resources for the diverse populations of Yavapai County.

# District Governing Board Ends

Yavapai College exists so communities within Yavapai County have access to and are equipped with the knowledge and skills to improve quality of life. The College will achieve these results at a justifiable cost.

## Education Ends

Students achieve their educational goals at an affordable price. This is the first priority.

- *Job Seeker Ends*  
Job seekers have the qualifications, skills, and abilities to succeed.
- *Student Ends*  
Students seeking transfer have the qualifications, skills, and abilities for success at their next educational institution.
- *Lifelong Learners Ends*  
Lifelong learners have access to a variety of learning opportunities.

## Economic Ends

Communities in Yavapai County are supported in their efforts to lead economic development, with an emphasis on generating and sustaining economic base jobs. This is the second priority.

## Community Ends

Yavapai County residents have access to social and cultural opportunities. This is the third priority.

# College Values

## • Learning

Yavapai College values learning and an environment where students are engaged in their educational endeavors. We take pride in our campuses and centers throughout Yavapai County. Our facilities provide a safe and supportive environment where students can learn, and our community can share in the benefit of a cultural center within reach.

## • Scholarship

Yavapai College values scholarship. We value an educated and experienced faculty and staff who foster and encourage the spirit of inquiry and expression. We value education not merely as a means to an end, but as a lifelong joy and endeavor.

## • Stewardship

Yavapai College values responsible resource management and affordable learning opportunities. We appreciate our obligation to budget and allocate fiscal and human resources in the best interests of our students and community.

## • Diversity

Yavapai College values the diversity within our community and the rich cultures of Yavapai County.

# Strategic Initiatives 2015-2020

1. Student Success
2. Economic Responsiveness
3. Engaged Community
4. Organizational Development
5. Fiscal Stewardship

View details about the Yavapai College Strategic Plan 2015-2020 at <https://www.yc.edu/v5content/strategic-planning/>

# 2018/19 Academic Calendar

## August 2018

Su	M	T	W	Th	F	Sa
					1	2
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

## September 2018

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23	24	25	26	27	28	29
30						

## October 2018

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21	22	23	24	25	26	27
28	29	30	31			

## November 2018

Su	M	T	W	Th	F	Sa
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## December 2018

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23	24	25	26	27	28	29
30	31					

## January 2019

Su	M	T	W	Th	F	Sa
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

## February 2019

Su	M	T	W	Th	F	Sa
					1	2
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17	18	19	20	21	22	23
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## March 2019

Su	M	T	W	Th	F	Sa
					1	2
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17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

## April 2019

Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

## May 2019

Su	M	T	W	Th	F	Sa
					1	
5	6	7	8	9	10	11
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19	20	21	22	23	24	25
26	27	28	29	30	31	

## June 2019

Su	M	T	W	Th	F	Sa
					1	
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

## July 2019

Su	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

# Academic Calendar

## Fall Semester 2018: August 20 - December 14

Convocation	August 13
Faculty Activities Week	August 13-17
Fall Regular Semester Begins	August 20
Labor Day Holiday (no classes, offices closed)	September 3
Veterans Day (no classes, offices closed)	November 12
Thanksgiving Holiday	November 21-23
Northern Arizona Regional Training Academy Completion Ceremony	December 13
Fall Regular Semester Ends at 5:00 PM	December 14
Nursing Pinning Ceremony	December 14
Final Grades Due to Registrar	December 19
Offices Closed - Holiday Break	Dec 22-Jan 6

## Spring Semester 2019: January 14 - May 10

Faculty Activities Week	January 7-11
Convocation	January 9
Spring Regular Semester Begins	January 14
Martin Luther King Jr. Day Holiday (no classes, offices closed)	January 21
Spring Break (no classes, offices closed)	March 10-16
Spring Regular Semester Ends at 3:00 PM	May 10
Verde Valley Graduation	May 10
Nursing Pinning Ceremony	May 11
Prescott Graduation	May 11
Final Grades Due to Registrar	May 15
Northern Arizona Regional Training Academy Completion Ceremony	May 23
Offices Closed - Memorial Day	May 27

## Summer Session 2019: June 3 - July 26

Summer Session begins	June 3
Independence Day Observed (no classes, offices closed)	July 4
Summer Session Ends	July 26
Final Grades Due to Registrar	July 31

# Academic Support and Support Services

## Admissions

Yavapai College invites qualified individuals who demonstrate evidence of potential success as adult learners in an institution of post-secondary higher education to seek admission.

In accordance with Arizona state law, Revised Statutes 15-1805.01 and 15-1821, Yavapai College may admit:

A. A person who satisfies any one of the following criteria:

1. Is a graduate of a high school that is accredited by a regional accrediting association as defined by the United States office of education or approved by a state board of education or other appropriate state educational agency.
2. Has a high school certificate of equivalency.
3. Is at least eighteen years of age and demonstrates evidence of potential success in the community college.
4. Is a student transferring from another regionally accredited college or university in good standing (2.0 cumulative GPA).

B. A person who is under 18 years of age and has not satisfied the requirements above may be admitted upon completion of course pre-requisites and achievement of one of the following:

1. A composite score of 93 or more on the preliminary Scholastic Aptitude Test (PSAT).
2. A composite score of 930 or more on the Scholastic Aptitude Test (SAT).
3. A composite score of 22 or more on the American College Test (ACT).
4. A passing score on the relevant portions of the current state test(s) required for Arizona standards measurement or graduation (AIMS or replacement).
5. The completion of a college placement test designated by the College district that indicates the student is at the appropriate college level for the course.

*A person under 18 who wishes to enroll in a course for which there is no prerequisite nor applicable placement test may be admitted on an individual basis with the approval of college officials.*

C. Homeschooled students are exempt from subsection B of this policy.

D. Students who enroll in vocational education courses may be admitted on an individual basis with the approval of college officials if the student meets the established requirements of the courses for which the student enrolls and the college officials determine that the student's admission is in the best interest of the student.

Yavapai College reserves the right to restrict enrollment.

Admission to Yavapai College does not guarantee admission to specific programs.

Specialized application materials may be required for certain programs, from non-citizens of the United States, from students appealing a residency classification, and in related circumstances.

Yavapai College may admit students according to intergovernmental agreement, contract, program participation, or College-approved instruction.

## Discover Yavapai Information Sessions

Discover Yavapai Programs are designed for students and families who are exploring their options for college. The program provides general information about Yavapai College, programs, and services. The agenda includes:

- General information sessions about admissions, cost of attendance, degree programs, financial aid and residence life
- Campus tours, led by Student Ambassadors.

This event is reservation only. To sign up, please go to [www.yc.edu/tours](http://www.yc.edu/tours).

Questions? Contact the Answer Center at 928.776.2149 or 928.634.6510

## Campus Tours

Yavapai College offers daily campus tours to prospective students and their guests. Take a campus tour and learn about our degree and certificate offerings, support services and get connected to the resources that will set you up for success! Visit [www.yc.edu/tours](http://www.yc.edu/tours) to sign up for a tour with a Yavapai College Student Ambassador. Group tours are also available for local high school, middle school, and elementary school students. Group tours must be scheduled at least 2 weeks prior to the date you wish you visit. For more information, please contact the Answer Center at 928-776-2149 or 928-634-6510.

## **Residency Determination**

Classification of state residency for tuition purposes at Yavapai College is governed by state law. The information below establishes the criteria for Arizona residency. Students who are classified as non-residents will be assessed out-of-state fees when registering for classes.

### **Definition of Terms**

1. "Armed Forces of the United States" means the Army, the Navy, the Air Force, the Marine Corps, the Coast Guard, the commissioned corps of the United States Public Health Service and the National Oceanographic and Atmospheric Association.
2. "Continuous attendance" means enrollment at an educational institution in this state as a full-time student, as such term is defined by the governing body of the educational institution, for a normal academic year since the beginning of the period for which continuous attendance is claimed. Such person need not attend summer sessions in order to maintain continuous attendance.
3. "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.
4. "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.
5. "Parent" means a person's father or mother, or custodial parent, or if there is no surviving parent or the whereabouts of the parents are unknown, then a guardian of an unemancipated person if there are not circumstances indicating that such guardianship was created primarily for the purpose of conferring the status of an in-state student on such unemancipated person.

### **In-State Student Status**

- A. Except as otherwise provided in this article no person having a domicile elsewhere than in this state is eligible for classification as an in-state student for tuition purposes.
- B. A person is not entitled to classification as an in-state student until the person is domiciled in this state for one year, except that a person whose domicile is in this state is entitled to classification as an in-state student if the person meets one of the following requirements:
  1. The person's parent's domicile is in this state, and the parent is entitled to claim the person as an exemption for state and federal tax purposes.
  2. The person is an employee of an employer which transferred the person to this state for employment purposes or the person is the spouse of such employee.
  3. The person is an employee of a school district in this state and is under contract to teach on a full-time basis, or is employed as a full-time non-certified classroom aide, at a school within that school district. For purposes of this paragraph, the person is eligible for classification as an in-state student only for courses necessary to complete the requirements for certification by the state board of education to teach in a school district in this state. No member of the person's family is eligible for classification as an in-state student if the person is eligible for classification as an in-state student pursuant to this paragraph.
- C. The domicile of an unemancipated person is that of such person's parent.
- D. Any unemancipated person who remains in this state when such person's parent, who had been domiciled in this state, removes from this state is entitled to classification as an in-state student until attainment of the degree for which currently enrolled, so long as such person maintains continuous attendance.
- E. A person who is a member of the armed forces of the United States and who is stationed in this state pursuant to military orders or who is the spouse or a dependent child as defined in section 43-1001 of a person who is a member of the armed forces of the United States and who is stationed in this state pursuant to military orders is entitled to classification as an in-state student. The student, while in continuous attendance toward the degree for which currently enrolled, does not lose in-state student classification.
- F. A person who is a member of the armed forces of the United States stationed in this state pursuant to military orders or the spouse or a dependent as defined in section 43-1001 of a member of the armed forces of the United States is entitled to classification as an in-state student if the member of the armed forces has claimed this state as the person's state of legal residence for at least twelve consecutive months before the member of the armed forces, spouse or dependent enrolls in a university under the jurisdiction of the Arizona board of regents or a community college under the jurisdiction of a community college district governing board. For purposes of this subsection, the requirement that a person be domiciled in this state for one year before enrollment to qualify for in-state student classification does not apply.
- G. A person who is honorably discharged from the armed forces of the United States shall be granted immediate classification as an in-state student on honorable discharge from the armed forces and, while in continuous attendance toward the degree for which currently enrolled, does not lose in-state student classification if the person has met all of the following requirements:
  1. Declared Arizona as the person's legal residence with the person's branch of service at least one year prior to discharge from the armed forces.

2. Demonstrated objective evidence of intent to be a resident of Arizona which, for the purposes of this section, includes at least one of the following:
  - a. An Arizona driver's license
  - b. Arizona motor vehicle registration
  - c. Employment history in Arizona
  - d. Arizona voter registration
  - e. Transfer of major banking services to Arizona
  - f. Change of permanent address on all pertinent records
  - g. Other materials of whatever kind or source relevant to domicile or residency status
3. Filed an Arizona income tax return with the Department of Revenue during the previous tax year.

Please direct any questions regarding residency status to the Answer Center: 928.776.2149.

## **County Residency**

Arizona residents from counties in which there is no established community college district (Apache and Greenlee) may enroll in credit classes with Yavapai College without payment of out-of-county charges, if the student presents a notarized Arizona Out-of-County Affidavit stating that the individual has resided in the county for at least 50 days prior to the 1<sup>st</sup> day of classes. The student still is responsible for payment of regular tuition and fees.

## **Western Undergraduate Exchange Program Reduced Tuition**

Yavapai College participates in the Western Undergraduate Exchange Program (WUE), a program of the Western Interstate Commission for Higher Education (WICHE). Residents of eligible states (currently Alaska, California, Colorado, Hawaii, Idaho, Montana, North Dakota, New Mexico, Nevada, Oregon, South Dakota, Utah, Washington and Wyoming) that enroll in any of Yavapai College's WUE-eligible programs in seven (7) credit hours or more will pay a reduced out-of-state tuition. See [www.yc.edu/tuition](http://www.yc.edu/tuition) for current rates and exempt programs. Time enrolled under WUE status does not count toward establishing Arizona residency for tuition purposes. For additional information, contact the Answer Center at 928.776.2149.

## **International Students**

To qualify for admission as an international student, one must:

- be a high school graduate
- demonstrate proficiency in the English language with a score of 525 or higher on the paper Test of English as a Foreign Language (TOEFL) exam or a score of 193 on the computer-based TOEFL, or a score of 70 on the internet-based (iBT) TOEFL
- have U.S. health insurance coverage which includes repatriation and medical evacuation clauses (this can be purchased through Yavapai College)
- certify that he/she has adequate financial resources to be self-supporting while attending Yavapai College
- complete application forms and submit in paper form to Admissions, 1100 E. Sheldon St., Prescott, AZ 86301. Visit [www.yc.edu/Registration/InternationalStudents](http://www.yc.edu/Registration/InternationalStudents) for application forms and additional information
- Admitted international students are required to enroll for a full-time course load (minimum of 12 semester credits) each Fall and Spring, as well as meet with an academic advisor each semester

## **Incoming Transfer Students**

Students who have attended prior colleges should indicate this on the admission application, and provide Yavapai College with an official transcript of all work completed. Transcripts will be evaluated to determine how much credit will be granted for transfer courses toward satisfying Yavapai College degree and certificate requirements.

Yavapai College only accepts credits from regionally accredited institutions on a credit-unit-for-credit-unit basis (adjusted for semester/quarter terms). Course equivalencies are established based on alignment of the course description and learning outcomes. Only courses 100-level or above with a grade of "C" or better will be considered for transfer credit. Yavapai College accepts only transfer credits, no grade point averages.

# **Registering for Classes**

## **Registration**

The College regards a student's registration in classes as a commitment on his/her part to comply with all College regulations. It is the student's responsibility to read the catalog and understand these regulations.

Students register for classes via secure log in at [www.yc.edu](http://www.yc.edu). Students who do not have approved financial aid must pay all fees at the time of registration. Detailed information regarding registering (dates, fees, course availability, etc.) is published online each semester.

Degree and certificate seeking students should meet with an academic advisor prior to each semester to review degree requirements, prerequisites, and course selection.

Students must maintain current address and other personal information in myYC portal each semester. It is important to keep a current address on file and it is required for students to monitor their College assigned email address in order to receive all official correspondence.

Yavapai College reserves the right to restrict enrollment in classes and/or programs when educational, contractual, legal, or safety obligations warrant such restrictions.

## **Changes in Registration (Add, Drop & Withdraw)**

### **Add/Drop/Withdraw Procedures**

Students may add, drop and withdraw from classes during designated periods each term via secure log in at [www.yc.edu](http://www.yc.edu).

A student-initiated withdraw prior to the deadline will result in a "W" posted to the permanent record. An administrative withdrawal will be noted with a "Y."

For deadlines and effects of changes, see [www.yc.edu/registrar/calendars](http://www.yc.edu/registrar/calendars).

It is strongly recommended that students see an academic advisor prior to a complete withdrawal from the College.

## **College Tuition, Fees and Fee Refunds**

### **Tuition and Fees**

Tuition and fees are determined annually and are approved by the College Governing Board and State Board of Directors for Community Colleges of Arizona. The cost of attending classes at Yavapai College is based on the number and type of credit hours taken. Tuition and fees are subject to change. For the most up-to-date information: [www.yc.edu/tuition](http://www.yc.edu/tuition)

Tuition and fees are generally due at the time of registration. It is not possible to enroll in classes if the student owes money to the college for unpaid tuition and fees or fines (examples: library fines, parking violations, and damage to college property).

### **Refunds**

Refunds will be issued to students who drop classes during the refund period. The refund policy applies to all tuition and fees. See [www.yc.edu/registrar/calendars](http://www.yc.edu/registrar/calendars).

## **Attendance Policy**

Yavapai College offers courses in a variety of delivery formats. Students are expected to attend classes and/or actively participate in all credit courses regardless of the delivery method. All course syllabi will state attendance and class participation requirements. Syllabi will also define any consequences for not adhering to attendance and/or participation requirements. The course calendar must identify assignments that require student participation in class activities or due dates for course assignments.

## **Student Responsibilities**

A student who will be absent for any reason must contact the instructor. A student who expects to be absent for athletic travel, a field trip, or any other activity scheduled in advance must make prior arrangements with the instructor concerning makeup work.

## **Visitors and Guests in Class**

An enrolled student may occasionally bring a guest to class, upon permission of the instructor. Guests who wish to visit frequently will be denied entrance to the class unless they register officially for the class. Safety considerations or disruption of instruction may require that guests not be permitted to attend a class.

## **Student E-Mail Accounts**

Yavapai College requires enrolled students to have an e-mail address to which official College communications can be sent. In the best interest of effective communications management, this address will reside on the College maintained e-mail system. Students may elect to forward their e-mail to an address different from their official Yavapai College account, but these students assume full responsibility for reading e-mail at the forwarded location. *Students are expected to check their Yavapai College e-mail account, or the account to which their Yavapai College e-mail is forwarded, prior to the first class meeting and at least once a week during the semester.* If you have questions regarding your student e-mail account, contact the Yavapai College Help Desk at 928.776.2168 or 800.922.6787 X2168.

## **Transcripts**

Transcripts are permanent academic records released by written consent (signature) of the student.

- **Order online - cost is \$7.25 per transcript**
  - Current students: login [www.yc.edu-My Services/Students/Request My Official Transcripts](http://www.yc.edu-My Services/Students/Request My Official Transcripts)
  - Former students: [www.parchment.com](http://www.parchment.com)
- **Order by mail - cost is \$10.00 per transcript**  
If ordering by mail, the written request must include the student's signature, current mailing address and phone, and must identify where the transcript is sent. A check or money order must be included for \$10 per transcript requested.  
*Yavapai College Office of the Registrar  
1100 E. Sheldon St.  
Prescott, AZ 86301*
- **Order in person at the Prescott Campus or Verde Campus - cost is \$10.00 per transcript**
  - Complete a transcript request and pay \$10 to the cashier.

Students who have completed work at other institutions and wish to apply credits toward their Yavapai College degree or certificate must have official transcripts sent to the Office of the Registrar at the address above. Transfer students should meet with an academic advisor to achieve maximum benefit when establishing an education plan. Students receiving veteran education benefits are required by VA regulations to submit official transcripts from all colleges, universities, technical schools, non-accredited institutions and military training.

## **Student Holds**

Holds may be placed on student records for outstanding obligations to the college. A student may not be able to enroll in classes, obtain grade reports, obtain official transcripts, or receive an earned degree or certificate until any holds placed on the record have been cleared. Examples of student holds are:

- Academic probation or suspension
- Bad or returned check
- Unpaid fees such as library fines
- Disciplinary holds for student misconduct
- Financial aid or student loan holds

Students can determine the originator of the hold via secure log in at [www.yc.edu/MyServices/Students/ViewHolds](http://www.yc.edu/MyServices/Students/ViewHolds).

## Methods of Class Delivery

Yavapai College offers a variety of class delivery and learning strategies to meet the needs of a diverse student population, as described below:

Delivery Types	Description
<b>Activity Based</b>	Physical activity and participation required.
<b>Apprenticeship</b>	Structured field experiences within specific academic disciplines or technical areas. These experiences enable students to explore potential careers and apply knowledge gained in the classroom while refining their technical skills and gaining relevant experience in the workplace
<b>Classroom Based</b>	Traditional classroom delivery.
<b>Classroom and Web (Hybrid)</b>	Courses that blend face-to-face, in-class sessions with web-based activities or virtual classes. In a hybrid course, a significant part of the course learning is online and as a result, the amount of classroom seat-time is reduced.
<b>Computer Based In-Classroom</b>	Traditional classroom delivery with the regular use of a computer required.
<b>Directed Research</b>	Faculty or mentor directed student research in an area of current scientific investigation. Lab or fieldwork with the object of contributing to the professional body of scientific knowledge. Includes data collection, analysis and written and oral presentation.
<b>Independent Study Classes</b>	Supervised special project which is undertaken with the direction of an assigned faculty member. Certain requirements must be met. Consult with an academic advisor for more information.
<b>Individually Paced Instruction (IPI)</b>	Classes which are usually taught in an open lab setting with faculty guidance, and in which students work at their own pace to complete course requirements. Students are expected to exhibit weekly progress and to follow the start/end dates specified on the class schedule.
<b>Internships</b>	Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Consult with an academic advisor for more information.

<b>Online</b>	Courses are delivered entirely on the web and have no in-person meetings. Canvas is the official delivery system for online courses at Yavapai College. Students communicate with the instructor through discussion boards, chat rooms and e-mail. Students can access their course material and assignments by logging into their portal. Some online classes may require proctored exams. Additional fees may be charged for proctored exams.
<b>Open Entry/Closed Exit</b>	Proficiency-based instruction where students work at their own pace in an open lab setting. Students may register at various times and must complete classes by an established deadline. Delivery types may vary.
<b>Private Lesson</b>	Individually scheduled classes, typically music.
<b>Video Conferencing</b>	Courses held in one location with full interaction to one or multiple other locations. Via the use of fixed installation cameras, screens, microphones and interactive technology participants at one location can see, hear, and interact with instructors, facilitators, or participants at other locations.
<b>WebLIVE</b>	WebLIVE is a web-conferencing format using a tool called Zoom. A link to the live required classroom activity will be provided by the instructor and/or available in your Canvas course. Students will need a computer with high-speed Internet access, web camera and a microphone.

## Student Success: A Shared Responsibility

Becoming a successful student involves taking responsibility for your own experience at Yavapai College. Your college success can be measured not only in terms of acquiring skills and knowledge, but also through personal growth and development. Certain factors will contribute to your success, such as:

- Having clearly defined goals
- Knowing your skill levels
- Being aware of campus resources to support your efforts
- Recognizing that you are continually changing and growing as a person

Student Development staff share in the responsibility for your success by fostering an environment where your needs in each of these areas can be addressed. Working with our team of support personnel and other College resources, you will get the maximum benefit from your experience at Yavapai College. Establish your relationships with Student Development staff members early in your college career. We are committed to sharing in the responsibility for your success.

# **Skills Assessment, Advisement and Placement Policy**

Yavapai College believes that correct course placement is a powerful factor in student retention and success. Therefore, the college requires assessment of competency in reading, writing and mathematics.

## **Skills Assessment**

We want students to be successful at Yavapai College. Enrolling in courses that are appropriate to the student's level of preparation is an important step on the road to success.

The skills assessment helps students to identify strengths as well as where development is required to provide a strong foundation prior to enrolling in college-level courses. The results will guide students in the right direction to complete their educational goals without taking courses which they don't need, and/or taking courses for which they are not prepared.

The skills assessment is not an admissions test. When students meet with their academic advisor, they will also review other evidence of college readiness, such as high school transcripts, ACT or SAT scores, and copies of transcripts from other colleges/universities that the student has attended. **Attention Veterans:** Veterans seeking to improve their skills assessment scores can contact the TRIO Veterans Upward Bound Program which is designed to prepare veterans before enrolling in college courses. Visit [www.yc.edu/vub](http://www.yc.edu/vub) for more details.

## **Reading Proficiency**

All students enrolling in any course on the General Education Course list or any course that has designated the prerequisite of Reading Proficiency must demonstrate proficiency in reading by scoring at least 53 on the ACCUPLACER Reading Comprehension placement assessment, scoring at least 17 on the ACT reading assessment, or 400/22 on the SAT critical reading assessment. Students scoring below these levels will be required to complete ENG 085 before enrolling in these courses. It is strongly recommended that students enroll in ENG 140 if they score between 53 and 69 on the ACCUPLACER Reading Comprehension placement assessment.

## **Math and English Skills Assessment**

Students who intend to take English, math or a general education course for the first time are required to take the English and math skills assessment prior to enrollment. Students should begin in the course(s) in which they place in their first semester and continue to enroll in the course in which they qualify until the college requirements are satisfied. See specific degrees for applicable course sequencing.

## **Academic Success Advising and Counseling**

Academic Success Advising and Counseling is that and so much more! Students start their journey with an assigned Success Advisor to help them navigate their time at Yavapai College. From the start, students will have the support they need to understand their next steps, from completing their financial aid file, identifying academic and career goals in order to select the best program, or helping research the local job market or university for transfer. Success Advisors help students create a plan to completion and beyond. Advisors also assist students in adjusting to college life and in developing skills for success as a student's go-to resource to work through issues, providing information, resources, and referrals. Success Advisors provide support to students during their entire college experience.

Academic Advising is required for students who meet any of the following criteria:

- Students participating in the First Year Academy (FYA)
- Student athletes
- International students
- Majors in nursing, paramedicine, aviation, radiologic technology
- Financial aid recipients who have need to file an appeal
- Students on academic probation
- Students seeking to take more than 18 credits in one semester

Students in these categories who wish to register must first consult with an academic advisor. To request an appointment with an academic advisor, students can call 928.776.2106 or 928.634.6510. Additional information can be found at [www.yc.edu/advisor](http://www.yc.edu/advisor) or can be requested by email: [academic.advising@yc.edu](mailto:academic.advising@yc.edu). Advising services are available at the Prescott, Verde Valley, Career and Technical Education Center, Chino Valley and Prescott Valley.

## **Counseling Services**

Students sometimes find it difficult to adjust to being a college student whether they are commuting or living on campus. Yavapai College wants to assist students who are experiencing difficulty with college life adjustments through local resources and referrals. Please visit [www.yc.edu/personalcounseling](http://www.yc.edu/personalcounseling) for more information.

## **Internships**

Internships facilitate learning beyond the classroom through supervised field experiences within specific academic disciplines or technical areas. These experiences enable students to explore potential careers and apply knowledge gained in the classroom while refining the technical skills and gaining relevant experience in the workplace. Internship credit is available at Yavapai College on a limited basis, and only if a student is enrolled in a program that requires an internship for program completion.

Specific requirements must be met before students are approved for internships. See [www.yc.edu/internships](http://www.yc.edu/internships) for requirement information. Unless noted otherwise, internships are graded as S/U only.

## **SUN (Shared Unique Number) System**

The Shared Unique Number (SUN) System is a college course numbering system designed to help Arizona students plan their education and ensure successful transfer of course credits. The SUN System is being implemented in phases, initially including the AGEC and major courses having direct equivalencies at all three Arizona universities and the community college districts which offer them. Institutions are reviewing additional courses for inclusion in the SUN System.

- SUN courses are identified by a three-letter prefix, four-digit course number, and a SUN icon. These courses are labeled in university and community college catalogs, schedules, and websites, making it easy and immediate for students to find transferable courses.
- SUN courses are a subset of the tens of thousands of college courses that transfer among Arizona's colleges and universities. These courses and their equivalencies can be found in the searchable Course Equivalency Guide on AZTransfer.com.

Because each student has a unique academic plan, they are encouraged to consult with an academic advisor prior to enrollment. For more information about SUN, including a list of SUN courses, visit [www.aztransfer.com/sun](http://www.aztransfer.com/sun).

# **Financial Aid**

## **Types of Aid**

Our Financial Aid Office offers many opportunities from a variety of sources to help our students with their educational expenses. Federal aid from the Department of Education, like the Pell Grant, is the greatest source of aid. In addition, Yavapai College offers scholarships (separate application required). Details about federal and state aid, and YC Institutional and Foundation Scholarship programs can be found on the web at [www.yc.edu/financialaid](http://www.yc.edu/financialaid).

## **Ways to classify different types of financial aid:**

Financial Aid you don't have to repay:

- Federal and State Grants
- YC Institutional Scholarships
- YC Foundation Scholarships
- Private and Corporate Scholarships
- Student Employment
- Native American Tribal Grants
- Veteran's Education Benefits

Financial Aid you **do** repay:

- Federal Subsidized and Unsubsidized Direct Student Loan
- Federal Direct Plus Parent Loan for Undergraduate Students
- Interest-free Online Payment Plan
- Private/Alternative Student Loans

## **General Eligibility Requirements for Federal Financial Aid**

### **Eligibility requirements necessitate that you:**

- Be a U.S. citizen or eligible non-citizen with a valid Social Security Number
- Demonstrate that you are qualified to obtain a post-secondary education by having a high school diploma, a General Education Development (GED) Certificate or home-schooled completion equivalent
- Enroll in an eligible program as a regular student seeking a degree or certificate
- Register (or have registered) with the Selective Service if you're a male between 18 and 25
- Be making satisfactory academic progress
- Cannot be convicted of a drug related felony while receiving financial aid

## **How to Apply for Federal Aid**

The college uses the Free Application for Federal Student Aid (FAFSA) as its application for federal financial aid programs.

## **The Process**

- Apply for a FSA ID at: <https://fsaid.ed.gov>.
- Complete and submit the 2018-19 FAFSA (to the Department of Education). It's available online at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Be sure to include the Yavapai College code: 001079. The 2019-20 FAFSA will be available after October 1.
- Check your YC email frequently. You will be notified by email when we receive your FAFSA results instructing you to check your eligibility requirements by logging into the YC website, clicking on My Services, Students, and My Financial Aid.
- Have an award posted stating how much aid per semester, if any, that you will receive.
- The award amount is applied to any outstanding funds you may still owe the college; you may then receive a disbursement for any remaining credit balance.

## **Satisfactory Academic Progress Required for Federal Aid Recipients**

Federal regulations require that financial aid students maintain Satisfactory Academic Progress (SAP) toward an eligible degree or certificate program. SAP Standards include: Minimum cumulative grade point average of 2.0; Rate of Progression 66% or greater; Maximum time frame for completion of a degree or certificate. SAP is reviewed at the end of each semester to determine financial aid

eligibility for the upcoming semester. SAP is evaluated on a student's entire academic history regardless of whether financial aid was received elsewhere. Please visit the Financial Aid website at: [www.yc.edu/v5content/financial-aid/policies.htm](http://www.yc.edu/v5content/financial-aid/policies.htm).

## **Withdrawal/Repayment Policy for Federal Financial Aid Recipients**

Students who withdraw from ALL of their classes will have their financial aid reevaluated to determine the amount of aid that has been earned, and any unearned aid will be required to be paid back. Please note that this repayment calculation will be determined for students who follow official withdrawal procedures as well as for students who stop attending classes. For further details consult your financial aid advisor and/or the Withdrawal/Repayment Policy for Federal Financial aid at: [www.yc.edu/v5content/financial-aid/policies.htm](http://www.yc.edu/v5content/financial-aid/policies.htm).

## **Student Employment Services**

Student employees gain crucial preparation for the competitive job market through career-enhancing opportunities. To be eligible for on-campus jobs, students must be currently enrolled in at least six credit hours and must complete a FAFSA application.

Students can find on-campus jobs, community service positions in area schools, and special Community Service Federal Work-Study jobs off campus, all of which give students an opportunity to earn money and to gain valuable skills in a number of career-related environments.

For more information regarding student employment, go to: [www.yc.edu/studentjobs](http://www.yc.edu/studentjobs), email [studentemployment@yc.edu](mailto:studentemployment@yc.edu) or call the Student Employment office at 928.776.2081.

## **Veterans Education & Transition Services**

Individuals eligible to receive Veterans Administration (VA) education benefits including veterans, reserve and National Guard members, or dependents must complete and submit all required VA and Yavapai College documents to the Veteran Education Benefits Office. Processing may take up to eight weeks, so early planning and class registration is highly recommended.

Students who have submitted the required documents for VA education benefits are eligible to sign up for an interest-free payment plan to defer the cost of tuition, fees and books. Students eligible for VA education benefits may also be eligible for other types of financial aid such as Pell Grant and scholarships and are encouraged to apply through the Free Application for Federal Student Aid (FAFSA). Once initial required documents are submitted, a VA education benefits request form must be submitted each semester thereafter. Instructions pertaining to new and continuing VA education requests are available at [www.yc.edu/veterans](http://www.yc.edu/veterans).

To receive VA education benefits, students must:

- Only enroll in applicable classes which satisfy declared program requirements at Yavapai College. Please note that special conditions in accordance with VA and state regulations may be applicable to specific programs.
- Request official transcripts from all colleges, universities, technical schools, military training, and non-accredited institutions. Official transcripts must be sent directly to Yavapai College, Enrollment Services, 1100 E. Sheldon Street, Prescott, Arizona, 86301.
- Maintain good academic standing in accordance with Yavapai College Standards of Academic Progress.
- Be aware that veteran education benefits may be required to be repaid to the VA for repeated courses or courses from which the student withdraws.
- Immediately notify the Veteran Education Benefits Office of any enrollment changes to avoid debt owed to the VA. Be aware that varying course lengths can affect veteran education benefit payments. Contact the Veterans Education Benefits Office to clarify how course lengths are required to be reported to the VA.

TRIO Veterans Upward Bound is available to eligible veterans seeking to refresh or improve their academic skills *before enrolling in college courses*. Free college prep courses include mathematics through pre-calculus, writing, reading, study skills, computers, and other core academic subjects. Visit the TRIO VUB website at [www.yc.edu/vub](http://www.yc.edu/vub) for more details.

Section 702 of the Veterans Access, Choice and Accountability Act of 2014 enables covered individuals (veterans and/or family members) to be eligible for in-state tuition rates. Visit the VA's website at:

[http://benefits.va.gov/gibill/post911\\_residentraterequirements.asp](http://benefits.va.gov/gibill/post911_residentraterequirements.asp)

## **Yavapai College Scholarship Opportunities**

Yavapai College offers a wide variety of scholarships based on athletics, academic performance, ethnic background, financial need, area of study, or other criteria. Scholarship awards range from \$100 to \$4000. To apply for the majority of scholarships, only one application form is required. The YC Foundation application is available beginning January 5th by logging onto the YC website and selecting My Services, Students, My Financial Aid. The deadline is April 1. For detailed information regarding Yavapai College and other scholarship opportunities, students may visit our website at [www.yc.edu/financialaid](http://www.yc.edu/financialaid). For additional private scholarship information, visit [www.fastweb.com](http://www.fastweb.com) and [www.saltmoney.org](http://www.saltmoney.org).

## **Payment Plan**

Yavapai College offers an interest-free, automated monthly payment option to help you meet your education expenses. There is a non-refundable \$25 application fee required per semester. Payments can be set up through automatic withdrawals from your checking or savings account or can be charged to a credit card account. This is available by logging onto the YC website and selecting My Service, Students, My Bills and Payments, Payment Plans. Contact the Business Office or Financial Aid Office for additional details: 928.776.2124.

## **Learning Centers**

The Mission of the Learning Center is to provide individualized attention in a supportive and comfortable learning environment, which nurtures academic independence and success for all students.

The Learning Centers provide a variety of resources, services, and programs designed to promote the academic success of all students by providing:

- Drop-in tutoring for students enrolled in math, biology, chemistry, physics, Spanish and English courses as well as any course requiring writing assignments. Tutoring for other subjects may be available on request
- Supplemental Instruction (SI)
- Online services include: an Online Writing Tutor, Ask-A-Tutor email tutoring service, and Skype a tutor
- Computer stations with networked software programs for completing academic coursework
- Adaptive computers and equipment for students with disabilities
- Private and group study areas available by reservation
- Course resources, current textbooks, calculators, and headphones available for use while in the centers
- A variety of workshops on test-taking tips, study skills, and targeted study groups available throughout the semester
- WEPA print stations

Visit the Learning Center website and Facebook pages for details on hours of operation, tutoring and workshop schedules, directions on how to access online tutoring services, study tips, and other resources. [www.yc.edu/learningcenter](http://www.yc.edu/learningcenter).

## **Disability Resources**

The Mission of Disability Resources is to ensure qualified persons with disabilities equal access and reasonable accommodations in all Yavapai College's academic programs and activities.

Disability Resources provides services to students who qualify under the Americans with Disabilities Act, ADA Amendment Act 2008, and Section 504 of the Rehabilitation Act of 1973.

Students must self-identify and register with the Disability Resources office and provide required documentation verifying the nature and extent of their disability. The Disability Resources office is responsible for evaluating documentation and determining accommodation eligibility. All situations shall be considered on an individual, case-by-case basis.

Students requesting reasonable accommodations must do so by registering with Disability Resources in a timely manner, usually four to six weeks prior to the start of the semester. Without four to six weeks' notice, we cannot assure the timely availability of accommodations. The process of determining reasonable accommodations is collaborative among the student, Disability Resources staff and other college staff and faculty when necessary.

Assistance is available at all Yavapai College locations. Please visit our website at [www.yc.edu/disabilityresources](http://www.yc.edu/disabilityresources) or call us at 928.776.2085 for more information.

## **TRIO Programs**

TRIO is a set of college opportunity programs funded by the U.S. Department of Education and are designed to motivate and support eligible students and veterans in their pursuit of a college education. Of nearly 3,000 programs in the nation, Yavapai College is the fortunate recipient of three TRIO Programs, including Student Support Services, Educational Talent Search and Veterans Upward Bound. General eligibility criteria is based on low income status, first generation college attendance, and/or disability. Other program-specific eligibility requirements may apply.

### **Veterans Upward Bound - TRIO Program (VUB-TRIO)**

The primary mission of the VUB-TRIO Program is to prepare eligible veterans *before enrolling in college* to ensure academic success and completion of post-secondary education at a college, university, or vocational/technical school. In addition to low income status and/or neither parent having a four-year degree, eligible veterans must also have a discharge other than dishonorable with at least 180 days of active duty or a release for medical reasons. Members of the reserve component may also be considered for program eligibility. Other considerations may apply.

#### **Free VUB TRIO services provided to eligible veterans throughout northern Arizona include:**

- Individualized, self-paced refresher modules in basic mathematics through pre-calculus, computers, composition, literature and more
- Academic skills assessment
- Student success workshops and tutoring
- Guidance on post-secondary programs and career exploration
- Assistance with applying for college admissions, scholarships, financial aid, and veterans education benefits
- Referral and assistance with securing support services from local resources such as the Vet Center, Veterans Administration, and other veteran serving agencies

For more information call 928.717.7686. Visit online at [www.yc.edu/vub](http://www.yc.edu/vub).

### **Student Support Services - TRIO Program (SSS-TRIO)**

The SSS-TRIO Program helps eligible students stay in college, graduate, and/or transfer to a four-year university. The mission is to encourage and assist eligible students in reaching their educational goals. The program serves eligible students who are considered first generation college students, low income, and/or have a disability.

#### **Free services offered to students accepted into the program include:**

- Individual tutoring
- Assistance with financial aid and scholarships
- Extended academic advising and transfer assistance
- Student success and leadership development
- Cultural enrichment, social events, and university field trips
- Peer mentoring

For more information call 928.776.2084 (Prescott) or 928.634.6596 (Verde), email [sss@yc.edu](mailto:sss@yc.edu). Visit online at [www.yc.edu/ssss](http://www.yc.edu/ssss).

### **Educational Talent Search - TRIO Program (ETS-TRIO)**

Another federally-funded TRIO program at Yavapai College is ETS-TRIO which serves students, grades six through twelve, in ten schools in Yavapai County. The purpose of this early intervention program is to increase enrollment in post secondary education among traditionally under-represented groups including students who will likely qualify for federal financial aid programs and whose parents have not earned a bachelor's degree.

#### **Free comprehensive support services provided to eligible students in their schools include:**

- Academic counseling
- Goal-setting
- Career awareness
- Tutoring/mentoring
- Technology enrichment

- Exposure to college campuses and cultural events
- Assistance with college admissions
- Information and assistance in completing financial aid and scholarship applications

For more information call 928.717.7655, email ets@yc.edu. Specific schools served and program details can also be found online at [www.yc.edu/ets](http://www.yc.edu/ets).

## Housing

Yavapai College has two residence halls on the Prescott Campus. Students live in two-person rooms. Each unit has a private bath, cable and high speed Internet services. All students who apply for housing should refer to the Housing Handbook at [www.yc.edu/residencelife/](http://www.yc.edu/residencelife/) for the rules and regulations that govern residence hall living.

### Housing Reservations

#### Steps for new students to secure on-campus housing:

1. APPLY EARLY! Housing is limited
2. Submit completed application with deposit
3. Housing applications are available online at [www.yc.edu/residencelife](http://www.yc.edu/residencelife)
4. Include photocopy of immunization records with dates of required immunizations for MMR and meningococcal meningitis
5. Initial housing assignments are on a first come, first served basis

### Housing Deposit

Reservations are made by the Residence Life Office upon receipt of all required materials, providing rooms are still available. Deposits received after all spaces are filled will result in students being notified of their placement on a waiting list. Students who do not want to be on a waiting list may cancel their request and receive a full refund.

#### The housing deposit has two purposes:

1. Indication of a commitment to occupy a space in the residence hall
2. To insure against damages and loss of college property and expenses

**The housing deposit is refundable upon completion of the contract minus any damage fees (if applicable). All details can be found on the housing contract.**

### Housing Regulations

- Students must be enrolled in at least twelve credit-hours per semester.
- All residents are subject to the rules and regulations governing residence hall life as listed in the Housing Handbook and Student Code of Conduct.
- The Residence Life Office reserves the right to change, deny or to cancel the room reservation, either before or while the student occupies the room, if such action is believed to be in the best interest of the student and of the college.
- The college reserves the right (subject to the approval of the Yavapai College Governing Board) to increase the room charges as deemed necessary.
- Except for animals providing disability assistance, animals are prohibited in residence halls.
- Family housing is not available.

### Food Services for Residence Hall Students

Yavapai College food service offers a wide variety of meals based on a food court concept. Residence Hall students are required to purchase a meal plan. Meal plans guarantee a specific number of meals each week for the student. Roughrider Dollars are also available to supplement the meal plan. Meal plans and prices are subject to change. For further information regarding rates or plans, consult the Residence Life website at [www.yc.edu/residencelife](http://www.yc.edu/residencelife) or call 928.776.2220.

### Meal Plan Refund Policy

1. Changes in the meal plan will not be permitted after the first two weeks of the semester. Meal plan cycles begin on Friday and end on Thursday.
2. Meal plan refunds are given on a weekly pro-rated basis.

## **Adult Basic Education Program**

ABE (Adult Basic Education) provides adults with an opportunity to improve basic skills necessary to:

- Obtain a GED/HSE
- Academic readiness for career and college
- Pursue further education
- Get or keep a job
- Help their children achieve in school
- Participate more effectively in the community
- Learn English as a second language

Free ABE classes, funded by the Arizona Department of Education, are open to adults age 16 or older and who are eligible for services. The following classes are available:

- **GED/HSE Study Program:** GED/HSE stands for General Educational Development and is a way for adults to earn a high school equivalency diploma.
- **Basic Skills Enhancement:** Sometimes adults who have a high school diploma find that they need to learn new reading, writing, or math skills.
- **ESOL:** English for Speakers of Other Languages is for immigrants and refugees who are permanent residents of the United States. Classroom activities are designed to help adults adapt to a new culture and improve their English skills in the areas of speaking, listening, reading and writing.

## **ABE Transitions Program**

The ABE Transitions Program serves students enrolled in the college's Adult Basic Education (ABE) program. Specialized services designed to help students transition into college or career training programs are offered. The program is open to all current or former GED/HSE and ESOL students.

Components of the program include:

- Assistance with the college admissions and application process
- Academic advising and course registration assistance
- Workshops and trainings focusing on career exploration, goal setting, financial aid, and technology enrichment
- Field trips to Arizona colleges and universities
- Scholarships based on special eligibility

For more information, call 928.776.2094.

## **Student Engagement**

The office of Student Engagement supports the ongoing development of all students through diverse out-of-class opportunities. Student Engagement complements academic programs by providing students the opportunity to engage in social, cultural, educational, self-help, recreational, leadership and governance programs.

The Student Engagement department supports district student activities, clubs and special events that enhance the quality of student life, promote student development and student engagement with the College.

Both the Prescott campus and Verde Valley campus have game rooms available for students, including table games, television, board games, and video game stations.

For more information, call 928.776.2125 or visit our website at <https://www.yc.edu/v5content/student-life/>

Prescott Campus office: 3-125; Game room: 3-123

Verde Valley campus office: M-122

## **Student ID Cards**

The Yavapai College OneCard is your multipurpose student ID card. Photo ID cards may be obtained at the Prescott or Verde Valley Campuses, as well as the Prescott Valley, Chino Valley, CTEC and Sedona sites. The ID card is valid for the duration of a student's enrollment, so you will not need a new one each semester. If you are a new student, enroll in classes for the current semester and bring proof of registration and a current photo ID to any campus enrollment office to receive your ID. If you are a continuing student, obtain a new semester validation sticker, at no charge, by presenting your previous student ID card and your current semester schedule. Report lost or stolen cards immediately to the OneCard Office to avoid misuse of the card. The fee for replacement cards is \$25.

## **Photo ID cards are required for:**

- Residence Hall access, meal plan privileges, flexi-cash debit card privileges, and certain classes and class locations
- Checking out library materials in lieu of the Yavapai Library Network card

## **Library Services**

Library services are available to all Yavapai College students, faculty and staff as well as open to the public. The libraries support all YC-related classes. Yavapai College students can access library services, resources, hours of operation and more at our website ([www.yc.edu/library](http://www.yc.edu/library)). Library staff assistance is available in person, by phone at 928.776.2261 (Prescott Reference Desk), 928.776.2260 (Prescott Circulation Desk), 928.634.6540 (Verde Valley Reference Desk), 928.634.6541 (Verde Valley Circulation Desk), or use our Ask a Librarian service on our website.

Physical libraries are located on the Prescott (Building 19) and Verde Valley ("M" Building) campuses. Both libraries are members of the Yavapai Library Network. Yavapai College students have access to more than one million items through the 40+ member Yavapai county libraries.

## **Other services and resources:**

- Computers and printers
- Laptops for in-library use (Prescott only)
- Wireless access
- More than 80,000 full-text e-books
- Subject-specific and general interest article databases
- 24/7 access to millions of online magazine and newspaper articles
- Individual and class support for research projects
- Study rooms for group use
- Library instruction for YC classes
- Quiet study space
- Individual and group media viewing facilities
- Interlibrary loan services
- Government documents (Prescott campus only)

## **Borrowing Information:**

- YC students can obtain a library card by presenting a photo ID and proof of current enrollment at Yavapai College or make their YC ID their library card.
- YC faculty and staff can obtain a library card by presenting a photo ID and proof of current employment at Yavapai College or make their YC ID their library card.
- Community patrons can obtain a library card by presenting a photo ID that includes their current Yavapai county address or a photo ID with proper paperwork confirming Yavapai County residency.
- Any Yavapai Library Network card is valid to use in the library.

## **Student Printing at Yavapai College**

Yavapai College offers a pay-for-print solution called WEPA (Wireless Everywhere Print Anywhere). With these cloud-based WEPA printing kiosks, you can print from anywhere in a variety of ways. YC lab and library computers are set-up to print to the WEPA kiosks, you can also download the print driver onto your personal computer/laptop or tablet devices, upload your files via the web, or you can print your files from a flash drive. You have several options to pay for printing at these kiosks including using your YC flexi card, uploading funds to your WEPA account, credit/debit cards or WEPA Print Cards. For more information, please see the YC WEPA website at: [www.yc.edu/wepa](http://www.yc.edu/wepa).

## **Mail Center**

The Mail Center is located in Building 7, Room 101B and offers shipping services via US Mail (including stamps), UPS, and FedEx. Faxing, notary services and limited shipping supplies are also available. Residence Hall students are provided with an on-campus mailbox free of charge. For more information: [www.yc.edu/mailcenter](http://www.yc.edu/mailcenter).

## **Bookstore Purchases**

Students can purchase or rent required textbooks\*, as well as purchase reference materials, supplies, Yavapai College clothing and gifts at the Yavapai College Bookstore.

### **The Yavapai College Bookstore:**

- Accepts personal checks with proper identification, cash, Visa, MasterCard, Discover, American Express, YC Flexicash and Financial Aid for purchases
- Offers online shopping for all merchandise at [www.yavapaishop.com](http://www.yavapaishop.com), with store pick-up or free shipping available
- Offers price matching for textbooks sold directly from Amazon or Barnes and Noble
- Gives cash back for unwanted textbooks at the end of each semester -- see store for details
- 

\*Course textbook information is subject to change up to the start of classes. For the most current information, contact the instructor. For more information, call 928.776.2213 or visit online at [www.yavapaishop.com](http://www.yavapaishop.com).

## **College Police**

Arizona Revised Statutes recognize Yavapai College Police Department (YCPD) officers as peace officers, providing them with full enforcement authority in the State of Arizona. YCPD officers are commissioned under the authority of the Yavapai College District Governing Board with jurisdiction of all campuses and property owned and/or utilized for educational purposes by Yavapai College approved by the District Governing Board.

### **Yavapai College Police Department (YCPD) services include:**

- Responding to emergencies on campus
- Investigating traffic accidents
- Investigating crimes and violations of college policy
- Delivering emergency messages
- Assisting victims of crime
- Patrolling and monitoring the campus grounds for intrusion, fire, criminal activity and hazardous conditions
- Traffic control and sign placement
- Providing security consultation to the campus community
- Monitoring fire alarms
- Maintaining lost and found
- Serving as a central location for campus safety information
- Providing crime prevention seminars and programs
- Assisting with requested door locks/unlocks

## **Campus Crime Reporting**

The Yavapai College Police Department provides crime statistics for all campuses. These statistics can be obtained from the College Police Office, Student Affairs Office or on the **College Police website**.

Notification of college crime statistics is either mailed in post card format or sent by e-mail each year to currently enrolled students, faculty and staff. Prospective students are advised of the availability of the crime statistics through recruiters and also through the **College Police website**. Federal law, through the Department of Education, mandates that Yavapai College provide the college community with this information annually. The annual report is available on the **College Police website**, and also available for distribution at the College Police Department.

## **Osher Lifelong Learning Institute (OLLI)**

The Osher Lifelong Learning Institute is a membership organization of mature learners. The purpose of the institute is to provide members with educational, social and cultural experiences. It features collaborative leadership and active member participation. For more information call 928.717.7634 (Prescott), 928.649.5550 (Verde) and 928.649.4275 (Sedona).

## **Regional Economic Development Center**

The Yavapai College Regional Economic Development Center provides analysis and services that facilitate economic development throughout Yavapai County and build wealth in our local communities, including:

- Regional economic and policy analysis
- Economic impact and contribution analysis
- Customized training for regional employers
- Native American economic development
- Entrepreneurial education and resources

## **Small Business Development Center (SBDC)**

The SBDC (housed in the REDC) is a resource center for small business owners and entrepreneurs, helping businesses succeed through free counseling in finance, management excellence, and marketing. The SBDC provides access to a powerful network of business tools that extend throughout the federal, state, county and private sectors.

## **Workforce Training**

By providing highly trained individuals ready to enter the workforce and excel in their area of expertise, Yavapai College graduates are proof of economic development in action. From Law enforcement officers, paramedics and firefighters to nurse and technical trade workers, YC serves the community by adding to its civil and economic security.

# Student Rights and Responsibilities

## Student Records Disclosure

The Family Educational Rights and Privacy act of 1974 (FERPA) affords eligible students certain rights with respect to their education records. (An "eligible student" under FERPA is a student who is 18 years of age or older or who attends a postsecondary institution.) These rights include:

1. The right to inspect and review the student's education records within 45 days of the day Yavapai College receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
2. The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA. A student who wishes to ask the College to amend a record should write the school official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. The right to provide written consent before the College discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent. The College discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic, research or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of trustees; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the College who performs an institutional service or function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent or a student volunteering to assist another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College.
4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Yavapai College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA are:

FERPA permits the disclosure of PII from students' education records, without consent of the student, if the disclosure meets certain conditions found in 99.31 of the FERPA regulations. Except for disclosures to school officials, disclosures related to some judicial orders or lawfully issued subpoenas, disclosures of directory information, and disclosures to the student, 99.32 of FERPA regulations requires the institution to record the disclosure. Eligible students have a right to inspect and review the record of disclosures. A postsecondary institution may disclose PII from the education records without obtaining prior written consent of the student-

- To other school officials, including teachers, with the College whom the school has determined to have legitimate educational interests. This includes contractors, consultants, volunteers, or other parties to whom the school has outsourced institutional services or functions, provided that the conditions listed in 99.31 (a)(1)(B)(1)-(a)(1)(i)(B)(2) are met. (99.31(a)(1))
- To officials of another school where the student seeks or intends to enroll, or where the student is already enrolled if the disclosure is for the purposes related to the student's enrollment or transfer, subject to the requirements of 99.34. (99.31(a)(2))
- To authorized representatives of the U.S. Comptroller General, the U. S. Attorney General, the U.S. Secretary of Education, or State and local educational authorities, such as a State postsecondary authority that is responsible for supervising the university's State-supported education programs. Disclosures under this provision may be made, subject to the requirements of 99.35, in connection with an audit or evaluation of Federal- or State-supported education programs, or for the enforcement of or compliance with Federal legal requirements that relate to those programs. These entities may make further disclosures of PII to outside entities that are designated by them as their authorized representatives to conduct any audit, evaluation, or enforcement or compliance activity on their behalf. (99.31(a)(3) and 99.35)
- In connection with financial aid for which the student has applied or which the student has received, if the information is necessary to determine eligibility for the aid, determine the amount of the aid, determine the conditions of the aid, or enforce the terms and conditions of the aid. (99.31(a)(4))
- To organizations conducting studies for, or on behalf of, the school, in order to: (a) develop, validate, or administer predictive tests; (b) administer student aid programs; or (c) improve instruction. (99.31(a)(6))
- To accrediting organizations to carry out their accrediting functions. ((99.31(a)(7))

- To parents of an eligible student if the student is a dependent for IRS tax purposes. (99.31(a)(8))
- To comply with a judicial order or lawfully issued subpoena. (99.31(a)(9))
- To appropriate officials in connection with a health or safety emergency, subject to 99.36. (99.31(a)(10))
- Information the school has designated as "directory information" under 99.37. (99.31(a) (11))
- To a victim of an alleged perpetrator of a crime of violence or a non-forcible sex offense, subject to the requirements of 99.39. The disclosure may only include the final results of the disciplinary proceeding with respect to that alleged crime or offense, regardless of the finding.(99.31(a)(13))
- To the general public, the final results of a disciplinary proceeding, subject to the requirements of 99.39, if the school determines the student is an alleged perpetrator of a crime of violence or non-forcible sex offense and the student has committed a violation of the school's rules or policies with respect to the allegation made against him or her. (99.31(a)(14))
- To the parents of any student regarding the student's violation of any Federal, State, or local law, or of any rule or policy of the school, governing the use or possession of alcohol or a controlled substance if the school determines the student committed a disciplinary violation and the student is under the age of 21. (99.31(a)(15))

#### **Family Compliance Office**

U.S. Department of Education  
400 Maryland AVE S.W.  
Washington, DC 20202-5901

## **Directory Information**

In compliance with FERPA, Yavapai College designates the following personally identifiable information about a student as directory information. Unless restricted by a student, directory information may be released to the public without the prior consent of the student. The student may request a privacy hold ("confidentiality hold") in person or in writing through Enrollment Services. These requests remain in effect until revoked in person or in writing. Directory information includes: name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of athletic team members, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended, photographs, email address, and grade level.

## **Code of Conduct**

Yavapai College strives to create an atmosphere which supports the academic mission of the institution. Students should be able to learn in an environment which is orderly, peaceful, and free of disturbances. Respect for the rights of others and for the college and its property are essential expectations for each Yavapai College student. The purpose of the Code of Conduct is to outline behavioral expectations, and to provide an explanation of the process involved for responding to allegations of student misconduct. The policies and protocols for preventing, reporting and adjudicating incidents of Sexual Misconduct, Sexual Violence and Stalking are all outlined in the Code of Conduct. Students are responsible for understanding and following the Code of Conduct.

## **Title IX -Sexual Misconduct**

Yavapai College does not deny or limit any student or employee the ability to participate in or benefit from any program offered by the institution on the basis of sex or gender. Sexual harassment, which includes acts of sexual violence such as rape, sexual assault, sexual battery, sexual coercion, unwanted touching, dating/relationship violence and stalking, are forms of gender-based discrimination prohibited by Title IX.

Sexual harassment is conduct that:

- Is unwelcome
- Is based on sex or gender
- Is severe or pervasive enough to interfere with an individual's campus employment, academic performance or performance in college programs and activities
- Creates an intimidating, hostile or offensive working or learning environment

The college encourages students and employees to report incidents of sexual misconduct as soon as possible to the Title IX Coordinator or to a Deputy Title IX Coordinator. Contact information for Coordinators can be found on the Sexual Misconduct Resources and Policy webpage: [www.yc.edu/v5content/student-services/sexualmisconduct.htm](http://www.yc.edu/v5content/student-services/sexualmisconduct.htm). Additionally, this webpage includes the college's Sexual Misconduct Policy.

## **Harassment**

Yavapai College maintains a Zero Tolerance policy for unlawful or discriminatory harassment. The College is committed to creating a harassment free environment for all employees and students. Necessary action will be taken to prevent, correct, and if needed, discipline persons whose behavior violates this policy. Disciplinary action may result in measures up to and including termination of employment or expulsion from enrollment.

## **Academic Integrity**

Honesty in academic work is a central element of the learning environment. The presentation of another individual's work as one's own or the act of seeking unfair academic advantage through cheating, plagiarism or other dishonest means are violations of the College's "Code of Conduct." Failure to abide by the terms and conditions of the "Code of Conduct" will result in disciplinary action, up to and including dismissal from the College.

## **Plagiarism**

Plagiarism is defined as submitting any academic work which is not entirely the work of the student, deliberately or accidentally. This can include, but is not limited to, such practices as not giving proper credit to a source, expanding someone else's work without giving proper credit, adopting another's work as one's own (including the copying of print or electronic media), directly using someone else's ideas without giving proper credit, and deliberately changing selective words to misrepresent someone else's work as one's own.

## **Cheating**

Cheating is defined as submitting assignments, examinations, or other work which is based on deception or misrepresentation of the individual's own work. Cheating includes the furnishing of materials to another person for purposes of aiding that person to gain unfair academic advantage.

## **Violation of Copyright**

The unauthorized reproduction or use of copyrighted material, whether print or electronic media, is unacceptable and considered an act of academic dishonesty. In addition, the violator may be subject to legal penalty since such practice is illegal.

## **Penalties**

The following penalties may be applied in instances of misconduct (e.g. academic dishonesty, unacceptable behavior in the learning environment, or disrespectful communication):

1. **Removal from Class:** an instructor may dismiss a student from a class meeting or learning environment for misconduct. This action shall be immediately reported to the supervising instructional Dean. The student must confer with the instructor and the supervising instructional Dean before being readmitted to class. In extreme cases, the student may be dropped from class.
2. **A grade of "F" (failure)** may be awarded for the assignment or activity in which misconduct occurred or for the entire course regardless of the length of time the student has been in attendance. The grade of "F" will override or supersede any student-initiated withdrawal from the course.
3. **Referral to the Code of Conduct Judicial System:** if the student's conduct is deemed in need of action beyond academic recourse by the supervising instructional Dean, the student will be referred to the college judicial system. Sanctions may include suspension, expulsion, and/or revocation of degree and/or certificate. Once the case has been referred to the College judicial process, procedures for appeals will follow the guidelines provided in Section 2-3.
4. **Legal measures** may be taken by Yavapai College, including referral to law enforcement or civil action.

## **Tobacco Use Policy**

Yavapai College is committed to limiting exposure to the harmful effects of primary and secondary smoke to campus students, visitors, and employees. In order to reduce the harmful effects of tobacco use and to maintain a healthful working and learning environment, the College prohibits smoking, including vaping, on all campuses except in designated smoking areas as per the Smoking & Tobacco Use Policy (5.35).

## **Non-Academic Complaints**

The Yavapai College process for non-academic complaints is to be used for issues other than disciplinary or academic matters and provides students protection against unwarranted infringement of their rights. A non-academic student complaint may concern an alleged violation of college policies, infringement of student rights, and other such problems dealing with students, college staff and faculty, and authorized college activities.

The following procedures will be followed to insure an appropriate resolution of a student nonacademic complaint at the lowest possible level:

1. The student will attempt to rectify the complaint with the person or party directly involved in the alleged violation within ten (10) college business days. For the purpose of this policy, a "business day" shall be a weekday during which regular classes are being held at the college. Every effort will be made to resolve the complaint at the lowest possible level.

2. Where resolution is impossible or unsatisfactory to either party, the student should appeal to the appropriate supervisor within ten (10) college business days. The supervisor will informally discuss the matter with the student in an effort to resolve the complaint.
3. If the student feels the complaint has not been resolved, they may submit a written complaint to the Dean of Student Services within ten (10) college working days from the time the complaint was filed at the previous level. The Dean will work with all parties involved to mediate the complaint in a timely manner. In order to mediate the complaint, the Dean may engage faculty or staff members relevant to the complaint in an informal discussion. The decision of the Dean of Student Services regarding a non-academic complaint is final.

## **Drug Free Environment Policy**

Yavapai College's policy is to provide an environment free of drugs and alcohol. The use of illegal drugs and the abuse of alcohol pose significant threats to health and can be detrimental to the physical, psychological, and social well-being of the user and the entire Yavapai College community.

Yavapai College has a responsibility as part of its educational mission to provide students, faculty, and staff with knowledge about the dangers of substance abuse and to help them develop a healthy approach to life. We intend to create and sustain an atmosphere that promotes healthy lifestyles free from the abuse of alcohol and other drugs.

To address the serious nature of alcohol and drug use at Yavapai College and in keeping with the Drug-Free Schools and Communities Act, Yavapai College has adopted a Drug-Free Workplace Policy. The policy prohibits the unlawful possession, use, or distribution of drugs and alcohol by students and employees.

Information regarding: 1) the laws governing the distribution, use and possession of drugs and alcohol; 2) the health risks associated with substance abuse, and; 3) education and prevention services and programs may be found in the Clery Report at: <https://www.yc.edu/v5content/college-police/docs/clery.htm>. The Clery Report is released each October for the previous 12 months, and is compiled by the Yavapai College Police Department.

## **College Photo and Videotape Policy**

Yavapai College takes photos and videotapes of students throughout the year. These photographs often include students in classrooms, study areas, residence halls, athletic events and so forth. Yavapai College reserves the right to use these photographs as part of its publicity and marketing efforts. Students who enroll at Yavapai College do so with the understanding that these photographs might include them and might be used in college publications and for publicity.

## **Acceptable Use**

Yavapai College technological equipment and resources must be used in accordance with the Technology Resource Standards (5.27), Copyright Use (2.28) and Peer-to-Peer (P2P) File Sharing (5.26) policies. Use of Yavapai College equipment and resources to illegally copy, download, access, print or store copyrighted material or download pornographic material is strictly prohibited. For example, file swapping of copyrighted material, such as music or movies is strictly prohibited. Users found to violate this policy will have their privileges to use Yavapai College technological equipment and resources revoked.

## **Academic Requirements**

The college has established academic requirements which must be met before a degree or certificate is granted. Faculty, Deans, Academic Advisors and other Staff are available to help the student understand and meet these requirements, but the student is responsible for fulfilling them. At the end of a student's course of study, if requirements for graduation have not been satisfied, the degree or certificate will not be granted. For this reason, it is important for the student to be acquainted with all requirements, to remain currently informed of all requirements and to be responsible for completing the requirements. Courses, programs, and requirements described in the catalog may be suspended, deleted, restricted, supplemented or changed at any time at the discretion of the Yavapai College District Governing Board.

## Academic Information and Standards

### Assessment of Student Academic Achievement

In harmony with Yavapai College's mission to provide quality higher learning, the assessment cycle of continuous improvement based on evidence ensures the quality of students' academic experiences. The purpose of assessment is to measure the degree to which students attain the educational goals and outcomes determined by the academic departments of the college. The assessment process consists of identifying goals and outcomes, gathering evidence about how well students are attaining the goals and outcomes, and using the information to improve instruction and revise curriculum.

### Academic Load

Classes routinely require two to three hours of outside preparation for each hour spent in class. Some specialized academic programs may require additional outside preparation. To ensure that students have every opportunity for success in courses, academic loads must be carefully planned.

Full-time student status is defined as 12 credit hours per semester. A typical academic load for many programs is 15-16 credit hours per semester; the maximum academic load is generally 18 credit hours. Ordinarily, only a student with a grade point average of 3.00 or better of full-time work is allowed to carry more than the maximum load. A student not qualifying may petition the District Director of Academic Advising or designee for permission to carry an overload.

Students who are employed or who undertake many extracurricular activities will find it advisable to reduce their academic loads accordingly.

### State Authorization

The U.S. Department of Education requires institutions that offer distance education in a state where it is not physically located meet individual state requirements. The State Authorization Reciprocity Agreement (SARA) is an agreement among member states, districts and territories that establishes comparable national standards for interstate offering of postsecondary distance education courses and programs. Arizona was approved as a State Authorization Reciprocity Agreement (SARA) state effective November 11, 2014. Yavapai College was approved as an Arizona member institution. Yavapai College adheres to the *Interregional Guidelines for the Evaluation of Distance Education Programs (Online Learning)* for best practices in postsecondary distance education developed by leading practitioners of distance education and adopted by the Council of Regional Accrediting Commissions (C-RAC). This regulation applies only to distance education courses for students who reside outside the state of Arizona.

If a student has a complaint against a higher education state agency responsible for state authorizations, please see the Distance Learning Complaint Process for Out of State Students.

Further information on State Authorization: [www.yc.edu/stateauthorization](http://www.yc.edu/stateauthorization)

### Grades and Credits

Instructors will evaluate student achievement of course learning outcomes, and students will be regularly informed of their progress. Evaluation measures will be clearly set forth by the instructor in the course syllabus. A variety of evaluation methods relevant to the learning outcomes may be used.

Grades		
Letters	Grades	Grade Points
A	Excellent	4 grade points per semester hour
B	Good	3 grade points per semester hour
C	Average	2 grade points per semester hour
S	Satisfactory	not computed in GPA (equivalent to C grade)

A course completed with a grade of A, B, C or S fulfills the prerequisite requirement for another course. A maximum of 12 credit hours of S grades may be applied to a degree or certificate program. Grades of S are not an option towards completion of an AGEC (Arizona General Education Curriculum) certificate.

D	Unsatisfactory	1 grade points per semester hour
F	Failure	0 grade points per semester hour
U	Unsatisfactory	not computed in GPA

*A course completed with a grade of D, F or U does not fulfill the prerequisite requirement for another course and may not be applied to a degree or certificate requirement.*

I	Incomplete	not computed in GPA
W	Withdraw	not computed in GPA
Y	Administrative Withdraw	not computed in GPA
AU	Audit (no credit)	not computed in GPA

**To calculate the Grade Point Average (GPA) for the semester:**

1. Multiply the points assigned to the letter grade by the number of credit hours earned in each class
2. Add the points of all classes together
3. Divide by the total number of credits

## Sample Grade Point Average (GPA) Calculation

CRS. #	Course Title	Grade Letter = (Points)	Credit Hours	Total Grade Points
ENG 101	College Comp 1	A (4)	x 3	= 12
SPA 101	Beginning Spanish1	B (3)	x 4	= 12
			Totals 7	24

**Total Grade Points (24) divided by Total Credit Hours (7)=3.4 GPA**

## Incomplete Grades

A grade of "I" may be requested by a student and will be posted to the student's permanent record only at the end of a semester in which the student has done the following:

1. Has completed a significant majority of the work required for the course while maintaining a "C" average for work submitted and is capable of completing the remainder of the required work for this course
2. Experienced extenuating circumstances which prevent completion of the course requirements

It is the exclusive responsibility of each student receiving an Incomplete to be in communication with the instructor and complete the course(s) by the deadline established by the instructor; the maximum of which can be 45 days. The instructor will then initiate a Change of Grade form. If the instructor is no longer available, the student should contact the supervising instructional division dean. If the work required is not completed by the deadline established by the instructor, the grade specified by the instructor will be posted to the permanent record.

## Satisfactory (S)/Unsatisfactory (U) Grades

Yavapai College encourages each student to explore areas of study outside the major field of study. The S/U grading option is one way the College stimulates this exploration.

The "S" grade is defined as equivalent to a grade of "C" or better on the conventional grading scale of A-F. A course completed with an "S" grade indicates appropriate subject area knowledge to satisfy the prerequisite requirement of a related higher-level course. Specified courses are graded only S/U. Students who prefer the S/U grading option must notify the class instructor. Conditions of Satisfactory/Unsatisfactory (S/U) grading:

- Since some college and universities limit the number of credits completed with S/U grading that will transfer, or restrict the way that such credits may be applied to degree requirements, it is recommended that students preparing to transfer select the S/U grading option only for elective courses.
- A maximum of twelve (12) hours of "S" credit from 100- and 200-level courses may be applied toward Yavapai College graduation requirements.
- S/U grading is not an option for courses applied to the Arizona General Education Curriculum (AGEC).
- S/U grades are not computed in the student's Yavapai College grade point average.

## Auditing a Course

A student wishing exposure to a course may elect to audit. Regular attendance at all class meetings is the responsibility of the student, but writing assignments and examinations are not mandatory. A grade of "AU" will be awarded for satisfactory attendance. Courses audited carry no credit toward the grade point average, toward graduation, or toward meeting professional requirements. Audit units do not count toward determining the eligibility for financial aid purposes. Audits may be repeated for credit. Once a student registers for and completes a class as an auditor, the audit on the permanent record may not be changed to a credit-earning grade.

Students enrolling for credit will have priority over auditors until the first class day of the course, at which time auditors may enroll on a space available basis. An additional fee is assessed to audited courses. Go to [www.yc.edu/tuition](http://www.yc.edu/tuition) for current fee.

## **Repeating a Course**

A student may repeat any course offered by Yavapai College in order to improve a grade, or gain additional knowledge, experience, or other benefit, limited only by the following conditions:

- The credit earned in repeated courses will only be counted one time for completion of degree/certificate requirements unless otherwise noted in the course description
- A student may enroll in concurrent sections of a course only if the course is numbered 000-099
- Repeated courses may not be eligible for federal Financial Aid funding or veteran education benefits
- An individual student's repeat enrollments in specific courses may be restricted if it is determined to be in the best interest of the student or College

All grades appear on the permanent transcript. Included in the cumulative grade point average is the highest single grade earned in a course and all applicable grades earned in repeatable courses.

## **Change of Final Grade**

In case of an error in computing or recording a final grade, a student may request a grade change by faculty no later than 30 calendar days after the date the final grade has been posted to the student's permanent record. Once a grade for a course has been officially posted to the student's permanent record by the Registrar, the instructor may change the grade due to the following:

1. An error occurred in the computer and/or recording of the grade or,
2. An incomplete classification (I)

A Change of Grade request after 30 calendar days must be completed with appropriate signatures including the instructor, and Dean or designee. The request is then submitted to the Registrar.

## **Student Appeal of Academic or Instructional Decisions by Faculty**

A student may appeal an academic or instructional decision by faculty if s/he deems the decision to be made in error. The appeal must be made in a timely manner in accordance with established procedures.

### **Procedure**

A student may only appeal a decision that affects him/her directly and must represent themselves in the appeal process. The appeal of an academic or instructional decision requires documentation that the decision was incorrect.

1. The first step in the appeal process is for the student to contact the faculty member who made the academic or instructional decision. This contact must be made within 10 business days of the official notification date of the decision. For appeals concerning a final grade, official notification is considered to be the date the grade is posted to the student's permanent record.
2. In the event the faculty member and student are unable to reach a mutual agreement within ten (10) business days, the student may then appeal to the appropriate Dean or designee. The appeal to the Dean or designee must be made within 10 business days in writing using the official form, "Academic or Instructional Decision Appeal to the Dean." All documentation supporting the reason for the appeal must be provided at the time the appeal is submitted. This appeal must succinctly describe the issues involved, evidence that an error was made, and any relevant information. Missing, incomplete or erroneous information may cause the appeal to be rejected.
3. The Dean or designee will review the student's appeal and make a decision based on the documentation provided by the student, the faculty member, and other relevant information that may include meetings with appropriate individuals. The Dean's or designee's investigation and decision must be concluded within 10 business days of the date the student appealed the decision. The Dean or designee will provide written documentation of the decision to the student and faculty member.
4. In the event the student is dissatisfied with the decision of the Dean or designee, a further appeal may be made to the Vice President for Instruction and Student Development or designee. The appeal must be made in writing within 10 business days of the date the student received notification of the results of the appeal to the Dean. This formal, written appeal must relate only to the original decision that is being appealed. No additional claims or issues will be included or addressed in the review of the appeal.
5. The Vice President for Instruction and Student Development or designee will conduct a formal review of the appeal as presented by the student, including review of relevant policy, review of information provided by the faculty member, and review of the decision by the Dean.

The formal review and decision by the Vice President for Instruction and Student Development or designee must be completed within 10 business days of the receipt of the student's written appeal. The decision must be communicated in writing to all involved parties. The decision of the Vice President for Instruction and Student Development or designee is considered final.

## **Academic Honors List**

An honor bestowed upon students who demonstrate exemplary performance. To be eligible, a student must complete 12 or more credits in that semester with a grade point average of 3.5 or higher.

## **Resources**

Academic or Instructional Decision Appeal to the Dean Form: [www.yc.edu/studentcomplaint](http://www.yc.edu/studentcomplaint)

## **Standards of Academic Progress**

The College has a process by which a student who experiences academic difficulty may receive assistance to improve academic performance and progress toward educational goals. Unsatisfactory academic progress is indicated by academic warning, academic probation, and academic suspension.

In order to plan a program of study and create an awareness of College resources which will assist a student's return to satisfactory academic standing, a student who has made unsatisfactory academic progress must meet with an academic advisor. Academic advisors may limit the number of credit hours a student may enroll in, require developmental classes, or recommend other resources that may assist the student.

In order for a student to be removed from academic warning or probationary status, the student must attain academic good standing (2.00 Cumulative GPA). A student's academic status will be determined at the end of each semester. The student who has made unsatisfactory academic progress will receive written notification at the end of the semester.

The academic standards categories and resulting status of students are listed below.

### **Academic Warning:**

A student who has attempted 12 credits or more and earned a cumulative GPA of less than 2.0 is placed on Academic Warning (AW). A student on academic warning (AW) may continue attending school as long as the student maintains a semester GPA equal to or greater than 2.0, based on attempted credits. The academic warning (AW) standing will remain in effect until the cumulative GPA meets or exceeds 2.0, at which time the academic warning (AW) standing is removed.

### **Academic Probation:**

If a student on academic warning (AW) earns less than 2.0 semester GPA in the subsequent semester, based on attempted credits, the academic warning (AW) standing converts to academic probation (AP).

A student on academic probation (AP) may continue attending school for up to two subsequent semesters. During the first semester on academic probation (AP), the student must achieve a semester GPA of 2.0 or above. During the second semester of academic probation (AP), the student must achieve a cumulative GPA of 2.0 or above.

### **Academic Suspension:**

If the student on academic probation (AP) does not meet the above requirements, the academic standing converts to academic suspension (AS) and the student will be suspended from Yavapai College.

## **Petition for Reinstatement**

A student who has been placed on academic suspension may petition to the Dean for Student Development (or designee) in writing, stating the reasons why the academic status and stated restrictions should be waived or changed. A petition will be considered after a minimum one semester waiting period. The petition is to be submitted at least one week prior to the semester for which enrollment is requested. If reinstatement is approved, the student will be placed on academic probation (AP) and progress will be reviewed at the end of each semester. The decision of the Dean for Student Development (or designee) is final.

## **Academic Renewal**

Academic Renewal allows a student who experienced academic difficulties during earlier attendance at Yavapai College to have grades for a particular period of time excluded from the calculation of the grade point average. All courses and grades remain on the student's permanent academic record.

### **Conditions:**

- Before applying for Academic Renewal the student must complete at least twelve credit hours of academic course work with a grade of "C" or better in each course.
- Application for Academic Renewal may be made after a two-year waiting period from the last semester to be considered for renewal.

- Academic Renewal is granted on a semester basis, not on a per course selection basis. The student may have a maximum of four consecutive semesters (including summer) of course work disregarded in calculations regarding academic standing, grade-point average, and eligibility for degree or certificate completion.
- Academic Renewal may be granted only once during a student's academic career at Yavapai College and may not extend to other institutions.
- If a student's application for Academic Renewal is approved, the student's permanent record will be annotated to indicate that no work completed during the disregarded semester(s) or term(s), even if satisfactory, may be calculated in the grade-point average or applied to completion of certificate/degree requirements. Academic Renewal is not available to students who have already completed requirements for a certificate or degree. Since the student's complete record (before and after Academic Renewal) remains on the transcript, other institutions may consider all course work when a student transfers or applies to professional or graduate-level programs.

### **Procedures:**

1. The student application for Academic Renewal must be obtained from an academic advisor.
2. The student's academic advisor must sign the form and attach a copy of the student's transcript and forward to the Office of the Registrar.
3. The application must be approved by the Registrar. If approved, the Registrar will update the students transcript.

## **College Honors Program**

Each year the college accepts approximately twenty-five students into its Honors Program. The program offers educational enrichment through travel, special events, lectures, and honors classes. Students enroll in a one-credit class ("The Honors Colloquium") each semester. The Honors Colloquium, when successfully completed three semesters, fulfills the Yavapai College Critical Thinking requirement. Most years, students in the program are expected to participate in an extensive college-sponsored trip to a location selected for its cultural interest.

Admission to the program is through a competitive application process and is based on academic achievement and a demonstrated ability to think critically and independently. Entering freshmen must have a cumulative grade point average of at least 3.50 on a 4 point scale, or have scored at least 650 on a High School Equivalence Diploma, be at least 17 years old by the start of their first semester in the program, have completed no more than 13 credit hours of 100-level or higher college coursework (with a minimum 3.50 GPA for any completed credits). Continuing students who have completed 14-48 hours of Yavapai College credit (in courses numbered 100 or above) with a grade point average of at least 3.50 may also apply for admission.

Required application materials include transcripts, letters of recommendation, a Yavapai College academic plan (continuing students only), SAT or ACT scores (incoming freshmen only) and an essay on an assigned topic. Updated application instructions are available on the Honors Program website ([www.yc.edu/chp](http://www.yc.edu/chp)) in late December. The deadline for application is March 1.

Once admitted, students must complete a minimum of 13 credit hours per semester, make satisfactory progress toward a Yavapai College Associate degree, maintain a minimum grade point average of 3.50, and participate fully in Honors Program activities in order to remain in the program.

### **Benefits to College Honors Program Students:**

- Scholarships of \$1,000 per semester
- Tuition waivers for 13 - 16 credit hours per semester
- Up to 4 semesters of eligibility for students admitted as incoming freshmen
- Admission to honors classes
- Opportunities to interact with other academically gifted students
- Opportunities for intellectual and cultural growth and enrichment experiences, including travel
- Advisement and other activities designed to clarify long-range career and academic plans
- Assistance in applying for scholarships and admission to honors programs at universities where students intend to complete baccalaureate study
- Special recognition upon graduation
- 

More information about the program is available on the Honors Program website ([www.yc.edu/chp](http://www.yc.edu/chp)).

## **Educational Partnerships**

Yavapai College has partnerships with the three Arizona state public universities (Arizona State University, Northern Arizona University, and the University of Arizona), as well as transfer agreements with other U.S. universities and colleges that are regionally accredited. Transfer partnerships assist students in making a smooth transition from one institution to the next by maximizing credits. Several university partners offer Yavapai College graduates dedicated advisement as well as financial incentives such as tuition and transfer scholarships, waiver of application fees, textbook waivers, and special tuition incentives. To view a list of institutions with which Yavapai College has established articulation agreements, and to view a schedule of university visits to YC campuses, see <https://www.yc.edu/v5content/advising/transfer.htm>.

### **Guidance Academy, LLC dba Guidance Aviation**

Yavapai College and Guidance Aviation in Prescott, Arizona have partnered to establish a joint flight training program at Yavapai College's Career and Technical Education Center and Ernest E. Love Field. The partnership supports the Helicopter Concentration of the AAS in Aviation Technology in which the ground and air curriculum are approved by the Federal Aviation Administration (FAA).

### **North-Aire Aviation, LLC**

Yavapai College and North-Aire Aviation have established a joint flight training program at Yavapai College's Career and Technical Education Center and Ernest E. Love Field in Prescott, Arizona. The AAS in Aviation Technology with a Concentration in Airplane Operations is supported by this partnership in which the air and ground curriculum are approved by the Federal Aviation Administration (FAA).

## **Early College Programs**

Early College Programs are designed to help students make the most of both high school and college. The programs include:

- **Advanced Placement:** Students take college-level coursework while fulfilling high school graduation requirements.
- **Dual Enrollment:** Yavapai College partners with county high schools to extend the privilege to college-ready students to participate in accelerated college level coursework. These classes are taught on the high school campus, during the high school day by credentialed YC instructor.
- **JTED:** Yavapai College has partnered with Mountain Institute Joint Vocational District (MIJTED) and Valley Academy for Career and Technical Education (VACTE) to advance career training to high school students preparing for the workforce. Students attending central campus programs may earn both high school and YC credit. The partnership prepares students with the skills and industry based certifications needed to gain employment or to continue pursuing a college education.
- **Concurrent Enrollment:** Designed for students who want to take classes at a YC campus while still in high school. Open to all qualified high school students, it is recommended that students work closely with their high school to identify college courses that will meet high school graduation requirements.

See <http://www.yc.edu/v5content/highschool/default.htm> for details.

## **Articulation Agreements**

Articulation and transfer agreements specify which courses are equivalents from, or to, another institution. Your advisor will be able to tell you if such an agreement exists, and for which specific courses. Related information is available at University Transfer Information/Resources found at [www.yc.edu/advising](http://www.yc.edu/advising).

## Prior Learning

Yavapai College recognizes that learning experiences take place in a variety of settings. Many students have significant, demonstrable learning that has come from educational experiences outside the traditional academic environment. Students may be awarded college credit for prior or extra-institutional learning based on established assessment methods including articulation agreements, credit by evaluation, and college-level equivalency examinations. All assessment methods used by the College require faculty review and oversight to determine that learning outcomes have been accomplished by determining acceptable test scores, appropriate equivalencies, special program requirements, or other academic considerations.

### Additional Information:

- A maximum of 30 credit hours by any combination of examination, special articulation agreement, or evaluation will be accepted.
- A student must successfully complete at least one credit course at Yavapai College before any credit for prior learning will be documented on the College transcript.
- Duplicate credit will not be awarded for prior learning in subject matter for which the student has already received credit.
- Assessment for prior learning will not be administered for equivalency of courses numbered below 100.
- Credit will not be granted for more elementary course work or for a prerequisite to a course in which the student is enrolled or for which the student has already received credit.
- An official transcript or documentation of test scores must be sent directly to the Registrar from the administering agency or testing company prior to assessing eligibility for credit.
- The Yavapai College transcript will document only that credit for prior learning has been granted and the number of credits awarded. No letter grade will be assigned for any assessment of prior learning and no record will be made of unsuccessful assessments.
- While Yavapai College will award credit for prior learning in accordance with institutional policies and procedures, the credit is not necessarily transferable to other colleges and universities. Therefore, students are strongly advised to meet with a program advisor at the college or university they plan to attend.
- Credit for prior learning may impact financial aid awards. Therefore, students are strongly advised to meet with a financial aid advisor prior to pursuing assessment of prior learning.
- The student must pay any fees and adhere to approved administrative procedures for the prior learning assessment method selected. All fees are non-refundable.

## Military Training and Experience:

ACE Military Registry Transcripts including AARTS (Army); SMART (Navy and Marine Corp); CCAF (Air Force); and CARTS (Coast Guard) can be considered. The student must request that the transcript be sent to Enrollment Services or electronically to: [electronicreceipts@yc.edu](mailto:electronicreceipts@yc.edu). For more information: consult <http://aarts.army.mil/> (check the information on "Related Links/Referrals" for other military branches of service).

- Credit awarded is not necessarily transferable to other institutions, and may impact financial aid awards. Students should meet with a financial aid advisor prior to pursuing assessment of military training.

## Advanced Placement (AP) Table\*

Students who have taken a college board advanced placement course in their secondary school may be eligible to receive YC credit. Listed are the AP subject areas accepted by Yavapai College, the score required, the credit awarded and the recommended YC equivalent. Students should have their scores sent directly to the YC Registrar's office.

Exam	Score	Credits	YC Equivalent
Art History	3 4/5	3 6	ART 200 or ART 201 ART 200 & ART 201
Biology	3 4/5	4 8	BIO 100 BIO 181 & BIO 182
Calculus AB	3/4/5	5	MAT 220
Calculus BC	3 4/5	5 10	MAT 220 MAT 220 & MAT 230
Chemistry	4 5	5 10	CHM 151 CHM 151 & CHM 152

Comparative Government & Politics	4/5	3	Elective Credit
English Language & Composition	4/5	3	ENG 101 or Dept Elective
English Literature & Composition	4/5	3	ENG 101 or Dept Elective
Environmental Science	4/5	3	Elective Credit
European History	4/5	6	HIS 201 & HIS 202
Human Geography	4/5	3	GEO 105
Macroeconomics	4/5	3	ECN 235
Microeconomics	4/5	3	ECN 236
Music Theory	4/5	4	MUS 131
Physics 1	4/5	4	PHY 111
Physics 2	4/5	4	PHY 112
Physics C (Mechanics)	3/4/5	4	PHY 111
Physics C (Elect. & Magnetism)	3/4/5	4	PHY 112
Psychology	4/5	3	PSY 101
Spanish Language	3/4/5	16	SPA 101, SPA 102, SPA 201 & SPA 202
Spanish Literature & Culture	3/4/5	16	SPA 101, SPA 102, SPA 201 & SPA 202
Statistics	3/4/5	3	MAT 167
Studio Art: Drawing	4/5	3	ART 110**
Studio Art: 2D Design	4/5	3	ART 112**
Studio Art: 3D Design	4/5	3	ART 113 **
US History	4/5	6	HIS 231 & HIS 232

\*These areas of study represent the Advanced Placement Standards set by the state of Arizona's Articulation Task Forces and approved by the AZ Transfer Steering Committee.

\*\*To receive credit, student must submit their portfolio to the Arts and Humanities Division Dean for approval.

## Cambridge Assessment International Education (formerly CIE) Table

Listed are the Cambridge International AS & A levels accepted by Yavapai College, the score required, the credit awarded and the recommended YC equivalent. Students should have their scores sent directly to the YC Registrar's office.

Exam	Score	Credits	YC Equivalent
Biology-AS Level	D	4	BIO 100
Biology-A Level	D E	8 4	BIO 181 & BIO 182 BIO 181
Chemistry-AS Level	D	4	CHM 130
Chemistry-A Level	A B or C D or E	10 5 4	CHM 151 & CHM 152 CHM 151 CHM 130
Economics-A Level	D	6	ECN 235 & ECN 236
Marine Science-A Level	D	4	BIO Dept Elective
Psychology-A Level	D or E	6	PSY 101 & PSY Elective
Psychology-AS Level	D or E	3	PSY 101

## **College Level Equivalency Exams**

College Level Examination Program examinations (CLEP) are administered by the Assessment and Testing Center. For information about the specific examinations administered and accepted by Yavapai College and fees involved, call 928.776.2200. For CLEP course titles and outlines of each course, go to <http://www.collegeboard.com/student/testing/clep/about.html>.

### **College Level Examination Program (CLEP) Table**

Students may earn credit by successfully completing CLEP examinations. Listed across are the CLEP subject areas accepted by Yavapai College, the credit awarded and the recommended Yavapai College equivalent. Only CLEP scores of 50 or better will be awarded credit (scoring exceptions are listed in the lower table). CLEP scores are not transferred to Yavapai College from another school's transcript. CLEP scores must be sent directly to the YC Registrar's Office.

Name of Exam	Credits	YC Equivalent
<b>Business</b>		
Introductory Business Law	3	Elective Credit
Financial Accounting	3	Elective Credit
Principles of Macroeconomics	3	ECN 235
Principles of Microeconomics	3	ECN 236
Principles of Management	3	MGT 220
Principles of Marketing	3	MGT 230
<b>Composition &amp; Literature</b>		
Analyzing & Interpreting Literature	3	Elective Credit
College Composition	3	ENG 101 or Elective Credit
<b>Education &amp; Behavioral and Social Sciences</b>		
Human Growth & Development	3	PSY 245
Introduction to Educational Psychology	3	EDU Dept Elective
Introductory Psychology	3	PSY 101
Introductory Sociology	3	SOC 101
<b>Science &amp; Mathematics</b>		
Biology	3	BIO Dept Elective
Pre-Calculus	5	MAT 187
Calculus	5	MAT 220
Chemistry	5	CHM 151
College Algebra	3	MAT 152

**Listed below are the College Level Examination Program (CLEP) subjects with scoring exceptions:**

<b>American Literature or English Literature</b>		
Score of 55	3	Elective Credit
<b>College Composition</b>		
Score of 60	3	ENG 101 or Elective Credit
<b>History of the U.S. I or History of the U.S. II</b>		
Score of 56	3	HIS 231 or HIS 232
<b>Natural Sciences</b>		
Score of 53	3	Elective Credit
Score of 56	6	Elective Credit
<b>Social Sciences &amp; History</b>		
Score of 56	3	Elective Credit
<b>Spanish Language</b>		
Score of 50	4	SPA 101
Score of 55	8	SPA 101 & SPA 102
Score of 66	12	SPA 101, SPA 102 & SPA 201
Score of 68	16	SPA 101, SPA 102, SPA 201 & SPA 202
<b>Western Civilization I or Western Civilization II</b>		
Score of 56	3	HIS 201 or HIS 202

## **DSST (formerly DANTES) Exam Table**

DSST (formerly DANTES Subject Standardized Tests) are credit-by-examination tests originated by the United States Department of Defense's Defense Activity for Non-Traditional Education Support (DANTES) program. Listed are the DSST subject areas accepted by Yavapai College, the score required, the credit awarded and the recommended YC equivalent. Students should have their scores sent directly to the YC Registrar's office.

<b>Exam</b>	<b>Score</b>	<b>Credits</b>	<b>YC Equivalent</b>
Environmental Science	400	3	Elective Credit
Lifetime Developmental Psychology	400	3	PSY 245
Substance Abuse	400	3	PSY 241

## **International Baccalaureate (IB) Table**

The International Baccalaureate (IB) Diploma Programme, offered in select high schools, is a rigorous 2-year course of precollege studies leading to exams that can be used to qualify for college credit. Listed are the IB subject areas accepted by Yavapai College, the score required, the credit awarded and the recommended YC equivalent. Students should have their scores sent directly to the YC Registrar's office.

<b>Exam</b>	<b>Score</b>	<b>Credits</b>	<b>YC Equivalent</b>
Biology- HL	4/5 6 or higher	4 8	BIO 100 BIO 181 & BIO 182
Business & Management - HL	5 or higher	3	Elective Credit
Chemistry - HL	4 5 or higher	5 10	CHM 151 CHM 151 & CHM 152
Economics - HL	5 or higher	6	ECN 235 & ECN 236
English A - HL	5 or higher	3	ENG 101 or Dept Elective
Geography - HL	5 or higher	4	GEO 105 (3) & Dept Elective (1)
Geography - SL	4 or higher	3	Dept Elective
History, Americas - HL	4 5 or higher	3 6	HIS 231 HIS 231 & HIS 232
History, Europe - HL	4 5 or higher	3 6	HIS 201 HIS 201 & HIS 202
Mathematics - HL	5 or higher	5	MAT 220
Music - HL	5 or higher	5	MUS 129 & MUS 240
Physics - HL	5 6 or higher	4 8	PHY 111 PHY 111 & PHY 112
Physics - SL	6 or higher	4	PHY 111
Psychology - HL	5 or higher	3	PSY 101
Social & Cultural Anthropology - HL	4 or higher	3	ANT 102
Spanish B - HL	4 5 or higher	8 8	SPA 101 & SPA 102 SPA 201 & SPA 202
Visual Arts - HL	4 5 or higher	3 6	ART 112 ART 110 & ART 112

## Emeriti Directory

AINSA, SERGE, *Modern Languages* (1974-2007)  
BAMRICK, MARY ANNE, *Business* (1969 -1993)  
BARKHURST, RODNEY, *Chemistry* (1981-2000)  
BARTELS, DIETER, *Social Sciences/Humanities* (1978-2011)  
BENNETT, JAMIE, *Geography* (1992-2007)  
BRANSON, EDWARD, *Art* (1969-2000)  
BREILING, ROY, *Music* (1995-2014)  
BRONANDER, ROY, *Biology* (1972-1996)  
BURNS, JAMES, *Music* (1969-1983)  
CATON, GERALD, *Accounting & Computer Science* (1988-2010)  
CHANDA, VIRGINIA "GINNY", *English* (1979-2006)  
DICKEY, ARCHIE, *Biology* (1974-1998)  
ELLIS, CARLEEN, *Nursing* (1976-1991)  
FARRAR, ELAINE, *Art* (1973-1992)  
FISHER, WILLARD, *Music* (1964-2011)  
FUEMMELER, GENNIE, *Teacher Education/Reading* (1996-2010)  
GALDE, DOROTHY ALTA, *English* (1969-1979)  
GLIDDEN, MOSES, *English* (1993-2011)  
GOLDEN, BARRY, *Biology/Chemistry* (1984 -2003)  
GOVEDICH, STEPHEN, *Psychology/Sociology* (1981-2003)  
HAMMOND, CAROL, *English* (1987-2010)  
HAYNES, JOHN, *English* (1969-1995)  
HINTON, JAMES, *Administration of Justice, Political Science, Sociology* (1974-2009)  
HOCHSTETTLER, DAVID, *Humanities/Honors* (1972-1993)  
KELLY, VINCE, *Art* (1971-1999)  
LANG, SUSAN, *English* (1983-2003)  
LONGFIELD, RICHARD, *Music* (1972-1993)  
MARCUSEN, RICHARD, *Art* (1971-2000)  
MERRITT, MARILYNN "LYNN", *Health, Physical Education & Recreation* (1969-1994)  
MIKULEWICZ, ROBERT, *Journalism* (1969-1981)  
MILES, JAMES "KIMO", *Health, Physical Education & Recreation* (1975-2004)  
MINKLER, LYLE, *Physical Science* (1969-1996)  
NUGENT, LYNN, *Nursing* (1979-2003)  
O'NEIL, KAREN, *Nursing* (1982-2003)  
PERLMUTTER, NINA, *Philosophy* (1994-2006)  
PETERSON, GLEN, *Art* (1973-1998)  
QUINTERO, GEORGE, *Registrar* (1969-1983)  
RAWLINGS, DONN, *English* (1985-2001)  
REISDORFER, KATHRYN, *Humanities* (1993-2009)  
ROBERTS, RUSS, *Business & Computer Science* (1982-2013)  
ROBERTS, W. BRENT, *Math* (1987-2013)  
SHERRILL, CLIFF, *Computer Science* (1982-2013)  
SIEH, DON, *English/Construction* (1971-1996)  
TRAVER, ROY, *Art* (2001-2014)  
VERBOUT, MARY, *English* (1991-2016)

# **Administration Directory**

## **President**

WILLS, PENELOPE, Ph.D.  
College President (2011)

## **Vice Presidents**

EWELL, CLINT, Ed.D.  
Vice President for Administrative Services (2010)

JENKINS, RODNEY, M.B.A.  
Vice President of Community Relations (2017)

LISS, RON, Ph.D.  
Vice President for Instruction and Student Development (2016)

## **Associate Vice Presidents**

FARNSWORTH, SCOTT, M.S., ATC/L  
Associate Vice President and Dean for Student Success  
Dean, School of Science & Engineering and School of Health & Wellness (1987)

SHELDahl, TANIA, M.Ed.  
Associate Vice President for Student Development (1986)

## **District Deans**

FISHER, JOAN, Ph.D.  
Dean, School of Arts & Humanities, School of Business & Computer Systems, and  
School of Social Sciences (2017)

GARVEY, DENNIS, M.S.W.  
Dean for Lifelong Learning (2002)

HILTON, STACEY, M.S.  
Dean of Instructional Support (2000)

MORGAN, JOHN, M.A.  
Dean, School of Career & Technical Education (1999)

PEREY, JAMES, Ed.D.  
Executive Dean/Campus Executive Officer for Sedona and Verde Valley  
Director of University/Governmental Relations (2003)

# Glossary of Terms

The following terms are often used at Yavapai College in written materials and in conversations with advisors and faculty. Use this guide to learn more about their meaning.

## A

**Ability to Benefit** - Term used to describe a student's chances of being successful in a college-level course of study. A high school diploma or a GED can be used to document the ability to benefit from college. "Ability to benefit" can also be established by obtaining appropriate scores in reading, writing and mathematics on the College's assessment tests. For more detailed information, see an advisor or financial aid specialist.

**Academic Advisement** - Consulting with a college advisor to develop a plan for fulfilling the requirements to reach an educational objective. Participating in the advisement process will minimize the loss of credits for students planning to transfer.

**Academic Calendar** - The College's Academic Calendar contains key dates important to every student, including holidays and the start and end dates of classes.

**Academic Honors List** - An honor bestowed upon students who demonstrate exemplary performance. To be eligible, a student must complete 12 or more credits in that semester with a grade point average of 3.5 or higher.

**Academic Probation** - A student is placed on Academic Probation (AP) if, while on Academic Warning, the student earns less than a 2.0 semester GPA in the subsequent semester (based on attempted credits). See Academic Information and Standards for further detail.

**Academic Renewal** - Academic Renewal allows a student who experienced academic difficulties during earlier attendance at Yavapai College to have grades for a particular period of time excluded from the calculation of the grade point average. All courses and grades remain on the student's permanent academic record.

**Academic Suspension** - A student is placed on Academic Suspension (AS) if, while on Academic Probation, the student does not achieve a cumulative GPA of 2.0 or above during the second semester of Academic Probation. See Academic Information and Standards for further detail.

**Academic Warning** - A student is placed on Academic Warning (AW) if the student has attempted 12 credits or more and earned a cumulative GPA of less than 2.0. See Academic Information and Standards for further detail.

**Add** - This term refers to the period of time when students can add an open class.

**Administrative Drop/Withdraw** - An instructor may drop or withdraw a student from a course for failure to attend class.

**Admission** - Students who complete the online college admission form are immediately admitted to the college and will receive credentials to enable registration for classes.

**Advising** - The College provides free advising services to all students for help with program planning and course selection.

**AGEC (Arizona General Education Curriculum)** - A common structure of general education agreed upon by all public colleges and universities in Arizona. The AGEC, a 35-credit general education component of the Associate degrees for transfer, fulfills lower-division general education requirements for students transferring to Arizona's public universities (Arizona State University, Northern Arizona University, and University of Arizona).

**Articulation** - The acceptance or transfer of coursework through special agreements. Yavapai College articulates transfer of courses to Arizona's public universities (Arizona State University, Northern Arizona University and University of Arizona).

**Associate Degree** - A degree awarded by a community college upon satisfactory completion of an organized program of study.

Requires the completion of a minimum number of credits with a certain combination of courses, including general education and major requirements. For more detailed information, see an advisor or refer to the "Degrees & Certificates" section of this catalog.

**Audit** - Students who audit a class attend class meetings but do not receive credit or a grade for the course.

## B

**Bachelors Degree** - A degree awarded by a four-year college or university after satisfactory completion of an organized program of study, usually requiring at least four years of full-time study.

# C

**Catalog** - The College Catalog is published online annually. The Catalog contains information about the policies and services of Yavapai College, including all degree and certificate programs, course requirements and descriptions, and student resources.

**Catalog Year** - The year in which a student begins a program of study, and subsequently maintains continuous enrollment. The requirements for the degree or certificate will be those which were in effect the catalog year the student began the program.

**CEG (Course Equivalency Guide)** - The CEG indicates how each of the public universities in Arizona accept 100- and 200-level courses in transfer from each community college. The CEG is available through campus advisors or online at AZTransfer.com.

**Class Standing** - *Freshman*: First year class standing; students who have between 0 and 29 cumulative credits. *Sophomore*: Second year standing; students who have between 30 and 59 cumulative credits.

**CLEP Test** - College Level Examination Program - Credit for prior or extra-institutional learning may be earned through successful scoring on general or subject area CLEP testing. Some disciplines have additional requirements to demonstrate accomplishment of learning outcomes (e.g. writing samples, laboratory).

**Continuous Enrollment** - Students maintaining continuous enrollment at any public Arizona community college or university may graduate from Yavapai College according to the requirements of the catalog in effect at the time of initial enrollment or according to the requirements of any single Yavapai College catalog in effect during subsequent terms of continuous enrollment.

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 standards stipulated above during two consecutive semesters (fall/spring) (fall/spring or spring/fall) are no longer considered continuously enrolled, and must meet requirements of the Yavapai College catalog in effect at the time they are readmitted or of any single catalog in effect during subsequent terms of continuous enrollment after readmission.

**Co-requisite** - A co-requisite refers to a related course that must be taken at the same time as another related course (e.g., science lecture and science lab).

**Core Requirements (Core Courses)** - Core courses are the required courses within a degree or certificate and must be completed with a grade of "C" or better.

**Credit Hour (Federal Definition)**: A credit hour is the amount of work represented in learning outcomes and verified by evidence of student achievement. It is an institutionally-established equivalency that is not less than: (1) one hour of classroom or direct faculty instruction and a minimum of two hours of out-of-class student work each week for approximately fifteen weeks for one semester hour of credit, or the equivalent amount of work over a different amount of time; or (2) at least an equivalent amount of work as required in paragraph one of this definition for other activities as established by an institution, including laboratory work, internships, practica, studio work, and other academic work leading toward the award of credit hours.

# D

**Drop** - This term refers to the period when students can drop a class. Dropped classes will not appear on an official academic transcript.

# E

**Educational Plan** - A written outline of all courses required to complete a specific program.

**Elective** - Elective courses are courses that are in addition to the core requirements of a program. Students choose electives based on a list specified by their program or in specific approved areas of interest. Electives must have a course number of 100 or higher to count toward graduation. Students should choose electives in consultation with their program advisor.

# F

**FAFSA** - The Free Application for Federal Student Aid (FAFSA) is a required form that must be completed as the first step in applying for many types of financial aid. This application can be found at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) or obtained at any campus Financial Aid Office.

**Family Contribution** - The sum of the parent and student contributions toward educational costs as determined by the need analysis.

**Federal Family Educational Loans (FFEL)** - Federal Loans for parents and students which are both need based and non-need based. Loans must be repaid with interest. Interest rate varies.

**Full-Time Student** - Students are considered full time if they are registered for twelve or more credit hours in a semester. (This definition may not apply to financial aid or veteran's benefits. Check with those departments for details.).

**Federal Work Study (FWS)** - Program in which students work part-time to earn a portion of their financial aid award.

**Financial Aid Package/Award** - An offer of financial aid which combines various forms of aid, typically from one or more sources.

**Financial Need** - The basis for most financial aid awards. Determined by subtracting the family contribution from an institution's cost of attendance.

## G

**General Education** - A plan of course work generally covering the areas of natural sciences, mathematics, communication skills, humanities, and critical thinking required to complete a degree.

**Good Standing** - To stay in good academic standing with the institution, a student must maintain a GPA of 2.0 or better and earn credit in at least one-half the credits for which registered.

**GPA/Grade point average** - The average grade earned by a student, figured by dividing the total grade points earned by the total credits completed.

**Grade Points** - The product of multiplying the value of a letter grade (A=4, B=3, C=2, D=1, F=0) by the credit value of a class. These points are used in computing a student's GPA.

**Graduate Degree** - An advanced degree (Master's or Doctorate) which is undertaken after completion of a Bachelor's degree.

## H

**Hold** - Students who owe fees or fail to return materials will have a hold placed on their record. This hold must be resolved before a student is permitted to register for further classes. Students should log in myYC if a hold is placed on their account for information on who to contact to clear their student account.

## I

**Incomplete Grade** - A grade of "I" (Incomplete) may be assigned by an instructor when a student has been unable to complete academic work for a class by the end of the term due to an unforeseeable emergency and justifiable reasons. To qualify, a student must have completed a significant majority of the work required for the class while maintaining a "C" average for work submitted and is capable of completing the remainder of the required work for this course.

**Independent Study** - Independent Study allows opportunities for academic learning beyond what the College provides in the normal curriculum. This may involve creating a course in a field where Yavapai has no courses at all, or it may involve creating courses more advanced or specialized than existing courses. Through this program, students can seek knowledge or skills not otherwise available in the College. Independent Study is an opportunity to award College credit for new academic learning rather than prior learning, cooperative job placement, work study or internships. Independent Study is not for non-college credit activities or for developmental studies.

**Internship** - Internships involve structured field experiences within specific academic disciplines or technical areas. These experiences enable students to explore potential careers and apply knowledge gained in the classroom while refining the technical skills and gaining relevant experience in the workplace.

## L

**Leveraging Educational Assistance Partnership Grant (LEAP)** - A type of grant available to students who are residents of Arizona. Awards are given on a first come-first-served basis.

**Lower Division** - Course work normally taken in the first two years of college, at the freshman and sophomore levels. Courses numbered 100-299 at Yavapai College are lower division.

## M

**Matriculation** - The completion of steps necessary for reaching an educational objective, including application, assessment, enrollment in classes, academic progress, and graduation or transfer.

## N

**Need Analysis** - The process of determining a student's eligibility for financial aid. The analysis involves establishing student expense budgets, determining the family contribution, and subtracting the family contribution from these expenses.

## O

**Orientation** - These workshops introduce new students to campus life and a host of resources intended to promote student success.

## P

**Part-time Student** - A part-time student is a student registered for fewer than twelve credit hours in a semester or fewer than six credits in the summer sessions.

**Pell Grant** - The primary federal grant program. These awards do not have to be repaid as long as the student makes satisfactory academic progress.

**Perkins Loan** - A federally subsidized loan program designed to assist students with the cost of their education. Perkins Loans have a fixed interest rate of 5%. Loan awards are given on a first-come-first-served basis.

**Prerequisite** - A prerequisite is a required course, level of learning, or assessment score required prior to enrollment in a specific class. Prerequisites are listed in the college catalog with the course description. A prerequisite waiver may be approved by an Instructional Dean where there is documentation/evidence that the student has comparable preparation.

## R

**Registration** - Registration is the process of selecting classes, processing selections online, and paying tuition and fees.

## S

**Schedule of Classes** - Yavapai College publishes an online listing of classes offered during the fall, spring, and summer terms. The schedule of classes contains all information needed to register for a class, including time, date, location, instructor, fees, and any enrollment restrictions.

**Semester** - A length of time that a school term lasts. Yavapai College has a 16-week semester.

**Supplemental Educational Opportunity Grant (SEOG)** One of the federal campus-based financial aid programs available at Yavapai College.

## T

**TBA (To Be Arranged)** - TBA is a term used in the Schedule of Classes to indicate that more information is forthcoming about the course. When TBA is found in the instructor column of the schedule, the course had not yet been assigned to a particular instructor at the time the schedule went to print.

**Transcript** - The permanent record of all classes taken while enrolled at a college or university. An official transcript is issued by the College Registrar and contains a master list of the courses a student has taken, the grades earned, and the cumulative grade point

average. Official transcripts can be requested at [www.getmytranscript.com](http://www.getmytranscript.com) or from the Office of the Registrar. Students can also view unofficial transcripts online via myYC.

**Transfer** - The process of moving from one college to another prior to completion of educational objective.

**Transfer Guide** - University Transfer Guides list the Yavapai College courses that transfer and fulfill degree requirements at ASU, NAU and the UA.

## U

**Units** - Also referred to as credit hours.

**Upper Division** - Course work normally taken in the third and fourth years of college, at the junior and senior levels. Courses numbered 300-499 are upper division. Yavapai College does not offer upper division courses.

## W

**Withdrawal** - A student's removal from registration for a class within a specified time period. A withdraw is recorded on the student's permanent transcript. Refer to "Dates and Deadlines" at [www.yc.edu](http://www.yc.edu) for semester-specific withdraw deadlines.

# **General Degree and Certificate Information**

**Yavapai College offers seven associate degree programs:**

- Associate of Arts
- Associate of Arts in Elementary Education
- Associate of Arts in Fine Arts
- Associate of Business
- Associate of General Studies
- Associate of Science
- Associate of Applied Science

## **Degree and Certificate Requirements**

In order to obtain any degree or certificate from Yavapai College, a candidate must:

1. Satisfy entrance requirements as a regular student;
2. Complete all courses required in one of the degree or certificate programs offered by Yavapai College. Occasionally, degree requirements change between the time of the student's admission and the time of graduation. A student in continuous enrollment at Yavapai College may elect to graduate by satisfying degree requirements as listed at the time of admission, at the time of graduation, or at any time during the last period of continuous attendance. Continuous attendance means enrollment in the regular session (fall/spring or spring/fall) of each academic year.  
If a course required for a degree or certificate has been deleted from the catalog, a comparable course will be substituted for the deleted course.  
Other substitutions are generally not permitted. However, a student who believes particular circumstances warrant special consideration may petition to the supervising dean.
3. Earn a grade of "C" or higher in a course for it to apply toward a Yavapai College degree or certificate, or for inclusion in a student's Arizona General Education Curriculum.
  - a. A maximum of 12 credit hours of "S" credit from 100- and 200- level courses may be applied toward any Yavapai College degree/certificate program. S/U grading is not an option for courses that are part of the Arizona General Education Curriculum (AGEC).
  - b. A maximum of 12 credit hours of Independent Study courses may be applied toward any Yavapai College degree/certificate program.
  - c. Special interest and developmental education courses (courses numbered below 100) will not be applied toward degrees and certificates.
  - d. Students may fulfill degree requirements after leaving Yavapai College by transferring back applicable credits earned at "regionally accredited" institutions of higher education. Students must adhere to the catalog requirements of their program of study during their last continuous enrollment at Yavapai College.
4. Earn a cumulative grade-point average of 2.00 or better in all work completed at Yavapai College;
5. Complete a minimum of fifteen semester hours in residence. If the certificate program requires 12-29 semester hours, a minimum of half the total hours must be completed in residence; if the certificate program requires 11 or fewer credits, all of the semester hours must be completed in residence.
6. A maximum of 30 credit hours by any combination of Experiential Learning (examination, special articulation agreement, or evaluation) will be accepted;
7. File a petition for graduation with Academic Advising no later than March 1. A student eligible for graduation at the end of the fall regular semester must petition for graduation no later than October 1;
8. Remove all marks of deficiency on the student's records thirty days prior to the day of commencement, if expecting to use credit in those subjects toward graduation;
9. Remove any indebtedness to the college.

## **Location of Degree Programs**

Yavapai College offers courses required for degrees and certificates in selected locations. The college does not guarantee that all courses for a degree or certificate will be offered at all locations. Please review the degree or certificate program information or a current class schedule for the location information.

## **Graduation with Honors**

A student who is awarded an associate degree and meets the following requirements is designated as graduating "with honors."

- Successfully completed a minimum of 30 semester hours at Yavapai College of courses numbered 100 and above
- The 30 semester hours must have been graded A-F
- Have a cumulative GPA of 3.50 or higher at Yavapai College

## **Multiple Degrees**

A student who has already earned an associate's degree at Yavapai College may earn a subsequent degree according to the following provisions:

1. General education requirements specified for each degree must be completed;
2. All major and related degree requirements specified in an Associate of Applied Science (AAS) degree program must be completed. If a specified course has already been applied to another degree or certificate program, that course competency may be applied to a subsequent AAS degree program;
3. Course substitutions approved for one degree program do not automatically apply to a subsequent degree program;
4. A minimum of 15 additional semester hours of major and related requirements, not applied to the first degree, must be completed at Yavapai College. These 15 hours will be in addition to any general education requirements needed to complete the subsequent degree;
5. An Associate of General Studies degree will not be awarded simultaneously with, or subsequent to, the awarding of any other associate degree. Other degrees may be earned concurrently as long as all of the requirements for each degree are met;
6. A subsequent degree must identify a specific area of study and be directed by an approved educational plan. Requirements for a subsequent degree program must be completed in accordance with the catalog in effect at the time the multiple degree proposal is approved. Students should consult an Academic Advisor for more information and to obtain a Petition for Multiple Degree.

## **Programs Requiring Selective Admission**

### **Requirements for Admission to the Aerospace Science Programs**

An application packet is available from the Academic Advising Center. For detailed admission requirements, please call 776.2002.

### **Requirements for Admission to the Gunsmithing Program**

An information/application packet for admission into this program is available online at [www.yc.edu/gunsmithing](http://www.yc.edu/gunsmithing) or through the Academic Advising Center.

### **Requirements for Admission to the Freeport-McMoRan Mining Program**

Students must be at least 18 years of age and must attend the Mining Preview Day held the first Saturday in March annually at Yavapai College. Students accepted into the program must interview with Freeport-McMoRan and be hired as an employee, pass a drug and alcohol test, and complete a security background check. An information packet is available from the CTEC Campus by calling 717.7107 or 776.2002.

### **Requirements for Admission to the Nursing Program**

Admission to the program occurs in the Fall and in the Spring semesters. Students must have an Arizona Department of Public Safety Fingerprint Clearance Card; immunizations as outlined in application; pre-requisites completed; and must pass a standardized Pre-Admission Exam. Additional information and an application packet are available online at [www.yc.edu/nursing](http://www.yc.edu/nursing).

### **Requirements for Admission to the Nursing Assistant Certificate Program**

Students must be at least 16 years of age; have an Arizona Department of Public Safety Fingerprint Clearance Card; TB skin test or chest X-ray specifying absence of tuberculosis; CPR for Healthcare Providers card; and math and reading proficiency. An application for the program is available online at [www.yc.edu/nursingassistant](http://www.yc.edu/nursingassistant).

## **Requirements for Admission to the Paramedicine Program**

Information regarding admission to the Paramedicine program is available at the Emergency Medical Services Department, Prescott Campus. Students who are interested begin by filling out an application, followed by pre-entrance exams and interviews. Once accepted into the program, information regarding specific documentations needed will be given each student. Before applying one must have a current Arizona EMT-B card. We strongly recommend one year experience working in the field before beginning class. For more information contact Michael Nelson at michael.nelson@yc.edu.

## **Requirements for Admission to the Pharmacy Technician Certificate Program**

Students must be at least 18 years of age prior to the start of the third semester of the program and have a high school diploma or GED; an Arizona Department of Public Safety Fingerprint Clearance Card; TB skin test or chest X-ray specifying absence of tuberculosis; CPR for Healthcare Providers card; immunizations outlined in application; reading proficiency. Admission to program is once yearly in the summer session. An application for the program is available online at [www.yc.edu/pharmacy](http://www.yc.edu/pharmacy).

## **Requirements for Admission to the Radiologic Technology Program**

An information packet is available from the Academic Advising Center, or online at: [www.yc.edu/radiology](http://www.yc.edu/radiology).

## **Continuous Enrollment**

A semester in which a degree or certificate seeking student earns course credit required for their declared program of study 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 standards stipulated above during two consecutive semesters (fall/spring or spring/fall) are no longer considered continuously enrolled, and must meet requirements of the Yavapai College catalog in effect at the time they are readmitted or of any single catalog in effect during subsequent terms of continuous enrollment after readmission.

## General Education

**General Education** is the core and foundation of the American educational experience, defining a set of values, skills and ideas that give a sense of coherence and connectedness to the learning process. Yavapai College recognizes that general education is essential for personal and intellectual growth, an effective and innovative workforce, and a successful and vibrant civic society; and is committed to providing students with both curricular and co-curricular experiences that facilitate these important ends. Yavapai College's General Education program is designed to encourage curiosity and an active interest in the world; practical, disciplined thinking; the development of personal and civic values; and a willingness to acknowledge and appreciate diverse cultural and historical perspectives.

There are two aspects to Yavapai College's General Education program: the AGEC (Arizona General Education Curriculum) and the YC GECCO (Yavapai College General Education Core Curriculum Outcomes). The former, mandates by the state of Arizona, ensures that transfer students encounter the topics and disciplines of a traditional liberal arts education. The latter is Yavapai College's own articulation of the values, skills and knowledge that higher education should address, and applies to all degrees granted by the college.

**Arizona General Education Curriculum (AGEC)** - The public universities and community colleges in Arizona have agreed to three transfer general education programs. These general education transfer programs are referred to collectively as the Arizona General Education Curriculum (AGEC). This agreement ensures that the completion of the general education block of courses at Yavapai College will allow students to transfer lower division general education courses to any of the Arizona public universities without losing credits. **Courses applied to the Arizona General Education Curriculum (AGEC) may not be taken for Satisfactory/Unsatisfactory (S/U) grading.**

Three certificate programs have been designated to complete the specific 35 semester hour general education blocks of the AGEC requirements. These certificates are:

- a. Arizona General Education Curriculum A-AGEC-A fulfills the lower division general education requirements of liberal arts majors (e.g., social science, fine arts, humanities).
- b. Arizona General Education Curriculum B-AGEC-B fulfills the lower division general education requirements of business majors.
- c. Arizona General Education Curriculum S-AGEC-S fulfills the lower division general education requirements of majors with more stringent mathematics and mathematics-based science requirements.

Five degrees have been designated to include the specific 35-38 semester hour general education blocks. These degrees are:

- a. Associate of Arts-AGEC-A
- b. Associate of Arts in Elementary Education-AGEC-A
- c. Associate of Arts in Fine Arts-AGEC-A
- d. Associate of Business-AGEC-B
- e. Associate of Science-AGEC-S

See individual degree and certificate programs for specific completion requirements. If the student does not complete the AGEC at Yavapai College, the same transfer status may not be granted by an Arizona public university as those who have completed the AGEC. Failing to complete the AGEC will result in having courses evaluated on a course-by-course basis by the transfer university. Some majors, particularly in the professional fields, have specific prerequisites and/or program requirements that will not transfer within one of the three general education programs described in this section. Students should check with an advisor to confirm the status of such a major program. Since university requirements can change from year-to-year, it is advisable to maintain regular contact with an academic advisor.

**Yavapai College's General Education Core Curriculum Outcomes (GECCO)** are a set of key ideas and skills that cross the curriculum to define the essence of a college education and provide students with experiences and ideas that transcend any individual course, certificate or degree. The GECCO provides students with opportunities to cultivate successful academic and work habits, to form and refine values, and to master a broad range of abilities that are needed in today's competitive and complex society. Yavapai College commits to ensuring that all students who graduate with an Associate degree or AAS degree in any discipline or occupation demonstrate proficiency in the General Education Core Curriculum Outcomes during the course of their studies. The General Education Core Curriculum Outcomes ensure that every Yavapai College degree or AGEC graduate will be able to:

- Generate, access, categorize, evaluate and use information in an efficient and ethical manner and use 21st century technologies to communicate and work effectively (Digital Literacy and Information Literacy)
- Reason logically and evaluate the reasoning of others through the utilization of open-mindedness, critical inquiry, and the rational assessment of data and text; generate original questions and support answers; and devise creative solutions to problems and evaluate their effectiveness (Critical Thinking and Creativity)
- Communicate ideas effectively in a variety of formats and be able to extract and construct meaning from the communication of others (Oral Communication and Written Communication)

- Recognize the diversity of human experiences; the influences of history, culture, socio-economic status and the physical environment on worldview; and the individual's role in local, national and global communities (Diversity Awareness and Civic Engagement)
- Use mathematical and scientific information, tools, theories and models to understand the physical world; and to identify, apply, and integrate concepts from science and mathematics to understand complex, real life problems and to develop informed conclusions and solutions (Quantitative and Scientific Literacy)

Several of these categories overlap with the AGEC requirements mandated by the state of Arizona for all community college General Education courses intended for transfer to a state university.

**FOUNDATION studies** in English and Mathematics are essential to independent thinking, to making a connection with the world of learning and to communicating those connections. In FOUNDATION courses, students are introduced to and practice thoughtful and precise writing and speaking skills, critical reading, quantitative literacy, and the process of analysis and synthesis that underlie logical reasoning. Foundation studies are comprised of the Communication and Quantitative Literacy categories.

**CORE studies** focus on the conceptual frameworks through which the student may approach an issue. CORE studies classes serve to introduce students to the profound influence that the past has upon the present, while also ensuring that those students have the skills and knowledge necessary to critically evaluate those influences. To complete their Core Studies AGEC requirement, students must take one course in Historical Perspective and one in Critical Thinking.

**AREA studies** link FOUNDATION skills in thinking and communicating and the CORE emphasis on conceptual frameworks to the content of academic disciplines. AREA courses demonstrate that the study of specialized subject matter can be drawn into the central dialogues of General Education. AREA studies courses include topics in Arts and Humanities, Social and Behavioral Sciences, and Physical and Biological Sciences.

# General Education Requirements

General Education courses generally require critical reading and thoughtful writing. Students with college-level reading and writing skills have the foundation necessary for success.

In some cases a specific degree program may require the student to select particular courses, rather than to select freely from the list of approved General Education courses. The student should follow requirements of their specific degree program to ensure graduation and transfer of credits. Students are encouraged to meet regularly with an academic advisor to build an educational plan. Approved General Education courses are listed below, in their respective categories.

**AGEC - Special Requirements** incorporate additional university requirements. These are not separate courses, but instead are topics that, upon completion of an AGEC certificate, students will have encountered in their required course of study.

**Intensive Writing and Critical Inquiry (IWR)** - At least one course beyond the First-Year Composition requirement shall involve the development of competence in written discourse and involve the gathering, interpretation, and evaluation of evidence.

## Awareness Areas

1. **Ethnic/Race/Gender (ERG) Awareness** - One course emphasizing ethnic/race/gender awareness is required.
2. **Global/International or Historical (GIH) Awareness** - One course emphasizing contemporary global/international awareness or historical awareness is required.

General Education courses at Yavapai College are grouped into three categories:

Foundation Studies, Core Studies, and Area Studies

**IMPORTANT NOTE:** Students may not use the same course to meet both a Core Studies and Area Studies requirement.

## A. Foundation Studies

1. College Composition or Applied Communications Requirement. Approved course sequences are listed in each degree program.
2. Numeracy (Quantitative Literacy) Requirement. Approved courses are listed in each degree program.

## B. Core Studies

### 1. Historical Perspective Requirement. Approved courses are:

- HIS 201 - Western Civilization I **Credits:** 3 IWR ERG GIH
- HIS 205 - World History **Credits:** 3 IWR ERG GIH
- HIS 231 - United States History I **Credits:** 3 IWR ERG GIH
- HIS 232 - United States History II **Credits:** 3 IWR ERG GIH

### 2. Critical Thinking. Approved courses are:

- AHS 230 - Complementary and Integrative Health Therapies **Credits:** 3
- AJS 123 - Ethics and Criminal Justice **Credits:** 3
- BSA 118 - Practical Creative Thinking and Problem Solving **Credits:** 3
- CHP 190 - Honors Colloquium **Credits:** 1
- Note: *CHP 190 Honors Colloquium is only available to those students admitted into the Honors Program and fulfills the Critical Thinking requirement when completed for three semesters successfully.*
- COM 217 - Introduction to Argumentation and Debate **Credits:** 3
- EDU 210 - Cultural Diversity in Education **Credits:** 3 ERG
- ENG 140 - Reading the World: **Credits:** 3
- GEO 210 - Society and Environment **Credits:** 3

- HUM 100 - Gateway to the Humanities **Credits:** 3
- HUM 101 - Introduction to Popular Culture **Credits:** 3
- PHI 103 - Introduction to Logic **Credits:** 3
- PHI 105 - Introduction to Ethics **Credits:** 3
- PHI 110 - Introduction to Critical Thinking **Credits:** 3
- PHI 204 - Ethical Issues in Health Care **Credits:** 3
- STU 230 - Leadership Development Studies **Credits:** 3

## C. Area Studies

### 1. Physical and Biological Science Requirement. Approved courses are:

- AGS 103 - Plant Biology **Credits:** 4
- AHS 160 - Introduction to Human Anatomy and Physiology **Credits:** 4
- BIO 100 - Biology Concepts **Credits:** 4 \*
- BIO 103 - Plant Biology **Credits:** 4
- BIO 105 - Environmental Biology **Credits:** 4
- BIO 156 - Human Biology for Allied Health **Credits:** 4 \*
- BIO 160 - Introduction to Human Anatomy and Physiology **Credits:** 4
- BIO 181 - General Biology I **Credits:** 4
- BIO 182 - General Biology II **Credits:** 4
- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 205 - Microbiology **Credits:** 4
- CHM 130 - Fundamental Chemistry **Credits:** 4
- CHM 138 - Chemistry for Allied Health **Credits:** 5
- CHM 151 - General Chemistry I **Credits:** 5
- CHM 152 - General Chemistry II **Credits:** 5
- 
- CHM 235 - General Organic Chemistry I **Credits:** 4 AND
- CHM 235L - General Organic Chemistry I Lab **Credits:** 1
- 
- ENV 105 - Environmental Biology **Credits:** 4
- ENV 110 - Environmental Geology **Credits:** 4
- GEO 103 - Introduction to Physical Geography **Credits:** 4
- GEO 212 - Introduction to Meteorology **Credits:** 4
- GLG 101 - Introduction to Geology I **Credits:** 4
- GLG 102 - Introduction to Geology II **Credits:** 4
- GLG 110 - Environmental Geology **Credits:** 4
- PHY 100 - Introduction to Astronomy **Credits:** 4
- PHY 111 - General Physics I **Credits:** 4
- PHY 112 - General Physics II **Credits:** 4
- PHY 150 - Physics for Scientists and Engineers I **Credits:** 5
- PHY 151 - Physics for Scientists and Engineers II **Credits:** 5

### Note:

\*Duplicate credit for BIO 100 and BIO 156 will not be awarded.

## **2. Arts and Humanities Requirement. Approved courses are:**

- ART 200 - Art History I **Credits:** 3 IWR ERG GIH
- ART 201 - Art History II **Credits:** 3 IWR ERG GIH
- ART 202 - History of Modern and Contemporary Art **Credits:** 3 IWR ERG GIH
- ENG 211 - British Literature: Beginning to 18th Century **Credits:** 3 IWR ERG
- ENG 212 - British Literature 1798 to Present **Credits:** 3 IWR ERG
- ENG 217 - Major Issues in World Literature **Credits:** 3 IWR ERG
- ENG 219 - Major Issues in Modern and Contemporary Drama **Credits:** 3 IWR ERG
- ENG 230 - Introduction to Literature **Credits:** 3 IWR
- ENG 237 - Women in Literature **Credits:** 3 IWR ERG
- ENG 240 - American Literature to 1865 **Credits:** 3 IWR ERG
- ENG 241 - American Literature 1865 to Present **Credits:** 3 IWR ERG
- ENG 242 - Introduction to Shakespeare **Credits:** 3 IWR ERG
- ENG 298 - Special Topics in Literature **Credits:** 3 IWR
- HUM 202 - Introduction to Mythology **Credits:** 3 IWR
- HUM 205 - Technology and Human Values **Credits:** 3 IWR
- HUM 236 - American Arts and Ideas **Credits:** 3 IWR ERG
- HUM 241 - Humanities in the Western World I **Credits:** 3 IWR ERG
- HUM 242 - Humanities in the Western World II **Credits:** 3 IWR ERG
- HUM 243 - History of Film **Credits:** 3 IWR
- HUM 248 - Introduction to Folklore **Credits:** 3 IWR
- HUM 250 - American Cinema **Credits:** 3 IWR
- HUM 260 - Intercultural Perspectives **Credits:** 3 IWR ERG
- MUS 240 - Music Appreciation **Credits:** 3 IWR
- MUS 245 - Music of World Cultures **Credits:** 3 IWR
- PHI 101 - Introduction to Philosophy **Credits:** 3
- PHI 122 - Science, Religion and Philosophy **Credits:** 3
- PHI 210 - Environmental Ethics and Philosophy **Credits:** 3 IWR
- REL 201 - Comparative Religions **Credits:** 3 IWR
- REL 203 - Native Religions of the World **Credits:** 3 IWR
- REL 273 - Introduction to Jewish Studies **Credits:** 3 IWR ERG
- SPA 135 - Introduction to Spanish Literature **Credits:** 3 ERG GIH
- SPA 201 - Intermediate Spanish I **Credits:** 4 ERG GIH
- SPA 202 - Intermediate Spanish II **Credits:** 4 ERG GIH
- THR 135 - Introduction to the Theater **Credits:** 3
- THR 219 - Major Issues in Modern and Contemporary Drama **Credits:** 3 IWR ERG
- THR 250 - American Cinema **Credits:** 3 IWR

## **3. Behavioral Science Requirement. Approved courses are:**

- ECE 210 - Infant and Toddler Development **Credits:** 3
- ECE 234 - Child Development **Credits:** 3
- GRN 101 - Psychology of Aging **Credits:** 3
- GRN 102 - Health and Aging **Credits:** 3
- PHE 152 - Personal Health and Wellness **Credits:** 3
- PHE 205 - Stress Management **Credits:** 3
- PSY 101 - Introductory Psychology **Credits:** 3
- PSY 132 - Cross Cultural Psychology **Credits:** 3 ERG
- PSY 234 - Child Development **Credits:** 3
- PSY 238 - Psychology of Play **Credits:** 3 ERG
- PSY 240 - Personality Development **Credits:** 3
- PSY 245 - Human Growth and Development **Credits:** 3
- PSY 277 - Human Sexuality **Credits:** 3 ERG

#### **4. Social Science Requirement. Approved courses are:**

- ANT 101 - Stones, Bones, and Human Origins **Credits:** 3
- ANT 102 - Introduction to Cultural Anthropology **Credits:** 3 <sup>ERG</sup>
- ANT 104 - Buried Cities and Lost Tribes **Credits:** 3
- ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective **Credits:** 3 <sup>ERG</sup>
- ANT 231 - Southwestern Archeology **Credits:** 3
- ANT 232 - Indians of the Southwest **Credits:** 3 <sup>ERG</sup>
- ECN 235 - Principles of Economics-Macro **Credits:** 3
- GEO 101 - World Geography West **Credits:** 3 <sup>GIH</sup>
- GEO 102 - World Geography East **Credits:** 3 <sup>GIH</sup>
- GEO 105 - Introduction to Cultural Geography **Credits:** 3 <sup>ERG GIH</sup>
- SOC 101 - Introduction to Sociology **Credits:** 3 <sup>ERG</sup>
- SOC 140 - Sociology of Intimate Relationships and Family **Credits:** 3 <sup>ERG</sup>
- SOC 142 - Race and Ethnic Relations **Credits:** 3 <sup>ERG</sup>
- SOC 212 - Gender and Society **Credits:** 3 <sup>ERG</sup>
- SOC 250 - Social Problems **Credits:** 3 <sup>ERG</sup>

#### **Communication Requirement**

Three credit hours of communication coursework are required for the Associate of Arts, Associate of Business, and Associate of Science and Associate of General Studies degrees. Approved courses are:

- COM 100 - Introduction to Human Communication **Credits:** 3
- COM 131 - Fundamentals of Speech Communication **Credits:** 3
- COM 134 - Interpersonal Communication **Credits:** 3
- COM 200 - Communication Theory **Credits:** 3
- COM 271 - Small Group Communication **Credits:** 3

# Degrees & Certificates

∞ - Program Available Online

## Associate of Arts ∞

### Credit Hours Required: 60

The Associate of Arts degree requires completion of 60 credit hours. This degree is designed to enable a student to transfer to a baccalaureate-granting institution. Students following this degree program will complete university-parallel requirements in general education that will fulfill all lower division general education requirements at the Arizona universities.

**Students preparing to transfer to an upper-division baccalaureate degree program should contact an academic advisor in the major field of study at the transfer institution in addition to meeting regularly with an academic advisor at Yavapai College.**

Regular advisement is important to build an educational plan and ensure transferability of general education, elective, and major courses.

**Note:** The Arizona General Education Curriculum (AGEC-A) is embedded in the Associate of Arts degree. Upon completion of all 35 credit hours (including the Special Requirements) of the AGEC with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGEC upon admission to one of the state universities in Arizona.

**Students must complete a course from each of the following AGEC Special Awareness areas:**

- Intensive Writing/Critical Inquiry (IWR)
- Ethnic/Race/Gender (ERG) Awareness
- Global/International or Historical (GIH) Awareness

**∞ Note:** This program can be completed entirely online. Not all general education options or major and elective studies are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.

### AGEC-A Requirements (35 credits)

- A. Foundation Studies (9 credits)
  - 1. College Composition **Credits:** 6
  - 2. Numeracy **Credits:** 3
- B. Core Studies (6 credits)
  - 1. Historical Perspective **Credits:** 3
  - 2. Critical Thinking **Credits:** 3
- C. Area Studies (20 credits)
  - 1. Physical and Biological Science **Credits:** 8
  - 2. Arts and Humanities **Credits:** 6
  - 3. Behavioral Science **Credits:** 3
  - 4. Social Science **Credits:** 3

### Communication Requirement (3 credits)

You may select from the following courses to fulfill the requirements of the Communication component of this degree.

- COM 100 - Introduction to Human Communication **Credits:** 3
- COM 131 - Fundamentals of Speech Communication **Credits:** 3
- COM 134 - Interpersonal Communication **Credits:** 3
- COM 200 - Communication Theory **Credits:** 3
- COM 271 - Small Group Communication **Credits:** 3

## Major and Elective Studies (22 credits)

Go to [http://www.aztransfer.com/major\\_guides/](http://www.aztransfer.com/major_guides/) for additional information about transfer and majors. It is recommended that you meet with an Academic Advisor to assist you with choosing courses.

Note: Table was revised October 22, 2018. Visit the [Catalog Addendum](#) for more information.

<b>Major</b>
Administration of Justice Studies
Anthropology
Communication
English
Exercise Science/PE-Health
Geography
History
Humanities
Mathematics
Modern Languages
Philosophy
Psychology
Religious Studies
Social Work
Sociology

\*AZTransfer Major Guides link associate's degrees to their related bachelor's degrees for majors that are offered by two or more of Arizona's public universities.

If you are unsure of your major or the University that you will attend, you may select from the following prefixes - or courses where noted - when completing this requirement: ACC, AGE, AGS, AJS 230 (only), AJS (except AJS 291), ANT, ART, ASL, BIO, BSA, CHM, CHP, COM, CRW, CSA, CSC, DAN\*, ECE, ECN, EDU, ENG, ENV, FMA, FYE, GEO, GLG, GRN, HIS, HUM, JRN, MAT (except MAT 100), MGT, MUS, NSG (except NSG 124), NTR, PHE\*, PHI, PHY, POS, PSY, REC\*, REL, SOC, SPA, STU, THR, VGD, and WEB. \*DAN, PHE and REC are limited to 4 activity-based credit hours each.

## Transfer Resources

The following tools are provided to assist students who are planning to transfer to Arizona Universities.

- Majors & Degrees Guide - AZTransfer
  - Major guides link associate's degrees to their related bachelor's degrees for majors that are offered by two or more of Arizona's public universities.
- Course Equivalency Guide - AZTransfer
  - The Course Equivalency Guide (CEG) shows students how community college courses transfer to Arizona State University, Northern Arizona University, and University of Arizona. This guide can assist you when choosing your major and elective studies.
- ASU Transfer Admissions Guarantee (TAG)
  - The Transfer Admission Guarantee, or TAG, helps you plan and complete your Arizona community college coursework to meet the lower-division course requirements for your ASU major. When you complete the TAG, you'll be on track and prepared for success in earning your bachelor's degree.
- NAU Jacks Path
  - Jacks Path allows you see the courses you can take at Yavapai College, how your credits transfer to NAU, your progress toward completing your NAU degree, and what you'll take at NAU to earn your bachelor's degree.
- UA Bridge Program
  - The UA Bridge program is a partnership between several Arizona community colleges and the University of Arizona that provides a clear path to pursuing your UA bachelor's degree.

# Associate of Arts in Elementary Education

## Credit Hours Required: 62

The vision for the Teacher Preparation Program at Yavapai College is one of a quality program that adapts to the dynamic needs of students, children, their families and the community.

The YC Teacher Education Program serves:

1. Students interested in pursuing careers in teaching in public and private infant-grade 12 schools and Child Care Centers.
2. Students who transfer to four year programs in Early Childhood/Elementary Education or Secondary Education.
3. In-service teachers seeking to improve their teaching skills through additional coursework and/or professional development activities.

The Associate of Arts in Elementary Education degree requires completion of 62 credit hours. This degree is designed for students interested in elementary education who are preparing to transfer to one of the Arizona public universities to complete a baccalaureate program and qualify for an Arizona teaching certificate.

**Students preparing to transfer to an upper-division baccalaureate degree program should contact an advisor in the major field of study at the transfer institution in addition to meeting regularly with a faculty advisor and/or academic advisor at Yavapai College.**

Regular advisement is important to build an educational plan and ensure transferability of general education, elective, and major courses.

**Note:** The Arizona General Education Curriculum (AGEC-A) is embedded in the Associate of Arts in Elementary Education degree. Upon completion of all 35 credit hours (including the Special Requirements) of the AGEC with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGEC upon admission to one of the state universities in Arizona.

**Students must complete a course from each of the following AGEC Special Awareness areas:**

- Intensive Writing/Critical Inquiry (IWR)
- Ethnic/Race/Gender (ERG) awareness
- Global/International or Historical (GIH) awareness

## AGEC-A Requirements (35 credits)

- A. Foundation Studies (9 credits)
  1. College Composition **Credits:** 6
  2. Numeracy **Credits:** 3
- B. Core Studies (6 credits)
  1. HIS 231 (Historical Perspective) **Credits:** 3 IWR ERG GIH
  2. Critical Thinking **Credits:** 3
- C. Area Studies (20 credits)
  1. Physical and Biological Science **Credits:** 8  
**Note:** Select and complete two laboratory science courses from the approved list of General Education Courses in two of the following categories: a. Life: Biology, Environmental Science, Botany, Anatomy (4); b Physical: Geography, Physics, Chemistry (4); c. Earth/Space: Astronomy, Geology (4)

2. Arts and Humanities **Credits:** 6
3. ECE 234 (Behavioral Science) **Credits:** 3
4. Social Science **Credits:** 3

## Communication Requirement (3 credits)

You may select from the following courses to fulfill the requirements of the Communication component of this degree.

- COM 100 - Introduction to Human Communication **Credits:** 3
- COM 131 - Fundamentals of Speech Communication **Credits:** 3
- COM 134 - Interpersonal Communication **Credits:** 3
- COM 200 - Communication Theory **Credits:** 3
- COM 271 - Small Group Communication **Credits:** 3

## Major and Elective Studies (24 credits)

- AJS 290 - Constitutional Law: Civil Liberties and Civil Rights **Credits:** 3
- CSA 110 - Introduction to Computer Information Systems **Credits:** 3
- ECE 240 - Family and Community Partnerships **Credits:** 3
- EDU 200 - Introduction to Education **Credits:** 3
- EDU 210 - Cultural Diversity in Education **Credits:** 3<sup>ERG</sup>
- EDU 222 - Introduction to the Exceptional Learner **Credits:** 3
- MAT 156 - Mathematics for Elementary Teachers I **Credits:** 3
- MAT 157 - Mathematics for Elementary Teachers II **Credits:** 3

## Program Outcomes

Upon successful completion of the Associate of Arts in Elementary Education Degree program, the learner will be able to:

1. Create a personal philosophy of education and relate it to a future career in education. (EDU 200, EDU/ECE 222)
2. Design and present appropriate classroom activities intended to achieve specific student learning outcomes. (AJS 290, EDU 200)
3. Analyze teaching styles as they relate to student learning styles. (EDU 200, EDU 210, EDU/ECE 222, MAT 156, MAT 157)
4. Compare and contrast the concepts of multicultural education and its implementation in the public school classroom. (AJS 290, ECE 240, EDU 210)
5. Examine how the concepts of equity and equal educational opportunity have evolved into educational policy. (AJS 290, ECE 240, EDU 210, EDU/ECE 222)
6. Examine society's historical identification and treatment of exceptional children and youth. (AJS 290, EDU 210, EDU/ECE 222)
7. Argue the relative effects of parents, siblings, peers, teachers, the community, and culture on child development. (EDU/ECE 222, ECE 240)
8. Utilize technology to organize information, analyze and evaluate data, and complete tasks more efficiently. (CSA 110, EDU 210)
9. Argue the relative effects of parents, siblings, peers, teachers, the community, and culture on child development. (EDU/ECE 222, ECE 240)
10. Utilize technology to organize information, analyze and evaluate data, and complete tasks more efficiently. (CSA 110, EDU 210)

# Associate of Arts in Fine Arts

## Credit Hours Required: 64

The Associate of Arts in Fine Arts degree requires completion of 64 credit hours. This degree is designed to enable a student to transfer to a baccalaureate-granting institution. Students following this degree program will complete university-parallel requirements in general education that will fulfill all lower division general education requirements at the Arizona universities. The AAFA degree will also allow students to declare a concentration in Art, Music or Performing Arts. This degree outline provides the list of fine art concentration core requirements and elective options.

**Students preparing to transfer to an upper-division baccalaureate degree program should contact an advisor in the major field of study at the transfer institution in addition to meeting regularly with a faculty advisor and/or an academic advisor at Yavapai College.**

Regular advisement is important to build an educational plan and ensure transferability of general education, elective, and major courses.

**Note:** *The Arizona General Education Curriculum (AGEC-A) is embedded in the Associate of Arts in Fine Arts degree. Upon completion of all 35 credit hours (including the Special Requirements) of the AGEC with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGEC upon admission to one of the state universities in Arizona.*

**Students must complete a course from each of the following AGEC Special Awareness areas:**

- Intensive Writing/Critical Inquiry (IWR)
- Ethnic/Race/Gender (ERG) Awareness
- Global/International or Historical (GIH) Awareness

## AGEC-A Requirements (35 credits)

- A. Foundation Studies (9 credits)
  1. College Composition **Credits:** 6
  2. Numeracy **Credits:** 3
- B. Core Studies (6 credits)
  1. Historical Perspective **Credits:** 3
  2. Critical Thinking **Credits:** 3
- C. Area Studies (20 credits)
  1. Physical and Biological Science **Credits:** 8
  2. Arts and Humanities **Credits:** 6 - Choose Option a, b or c:
    - a. Art Concentration
    - b. Music Concentration
    - c. Performing Arts Concentration
  3. Behavioral Science **Credits:** 3
  4. Social Science **Credits:** 3

## Communication Requirement (3 credits)

You may select from the following courses to fulfill the requirements of the Communication component of this degree.

- COM 100 - Introduction to Human Communication **Credits:** 3
- COM 131 - Fundamentals of Speech Communication **Credits:** 3
- COM 134 - Interpersonal Communication **Credits:** 3
- COM 200 - Communication Theory **Credits:** 3
- COM 271 - Small Group Communication **Credits:** 3

## Major and Elective Studies (26 credits)

Choose Art, Music or Performing Arts Concentration

## Art Concentration

### Art Core Requirements (17 credits)

- ART 110 - Drawing I **Credits:** 3
- ART 112 - Two-Dimensional Design **Credits:** 3
- ART 113 - Three-Dimensional Design **Credits:** 3
- ART 114 - Color **Credits:** 3
- ART 137 - Adobe Photoshop I **Credits:** 3
- ART 232 - Portfolio Development **Credits:** 2

### Art Electives: Select 9 credit hours

- ART 111 - Drawing II **Credits:** 3
- ART 120 - Ceramics I **Credits:** 3
- ART 121 - Ceramics II **Credits:** 3
- ART 140 - Jewelry I **Credits:** 3
- ART 141 - Jewelry II **Credits:** 3
- ART 144 - Furniture and Woodworking I **Credits:** 3
- ART 145 - Furniture and Woodworking II **Credits:** 3
- ART 154 - Digital Photography I **Credits:** 3
- ART 157 - Digital Photography II **Credits:** 3
- ART 160 - Printmaking I **Credits:** 3
- ART 162 - Monoprint I **Credits:** 3
- ART 180 - Sculpture I **Credits:** 3
- ART 181 - Sculpture II **Credits:** 3
- ART 182 - Sculpture: Welded Metal I **Credits:** 3
- ART 183 - Sculpture: Welded Metal II **Credits:** 3
- ART 190 - Oil/Acrylic Painting I **Credits:** 3
- ART 194 - Watercolor I **Credits:** 3
- ART 195 - Watercolor II **Credits:** 3
- ART 196 - Portraiture I **Credits:** 3
- ART 202 - History of Modern and Contemporary Art **Credits:** 3 IWR ERG GIH
- ART 210 - Life Drawing I **Credits:** 3
- ART 211 - Life Drawing II **Credits:** 3
- ART 212 - Life Painting **Credits:** 3

## Music Concentration

### Music Core Requirements (22 credits)

- MUS 103 - Piano Class I **Credits:** 1
- MUS 104 - Piano Class II **Credits:** 1
- MUS 131 - Basic Integrated Theory I **Credits:** 4
- MUS 132 - Basic Integrated Theory II **Credits:** 4
- MUS 151 - Applied Music **Credits:** 2
- MUS 151 - Applied Music **Credits:** 2  
**Note:** *MUS 151 must be completed two times totaling 4 credit hours.*
- MUS 231 - Advanced Integrated Theory I **Credits:** 4
- MUS 232 - Advanced Integrated Theory II **Credits:** 4

## Music Electives: Select 4 credit hours

- MUS 101 - Private Music **Credits:** 1
- MUS 105 - Voice Class I **Credits:** 1
- MUS 106 - Voice Class II **Credits:** 1
- MUS 107 - Guitar Class I **Credits:** 1
- MUS 108 - Guitar Class II **Credits:** 1
- MUS 110 - Concert Band **Credits:** 1
- MUS 111 - Symphonic Band **Credits:** 1
- MUS 113 - Big Band I **Credits:** 1
- MUS 114 - Big Band II **Credits:** 1
- MUS 115 - Instrumental Ensemble **Credits:** 1
- MUS 116 - Jazz Combo **Credits:** 1
- MUS 117 - Symphony Orchestra **Credits:** 1
- MUS 129 - Music Fundamentals **Credits:** 2
- MUS 190 - Oratorio: **Credits:** 1
- MUS 198 - Music Topics: **Credits:** 1-3

**Note:** 1 credit hour in Music Topics may be applied to Music Electives.

- MUS 203 - Piano Class III **Credits:** 1
- MUS 204 - Piano Class IV **Credits:** 1
- MUS 222 - Chamber Singers **Credits:** 1
- MUS 223 - Vocal Ensemble **Credits:** 1
- MUS 224 - Master Chorale **Credits:** 1
- MUS 225 - Community Chorale **Credits:** 1
- MUS 226 - Chamber Choir **Credits:** 1
- MUS 227 - Women's Chorale **Credits:** 1
- MUS 228 - Gospel Choir **Credits:** 1
- MUS 296 - Internship: Music **Credits:** 3

## Performing Arts Concentration

### Performing Arts Core Requirements (19 credits)

- DAN 110 - Ballet I **Credits:** 2
- THR 131 - Acting I **Credits:** 3
- THR 132 - Acting II **Credits:** 3
- THR 133 - Musical Theater I **Credits:** 3
- THR 141 - Stagecraft **Credits:** 3
- THR 220 - Principles of Dramatic Analysis **Credits:** 3  
Complete 2 of the following Production Workshop Practicums **Credits:** 2
- THR 144 - Production Workshop Practicum: Costuming and Make-up
- THR 145 - Production Workshop Practicum: Props
- THR 146 - Production Workshop Practicum: Set Building and Painting
- THR 147 - Production Workshop Practicum: Theater Production Crew

### Performing Arts Electives: Select 7 credit hours

- DAN 111 - Modern Dance **Credits:** 2
- DAN 112 - Jazz & Tap **Credits:** 2
- DAN 120 - Ballet II **Credits:** 2
- DAN 145 - Dance Choreography **Credits:** 2

- MUS 101 - Private Music **Credits:** 1 (Voice)
- MUS 103 - Piano Class I **Credits:** 1
- MUS 129 - Music Fundamentals **Credits:** 2
- MUS 134 - Singing for the Actor **Credits:** 3
- MUS 151 - Applied Music **Credits:** 2 (Voice)
- THR 134 - Musical Theater II **Credits:** 3
- THR 151 - Scene Study for Actors **Credits:** 3
- THR 218 - Directing I **Credits:** 3
- THR 231 - Acting the One-Act Play **Credits:** 3
- THR 299 - Independent Study Theater **Credits:** 1-6

## Program Outcomes

Upon successful completion of the Associate of Arts in Fine Arts Degree program, the learner will be able to:

### Art Concentration:

1. Articulate the creative process and influence of project development.
2. Use safe practices with appropriate equipment, tools and materials.
3. Exercise and exhibit quality craftsmanship.
4. Utilize, analyze and synthesize the principles and elements of design.
5. Identify historical and contemporary examples of the Fine Arts and Crafts.
6. Create a fine arts portfolio.

### Music Concentration:

1. Perform at a required level of artistry and technical proficiency on an instrument.
2. Develop and perform a required level of music analytical competence.
3. Exhibit a required level of aural recognition.
4. Explain the historical and cultural development of music throughout the ages.
5. Communicate informed personal reactions to recorded and live music.

### Performing Arts Concentration:

1. Sing, act and dance in creative performances.
2. Communicate and collaborate professionally in audition, rehearsal and production settings.
3. Build, dress, coordinate and work in music and theatrical productions.
4. Identify and integrate historical and contemporary contexts into theatrical performance.
5. Direct and receive direction on stage.

# Associate of Business $\infty$

## Credit Hours Required: 62

The Associate of Business degree requires completion of 62 credit hours. Although students often have the option of entering a career field upon completion of the Associate of Business, this degree plan is primarily designed to provide the first two years of coursework to prepare students for transfer into a related upper-division baccalaureate degree program.

**Students preparing to transfer to an upper-division baccalaureate degree program should contact an academic advisor in the major field of study at the transfer institution in addition to meeting regularly with an academic advisor at Yavapai College.**

Regular advisement is important to build an educational plan and ensure transferability of general education, elective, and major courses.

**Note:** The Arizona General Education Curriculum (AGEC-B) is embedded in the Associate of Business degree. Upon completion of all 35 credit hours (including the Special Requirements) of the AGEC with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGEC upon admission to one of the state universities in Arizona.

**Students must complete a course from each of the following AGEC Special Awareness areas:**

- Intensive Writing/Critical Inquiry (IWR)
- Ethnic/Race/Gender (ERG) Awareness
- Global/International or Historical (GIH) Awareness

**$\infty$ Note:** This program can be completed entirely online. Not all general education options or major and elective studies are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.

## AGEC-B Requirements (35 credits)

- A. Foundation Studies (9 credits)
  - 1. College Composition **Credits:** 6
  - 2. Numeracy **Credits:** 3
- B. Core Studies (3 credits)
  - 1. Historical Perspective **Credits:** 3
- C. Area Studies (20 credits)
  - 1. Physical and Biological Science **Credits:** 8
  - 2. Arts and Humanities **Credits:** 6
  - 3. Behavioral Science **Credits:** 3
  - 4. Social Science **Credits:** 3

**Note:** For Social Science choose from the approved list except ECN 235, which will be applied to Major & Elective Studies (below).

- D. Computer Systems and Applications (3 credits)
  - 1. CSA 110 - Introduction to Computer Information Systems **Credits:** 3

## Communication Requirement (3 credits)

You may select from the following courses to fulfill the requirements of the Communication component of this degree.

- COM 100 - Introduction to Human Communication **Credits:** 3
- COM 131 - Fundamentals of Speech Communication **Credits:** 3
- COM 134 - Interpersonal Communication **Credits:** 3
- COM 200 - Communication Theory **Credits:** 3
- COM 271 - Small Group Communication **Credits:** 3

## Major and Elective Studies (24 credits)

- ACC 131 - Principles of Accounting I **Credits:** 3
- ACC 132 - Principles of Accounting II **Credits:** 3
- BSA 131 - Introduction to Business **Credits:** 3

- **OR** MGT 233 - Business Communication **Credits:** 3
  - BSA 237 - Legal Environment of Business **Credits:** 3
  - ECN 232 - Business Statistical Analysis **Credits:** 3
  - ECN 235 - Principles of Economics-Macro **Credits:** 3
  - ECN 236 - Principles of Economics-Micro **Credits:** 3
- 
- ECN 234 - Quantitative Methods **Credits:** 3
  - **OR** MAT 172 - Finite Mathematics **Credits:** 3
  - **OR** MAT 230 - Calculus and Analytic Geometry II **Credits:** 5

# Associate of General Studies <sup>∞</sup>

## Credit Hours Required: 60

The Associate of General Studies degree requires the completion 60 credit hours. Students whose career, major, or transfer intent is uncertain may elect to pursue this degree. This degree allows students to uniquely design an associate's degree with more flexibility in the selection of courses. These courses may be taken from a variety of subject areas with no specific area of emphasis. **Students are encouraged to develop their degree plan in conjunction with an academic advisor.**

Students electing to transfer to one of the Arizona public universities with an AGS degree will have their coursework evaluated on a course-by-course basis by the university to which they transfer. These students may wish to also complete the Arizona General Education Curriculum (AGEC) certificate to ensure the acceptance of their general education coursework as a block transfer of general education requirements.

*∞Note: This program can be completed entirely online. Not all general education options or major and elective studies are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.*

## General Education Requirements (28 credits)

- A. Foundation Studies (9 credits)
  - 1. College Composition **Credits: 6**
  - 2. Numeracy **Credits: 3**
- B. Core Studies (6 credits)
  - 1. Historical Perspective **Credits: 3**
  - 2. Critical Thinking **Credits: 3**
- C. Area Studies (13 credits)
  - 1. Physical and Biological Science **Credits: 4**
  - 2. Arts and Humanities AND Behavioral and/or Social Science **Credits: 9**  
Select Option a or b:
    - a. Arts and Humanities **Credits: 3**  
Behavioral Science **Credits: 3**  
Social Science **Credits: 3**
    - b. Arts and Humanities **Credits: 6 and**  
Behavioral Science **Credits: 3 OR** Social Science **Credits: 3**

## Communication Requirement (3 credits)

You may select from the following courses to fulfill the requirements of the Communication component of this degree.

- COM 100 - Introduction to Human Communication **Credits: 3**
- COM 131 - Fundamentals of Speech Communication **Credits: 3**
- COM 134 - Interpersonal Communication **Credits: 3**
- COM 200 - Communication Theory **Credits: 3**
- COM 271 - Small Group Communication **Credits: 3**

## Major and Elective Studies (29 credits)

Students who are exploring options related to occupational goals should select 100- or 200-level courses related to that interest. Students who are exploring options related to transfer goals should consider completing one of the associate degrees that fulfill the Arizona General Education Curriculum requirements.

# Associate of Science

## Credit Hours Required: 60

The Associate of Science degree requires completion of a minimum of 60 credit hours. Although students often have the option of entering a career field upon completion of the Associate of Science, this degree plan is primarily designed to provide the first two years of coursework to prepare students for transfer into a related upper-division baccalaureate degree program. The Associate of Science degree is the appropriate degree plan for students who major in fields with more stringent mathematics and mathematics-based science requirements.

**Students preparing to transfer to an upper-division baccalaureate degree program should contact an academic advisor in the major field of study at the transfer institution in addition to meeting regularly with an academic advisor at Yavapai College.**

Regular advisement is important to build an educational plan and ensure transferability of general education, elective, and major courses.

**Note:** The Arizona General Education Curriculum (AGEC-S) is embedded in the Associate of Science degree. Upon completion of all 35 credit hours (including the Special Requirements) of the AGEC with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGEC upon admission to one of the state universities in Arizona.

**Students must complete a course from each of the following AGEC Special Awareness areas:**

- Intensive Writing/Critical Inquiry (**IWR**)
- Ethnic/Race/Gender (**ERG**) Awareness
- Global/International or Historical (**GIH**) Awareness

## AGEC-S Requirements (35 Credits)

- A. Foundation Studies (9 credits)
  - 1. College Composition **Credits:** 6
  - 2. Numeracy **Credits:** 3-5
- B. Area Studies (20 credits)
  - 1. Physical and Biological Science **Credits:** 8
  - 2. Arts and Humanities **Credits:** 6
  - 3. Behavioral Science **Credits:** 3
  - 4. Social Science **Credits:** 3
- C. Other Requirements (6-8 credits)

## Communication Requirement (3 credits)

You may select from the following courses to fulfill the requirements of the Communication component of this degree.

- COM 100 - Introduction to Human Communication **Credits:** 3
- COM 131 - Fundamentals of Speech Communication **Credits:** 3
- COM 134 - Interpersonal Communication **Credits:** 3
- COM 200 - Communication Theory **Credits:** 3
- COM 271 - Small Group Communication **Credits:** 3

## Major and Elective Studies (22 credits)

Select 22 transferable credits from transfer guides or intended major, including second language courses\*. Choose from the following courses when completing this requirement: AGS 103 or BIO 103, BIO 105 or ENV 105, BIO 181, BIO 182, BIO 201, BIO 202, BIO 205, CHM 151, CHM 152, CHM 235 and CHM 235L, CHM 236 and CHM 236L, ENV 110 or GLG 110, GEO 103, GEO 212, GLG 101, GLG 102, MAT 187, MAT 230, MAT 241, MAT 262, PHY 111, PHY 112, PHY 150, PHY 151, SPA 101\*, SPA 102\*, SPA 201\*, SPA 202\*.

**\*Note:** It should be determined whether a language requirement is included in a transfer degree plan before SPA courses are applied to elective credits.

Select a link below for additional information about transfer and majors. It is recommended that you meet with an Academic Advisor to assist you with choosing courses.

Major	AZTransfer**	Yavapai College Department Page
Biology	<a href="#">Biology Major Guide</a>	<a href="#">Sciences</a>
Chemistry	<a href="#">Chemistry Major Guide</a>	<a href="#">Sciences</a>
Geology	<a href="#">Geology Major Guide</a>	<a href="#">Sciences</a>
Physics, Astronomy	<a href="#">Physics, Physical Science, Astronomy Major Guide</a>	<a href="#">Sciences</a>

\*\*AZTransfer Major Guides link associate's degrees to their related bachelor's degrees for majors that are offered by two or more of Arizona's public universities.

Note: Table and Resources were added January 30, 2019. Visit the [Catalog Addendum](#) for more information.

## Transfer Resources

The following tools are provided to assist students who are planning to transfer to Arizona Universities.

- [Majors & Degrees Guide](#) - AZTransfer
  - Major guides link associate's degrees to their related bachelor's degrees for majors that are offered by two or more of Arizona's public universities.
- [Course Equivalency Guide](#) - AZTransfer
  - The Course Equivalency Guide (CEG) shows students how community college courses transfer to Arizona State University, Northern Arizona University, and University of Arizona. This guide can assist you when choosing your major and elective studies.
- ASU [Transfer Admissions Guarantee](#) (TAG)
  - The Transfer Admission Guarantee, or TAG, helps you plan and complete your Arizona community college coursework to meet the lower-division course requirements for your ASU major. When you complete the TAG, you'll be on track and prepared for success in earning your bachelor's degree.
- NAU [Jacks Path](#)
  - Jacks Path allows you see the courses you can take at Yavapai College, how your credits transfer to NAU, your progress toward completing your NAU degree, and what you'll take at NAU to earn your bachelor's degree.
- UA [Bridge](#) Program
  - The UA Bridge program is a partnership between several Arizona community colleges and the University of Arizona that provides a clear path to pursuing your UA bachelor's degree.

# Arizona General Education Curriculum (AGEC-A) $\infty$

## Credit Hours Required: 35

The Arizona General Education Curriculum (AGEC) is designed to fulfill all lower division General Education requirements at the public universities in Arizona. The AGEC-A is the appropriate curriculum for students who plan to major in fields in the Liberal Arts or programs of study other than business or science, and will transfer as a block without loss of credit to Arizona's public universities. Upon completion of all 35 credit hours of the AGEC-A with a grade of "C" or higher, the student will receive recognition of completion on their Yavapai College transcript. Arizona residents who complete an AGEC-A and who have a cumulative GPA of 2.50 or higher have assured admission upon application to one of the state universities in Arizona.

The AGEC-A also fulfills general education requirements for the Associate of Arts degrees at Yavapai College. A minimum of 15 credit hours in the AGEC-A certificate must be completed at Yavapai College.

**Note:** Courses applied to the Arizona General Education Curriculum (AGEC) may not be taken for Satisfactory/Unsatisfactory (S/U) Grading.

Students must complete a course from each of the following AGEC Special Awareness areas:

- Intensive Writing/Critical Inquiry (IWR)
- Ethnic/Race/Gender (ERG) Awareness
- Global/International or Historical (GIH) Awareness

$\infty$ **Note:** This program can be completed entirely online. Not all general education options are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.

## AGEC-A Requirements

- A. Foundation Studies (9 credits)
  1. College Composition **Credits:** 6
  2. Numeracy **Credits:** 3
- B. Core Studies (6 credits)
  1. Historical Perspective **Credits:** 3
  2. Critical Thinking **Credits:** 3
- C. Area Studies (20 credits)
  1. Physical and Biological Science **Credits:** 8
  2. Arts and Humanities **Credits:** 6
  3. Behavioral **Credits:** 3
  4. Social Science **Credits:** 3

# Arizona General Education Curriculum (AGEC-B) <sup>∞</sup>

## Credit Hours Required: 35

The Arizona General Education Curriculum (AGEC) is designed to fulfill all lower division General Education requirements at the public universities in Arizona. The AGEC-B is primarily designed for business majors. Students pursuing this plan of study should consult an academic advisor regarding general education requirements related to the major (e.g. accounting, computer information systems, management, marketing, general business).

Upon completion of all 35 credit hours of the AGEC-B with a grade of "C" or higher, the student will receive recognition of completion on their Yavapai College transcript. Arizona residents who complete an AGEC-B and who have a cumulative GPA of 2.50 or higher have assured admission upon application to one of the state universities in Arizona.

The AGEC-B also fulfills general education requirements for the Associate of Business degree at Yavapai College. A minimum of 15 credit hours in the AGEC-B certificate must be completed at Yavapai College.

**Note:** Courses applied to the Arizona General Education Curriculum (AGEC) may not be taken for Satisfactory/Unsatisfactory (S/U) Grading.

**Students must complete a course from each of the following AGEC Special Awareness areas:**

- Intensive Writing/Critical Inquiry (IWR)
- Ethnic/Race/Gender (ERG) Awareness
- Global/International or Historical (GIH) Awareness

**∞Note:** This program can be completed entirely online. Not all general education options are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.

## AGEC-B Requirements

- A. Foundation Studies (9 credits)
  1. College Composition **Credits:** 6
  2. Numeracy **Credits:** 3
- B. Core Studies (3 credits)
  1. Historical Perspective **Credits:** 3
- C. Area Studies (20 credits)
  1. Physical and Biological Science **Credits:** 8
  2. Arts and Humanities **Credits:** 6
  3. Behavioral Science **Credits:** 3
  4. Social Science **Credits:** 3
- D. Computer Systems and Applications (3 credits)
  1. CSA 110 - Introduction to Computer Information Systems **Credits:** 3

# Arizona General Education Curriculum (AGEC-S)

## **Minimum Credit Hours Required: 35**

The Arizona General Education Curriculum (AGEC) is designed to fulfill all lower division General Education requirements at the public universities in Arizona. The AGEC-S is the appropriate curriculum for students who major in fields with stringent requirements in mathematics and science.

Upon completion of all requirements of the AGEC-S with a grade of "C" or higher, the student will receive recognition of completion on their Yavapai College transcript. Arizona residents who complete an AGEC-S and who have a cumulative GPA of 2.50 or higher have assured admission upon application to one of the state universities in Arizona.

The AGEC-S also fulfills general education requirements for the Associate of Science degree at Yavapai College. A minimum of 15 credit hours in the AGEC-S certificate must be completed at Yavapai College.

**Note:** Courses applied to the Arizona General Education Curriculum (AGEC) may not be taken for Satisfactory/Unsatisfactory (S/U) Grading.

**Students must complete a course from each of the following AGEC Special Awareness areas:**

- Intensive Writing/Critical Inquiry (IWR)
- Ethnic/Race/Gender (ERG) Awareness
- Global/International or Historical (GIH) Awareness

## AGEC-S Requirements

- A. Foundation Studies (9 credits)
  1. College Composition **Credits:** 6
  2. Numeracy **Credits:** 3-5
- B. Area Studies (20 credits)
  1. Physical and Biological Science **Credits:** 8
  2. Arts and Humanities **Credits:** 6
  3. Behavioral Science **Credits:** 3
  4. Social Science **Credits:** 3
- C. Other Requirements (6-8 credits)

## Accounting - AAS <sup>∞</sup>

The Accounting degree program prepares students for employment in entry level positions in the accounting profession. Students are expected to have mastered basic English composition and math skills before beginning this program.

**Credit Hours Required:** 60

*Note: Since this degree prepares students directly for employment, students interested in a transfer program in accounting should see an academic advisor for other educational options.*

*∞Note: This program can be completed entirely online. Not all general education options or program electives are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.*

[Click for more information about this program](#)

### General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

### Program Requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 116 - Advanced Tax Planning and Preparation **Credits:** 4
- ACC 121 - Introductory Accounting **Credits:** 3
- ACC 122 - Payroll Accounting **Credits:** 3
- ACC 131 - Principles of Accounting I **Credits:** 3
- ACC 132 - Principles of Accounting II **Credits:** 3
- ACC 161 - Computer Accounting with QuickBooks **Credits:** 2
- ACC 162 - Microsoft Excel and Access in Accounting Applications **Credits:** 3
- ACC 231 - Intermediate Accounting I **Credits:** 4
- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- CSA 126 - Microsoft Office for Windows **Credits:** 3

### Program Electives

*Select 9 credit hours from the following courses:*

- ACC 296 - Internship: Accounting **Credits:** 3
- BSA 131 - Introduction to Business **Credits:** 3
- ECN 236 - Principles of Economics-Micro **Credits:** 3
- MGT 132 - Ethics in Business **Credits:** 3

### Program Outcomes

Upon successful completion of the Accounting Degree program, the learner will be able to:

1. Perform financial accounting functions using proper format and procedure based on Generally Accepted Accounting Principles (GAAP) and the International Financial and Reporting Standards (IFRS). (ACC 121, ACC 122, ACC 131, ACC 132, ACC 161, ACC 231)
2. Perform managerial accounting functions using proper format and procedure. (ACC 132)
3. Prepare, analyze, and interpret financial statements and reports for service, merchandising and manufacturing companies. (ACC 121, ACC 131, ACC 132, ACC 161, ACC 162, ACC 231)
4. Analyze and communicate the effects of tax rules on individuals, partnerships and corporations, and prepare complex tax returns for each. (ACC 115, ACC 116)
5. Utilize professional business communication skills. (ACC 296, BSA 102, CSA 126)
6. Use current technology and software applications to input, manage, and interpret financial information. (ACC 115, ACC 116, ACC 122, ACC 161, ACC 162, ACC 296, BSA 102, CSA 126)
7. Identify, research, and recommend resolution of business issues, including ethical implications of alternatives. (ACC 131, ACC 132, ACC 231, BSA 131, ECN 236, MGT 132)

# Administration of Justice - AAS <sup>∞</sup>

The Administration of Justice degree program is an interdisciplinary program of study which prepares students for a broad range of employment opportunities including law enforcement, corrections, probation/parole officer, and social services in the courts or community agencies.

In addition to preparing students for entry-level employment, this degree program is appropriate for individuals already employed in the justice field who are seeking skill upgrade and promotional opportunities, and individuals preparing to transfer to a four-year college/university with a major in Justice Studies.

Arizona State University, Arizona State University-West, Grand Canyon University, Northern Arizona University and the University of Arizona all offer baccalaureate degree programs in Justice Studies/Administration of Justice.

**Credit Hours Required:** 61

*∞Note: This program can be completed entirely online. Not all general education options or program electives are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.*

[Click for more information about this program](#)

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. AJS 123 (Critical Thinking) **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- AJS 101 - Introduction to Administration of Justice **Credits:** 3
- AJS 109 - Substantive Criminal Law **Credits:** 3
- AJS 170 - Forensic Science **Credits:** 3
- AJS 200 - Current Issues in Criminal Justice **Credits:** 3
- AJS 225 - Criminology **Credits:** 3
- AJS 230 - The Police Function **Credits:** 3
- AJS 240 - The Correction Function **Credits:** 3
- AJS 260 - Procedural Criminal Law **Credits:** 3
- AJS 270 - Community Relations **Credits:** 3
- AJS 290 - Constitutional Law: Civil Liberties and Civil Rights **Credits:** 3

## Program Electives

Select 12 credit hours from the following courses:

- AJS 103 - Public Safety Report Writing **Credits:** 3
- AJS 192 - Serial Killers and Mass Murderers **Credits:** 3
- AJS 212 - Juvenile Justice Procedures **Credits:** 3
- AJS 226 - Victimology and Crises Intervention **Credits:** 3
- AJS 250 - Introduction to Global Security and Intelligence **Credits:** 3
- AJS 252 - Homeland Security **Credits:** 3
- AJS 254 - Global Crime and Criminal Justice **Credits:** 3
- AJS 256 - Terrorism **Credits:** 3
- AJS 258 - Information Protection and Computer Security **Credits:** 3
- AJS 275 - Criminal Investigations **Credits:** 3
- AJS 278 - Neuroscience and the Law **Credits:** 3

- AJS 296 - Internship: Administration of Justice **Credits:** 3
- AJS 298 - Special Justice Topics: **Credits:** 3

## Program Outcomes

Upon successful completion of the Administration of Justice Degree program, the learner will be able to:

1. Explain the historical development of American criminal law from its English common law roots to the present. (AJS 101)
2. Analyze criminal conduct in the context of historical, social, political and legal developments. (AJS 101, AJS 109)
3. Identify the organization and jurisdiction of local state and federal law enforcement, courts and correctional systems. (AJS 101, AJS 230, AJS 240)
4. Describe the relationships between the three components of the criminal justice system. (AJS 109, AJS 230, AJS 240)
5. Summarize the philosophy of legal sanctions and corrections and the historical development of theories of punishment and rehabilitation. (AJS 109, AJS 240)
6. Analyze the intersection of law, morality and ethics in our modern society. (AJS 123)
7. Summarize the modern scientific tools used in criminal investigation. (AJS 170)
8. Analyze current issues and trends in crime rates, criminal behavior, and social trends as they impact the criminal justice process. (AJS 200)
9. Identify and analyze specific problems which relate to police-community relations and seek possible solutions. (AJS 270)
10. Identify and summarize the various theories of the causes of criminal behavior. (AJS 225)
11. Analyze the role of the US Supreme Court in defining the Constitutional protections and procedural due process safeguards in the criminal justice system. (AJS 260)
12. Describe the economic and psychological impact of crime on society. (AJS 225, AJS 240)
13. Define investigation and describe the goals of criminal investigation. (AJS 275)
14. Identify the key provisions of the Bill of Rights and the U.S. Constitution that pertain to civil liberties and civil rights, and explain various competing theories of constitutional interpretation and judicial review. (AJS 290)

# Administrative Professional - AAS <sup>∞</sup>

The Administrative Professional degree program prepares students for entry-level employment in a variety of settings. A concentration in computer skills, management/leadership, medical office, legal office, or bookkeeping may be obtained. This program is the culmination of the guided pathways established for this employment field.

**Credit Hours Required:** 60-63

**Note:** Students are expected to have mastered basic keyboarding skills before beginning this program.

**∞Note:** This program can be completed entirely online. Not all general education options or program electives are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6  
*Note: For College Composition or Applied Communication choose from the approved options except ENG 101 or MGT 233, which will be applied to Program Requirements (below).*
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- ACC 121 - Introductory Accounting **Credits:** 3
- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- BSA 130 - Business Financial Applications **Credits:** 3
- BSA 225 - Administrative Professional: Office Management **Credits:** 3
- CSA 110 - Introduction to Computer Information Systems **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- CSA 138 - Microsoft Excel **Credits:** 2
- CSA 139 - Microsoft Access **Credits:** 2
- CSA 140 - Microsoft Word **Credits:** 2
- CSA 142 - Microsoft PowerPoint **Credits:** 2
- ENG 101 - College Composition I **Credits:** 3
- MGT 233 - Business Communication **Credits:** 3

## Select one Concentration below and complete the requirements

### A. Bookkeeping Concentration - Complete all requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 122 - Payroll Accounting **Credits:** 3
- ACC 131 - Principles of Accounting I **Credits:** 3
- ACC 161 - Computer Accounting with QuickBooks **Credits:** 2
- ACC 162 - Microsoft Excel and Access in Accounting Applications **Credits:** 3

## B. Computer Skills Concentration - Complete a minimum of 11 credit hours

- CSA 124 - Creating Dynamic Forms **Credits:** 2
- CSA 133 - Microsoft Publisher **Credits:** 2
- CSA 134 - Microsoft Word Desktop Publishing **Credits:** 2
- CSA 144 - Creating Web Pages Using Dreamweaver **Credits:** 3
- CSA 172 - Microsoft Windows **Credits:** 2
- CSA 296 - Internship: Computer Systems and Applications **Credits:** 3
- MGT 111 - Leadership & Innovation **Credits:** 1
- MGT 112 - Leadership & Collaboration **Credits:** 1
- MGT 113 - Leadership & Communication **Credits:** 1

## C. Legal Office Concentration - Complete all requirements

- LAW 100 - Introduction to Paralegal Studies **Credits:** 3
- LAW 102 - Legal Computer Applications **Credits:** 3
- LAW 103 - Ethics and the Law **Credits:** 3
- LAW 107 - Law Office Management **Credits:** 3

## D. Management/Leadership Skills Concentration - Complete a minimum of 11 credit hours

- MGT 111 - Leadership & Innovation **Credits:** 1
- MGT 112 - Leadership & Collaboration **Credits:** 1
- MGT 113 - Leadership & Communication **Credits:** 1
- MGT 120 - Supervision Techniques **Credits:** 3
- MGT 140 - Organizational Behavior **Credits:** 3
- MGT 223 - Human Resource Management **Credits:** 3

## E. Medical Office Concentration - Complete all requirements

- AHS 100 - Fundamentals of Health Care **Credits:** 3
- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- HIM 110 - Introduction to Health Information Management **Credits:** 3
- HIM 173 - Legal and Ethical Aspects of Health Information Management **Credits:** 2

## Program Outcomes

Upon successful completion of the Administrative Professional Degree program, the learner will be able to:

1. Communicate orally and in writing in the context of common business practice. (AHS 100, 131, 132; BSA 225; CSA 124, 126, 133, 134, 138, 139, 140, 142, 144, 296; ENG 101, HIM 110, 173; LAW 100; MGT 111, 112, 113, 120, 140, 223)
2. Design, implement and maintain efficient procedures for accomplishing various office-related tasks. (ACC 115, 121, 122, 131, 161, 162; BSA 130, 225; CSA 110, 124, 126, 133, 134, 138, 139, 140, 142, 144, 172, 296; HIM 110, 173; LAW 103, 107; MGT 111, 112, 113, 120, 140, 223, 233)
3. Work as a member of a team in an office environment to accomplish the goals of the organization. (BSA 225; CSA 110, 296; HIM 110; LAW 102, LAW 107; MGT 111, 112, 113, 120, 140, 223, 233)
4. Use technology to organize information and complete office tasks more efficiently. (ACC 161, 162; BSA 225; CSA 110, 124, 126, 133, 134, 138, 139, 140, 142, 144, 172, 296; LAW 102, 107)

# Advanced Manufacturing Technology - AAS

The Advanced Manufacturing degree is designed to teach students marketable skills in high tech automated manufacturing processes that incorporate innovative technologies to improve production of products from design to manufacturing stages.

**Credit Hours Required:** 62 (Mining: 75)

**Note:** Freeport McMoRan, Inc. sponsors a mining program designed to prepare students for direct employment in the mining industry. There are special admission requirements for this program. Contact 928.776.2002 for details.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. BIO 105 or ENV 105 (Physical & Biological Science) **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- **OR** CSA 126 - Microsoft Office for Windows **Credits:** 3
- CNC 101 - CNC Machine Operator **Credits:** 2
- CNC 102 - CNC Machine Setup **Credits:** 2
- CNC 201 - Computer Aided Programming for CNC Machining **Credits:** 3
- EGR 180 - CAD (Computer Aided-Drawing) with SolidWorks **Credits:** 3
- ELT 101 - Basic Electricity **Credits:** 4
- ELT 165 - Programmable Logic Controllers **Credits:** 2
- ELT 272 - Motors and Motor Controls **Credits:** 3
- IPT 110 - Industrial Shop Practices **Credits:** 3
- IPT 135 - Industrial Valve and Pump Maintenance and Repair **Credits:** 3
- IPT 160 - Machinery Maintenance and Troubleshooting **Credits:** 3
- IPT 261 - Machine Shop **Credits:** 3
- MET 116 - Rigging **Credits:** 1
- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2
- WLD 112 - Basic Welding I **Credits:** 2
- **OR** WLD 113 - Basic Welding II **Credits:** 2
- WLD 250 - Welded Metal Fabrication **Credits:** 4

## Freeport McMoRan Mining Students Only

- IPT 295 - Apprenticeship: Industrial Plant **Credits:** 3
- **AND** IPT 295 - Apprenticeship: Industrial Plant **Credits:** 3
- **AND** IPT 295 - Apprenticeship: Industrial Plant **Credits:** 3
- **AND** IPT 295 - Apprenticeship: Industrial Plant **Credits:** 3
- Note:** IPT 295 must be taken four times for a total of 12 credit hours.
- MET 150 - Surface Mine Safety Training **Credits:** 1

## Program Outcomes

Upon successful completion of the Industrial Machine Mechanic Degree program, the learner will be able to:

1. Troubleshoot, replace, and repair hydraulic and pneumatic system components. (IPT 110, 160, 295, MET 160)
2. Fabricate and repair industrial machinery components. (CNC 101, 102, IPT 261, 295, MET 116, WLD 112 or 113, 250)
3. Safely utilize machine shop equipment. (AGS 101 or CSA 126, IPT 261, 295, MET 116, 150)
4. Implement and control automated manufacturing processes. (CNC 101, 102, 201, ELT 101, 165, 272, IPT 261, MET 160)
5. Repair and replace valves. (IPT 135)
6. Design components and assemblies using Solid Works and Feature CAM. (CNC 201, EGR 180)

# Aerospace Science (Airplane/Helicopter/Tech/UAS) - AAS

The Aerospace Science degree program prepares students for careers in aviation as helicopter or airplane pilots, flight service specialists, dispatchers, instructors, and unmanned aircraft operators. The degree also prepares students for the entrance exam into the FAA Air Traffic Control Academy in Oklahoma City.

**Credit Hours Required:** 60-63

**Note:** There are special admission requirements for the Aerospace Science Programs. Call 928.776.2002 for details.

**Note:** Select one or more of the four concentrations. There is an alternate Airplane Operations Concentration plan available for students who are transitioning from the Helicopter Operations Concentration. Please contact Academic Advising for more information.

**Note:** Program was revised on September 14, 2018. See Addendum for more information.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. GEO 212 (Physical & Biological Science) **Credits:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

## Concentrations - Select one or more

### Airplane Operations Concentration (43 credits)

- AVT 115 - Instrument Pilot Airplane Ground **Credits:** 4
- AVT 116 - Instrument Pilot Airplane Flight **Credits:** 4
- AVT 204 - Commercial Pilot Airplane Ground I **Credits:** 2
- AVT 205 - Commercial Pilot Airplane Ground II **Credits:** 2
- AVT 214 - Instrument Pilot Flight Simulation **Credits:** 1
- AVT 215 - Flight Instructor Airplane Ground **Credits:** 2
- AVT 216 - Flight Instructor Airplane Flight **Credits:** 4
- AVT 217 - Commercial Pilot Airplane Flight I **Credits:** 6
- AVT 218 - Commercial Pilot Airplane Flight II **Credits:** 6
- AVT 225 - Flight Instructor Instrument Airplane Ground **Credits:** 2
- AVT 226 - Flight Instructor Instrument Airplane Flight **Credits:** 2
- AVT 236 - Aircraft Preventative Maintenance **Credits:** 1
- AVT 260 - Fundamentals of Instruction **Credits:** 1

**AND Select a minimum of 6 credit hours from the following courses:**

- AVT 122 - Fundamentals of Air Traffic Control **Credits:** 3
- AVT 261 - Advanced Aviation Meteorology **Credits:** 4
- CPD 104 - Career and Personal Development **Credits:** 3
- UAS 100 - Introduction to UAS **Credits:** 3

### Helicopter Operations Concentration (43 credits)

- AVT 118 - Instrument Pilot Helicopter Simulation **Credits:** 1
- AVT 120 - Instrument Pilot Helicopter Ground **Credits:** 4

- AVT 121 - Instrument Pilot Helicopter Flight **Credits:** 4
  - AVT 122 - Fundamentals of Air Traffic Control **Credits:** 3
  - AVT 209 - Commercial Pilot Helicopter Ground I **Credits:** 2
  - AVT 210 - Commercial Pilot Helicopter Ground II **Credits:** 2
  - AVT 211A - Commercial Pilot Helicopter Flight I - R22 **Credits:** 3 **OR**
  - AVT 211B - Commercial Pilot Helicopter Flight I - R44 **Credits:** 3
  - AVT 212A - Commercial Pilot Helicopter Flight II - R22 **Credits:** 3  
**OR**
  - AVT 212B - Commercial Pilot Helicopter Flight II - R44 **Credits:** 3
- AVT 220 - Flight Instructor Helicopter Ground **Credits:** 2
- AVT 221A - Flight Instructor Helicopter Flight - R22 **Credits:** 3 **OR**
  - AVT 221B - Flight Instructor Helicopter Flight - R44 **Credits:** 3
  - AVT 230 - Flight Instructor Instrument Helicopter Ground **Credits:** 2
  - AVT 231 - Flight Instructor Instrument Helicopter Flight **Credits:** 2
  - AVT 236 - Aircraft Preventative Maintenance **Credits:** 1
  - AVT 260 - Fundamentals of Instruction **Credits:** 1
  - AVT 261 - Advanced Aviation Meteorology **Credits:** 4
  - CPD 104 - Career and Personal Development **Credits:** 3
  - UAS 100 - Introduction to UAS **Credits:** 3

## Technical Aviation Concentration (42 credits)

- AVT 104 - Private Pilot Airplane Ground I **Credits:** 2
- AVT 117 - Private Pilot Flight Simulation **Credits:** 1
- AVT 122 - Fundamentals of Air Traffic Control **Credits:** 3
- AVT 123 - Air Traffic Control Tower Procedures **Credits:** 3
- AVT 124 - Fundamentals of Air Traffic Control Radar Operation **Credits:** 3
- AVT 200 - Airport Operations and Design **Credits:** 3
- AVT 201 - Aviation Management **Credits:** 3
- AVT 247 - Flight Service Specialist **Credits:** 3
- AVT 261 - Advanced Aviation Meteorology **Credits:** 4
- CPD 104 - Career and Personal Development **Credits:** 3
- UAS 100 - Introduction to UAS **Credits:** 3
- UAS 115 - UAS Multirotor Systems **Credits:** 4
- UAS 132 - UAS Flight Operations **Credits:** 4
- UAS 215 - UAS Mapping Systems **Credits:** 3

## Unmanned Aircraft Systems Operator Concentration (41-42 credits)

- ART 139 - Fundamentals of Video Editing **Credits:** 3
- AVT 104 - Private Pilot Airplane Ground I **Credits:** 2
- AVT 117 - Private Pilot Flight Simulation **Credits:** 1
- EGR 180 - CAD (Computer Aided-Drawing) with SolidWorks **Credits:** 3 **OR**
- MET 100 - Introduction to Manufacturing Technology **Credits:** 4

- ELT 162 - Microprocessors & Microcontrollers **Credits:** 2
- ELT 183 - Digital Circuits **Credits:** 3
- UAS 100 - Introduction to UAS **Credits:** 3
- UAS 103 - UAS Simulations **Credits:** 3
- UAS 110 - UAS Fixed-Wing Systems **Credits:** 4
- UAS 115 - UAS Multirotor Systems **Credits:** 4
- UAS 120 - UAS Sensing Systems **Credits:** 3
- UAS 132 - UAS Flight Operations **Credits:** 4
- UAS 215 - UAS Mapping Systems **Credits:** 3
- UAS 250 - UAS Applications and Analytics **Credits:** 3

## Program Outcomes

Upon successful completion of the Aviation Technology (Airplane/Helicopter/Ops/UAS) Degree program, the learner will be able to:

1. Fly or operationally control an aircraft under normal conditions. (AVT 104, AVT 109, AVT 113, AVT 115, AVT 116, AVT 117, AVT 118, AVT 120, AVT 121, AVT 122, AVT 123, AVT 124, AVT 135, AVT 204, AVT 205, AVT 209, AVT 210, AVT 211, AVT 212, AVT 214, AVT 215, AVT 217, AVT 218, AVT 220, AVT 221, AVT 227, AVT 230, AVT 231, AVT 236, AVT 245, AVT 246, AVT 247, AVT 260, AVT 261, UAS 100, UAS 103, UAS 110, UAS 115, UAS 120, UAS 200, UAS 215, UAS 250)
2. Fly or operationally control an aircraft at night or under instrument meteorological conditions. (AVT 113, AVT 115, AVT 116, AVT 117, AVT 118, AVT 120, AVT 121, AVT 122, AVT 123, AVT 124, AVT 135, AVT 204, AVT 205, AVT 209, AVT 210, AVT 211, AVT 212, AVT 214, AVT 215, AVT 216, AVT 217, AVT 218, AVT 220, AVT 221, AVT 225, AVT 226, AVT 227, AVT 230, AVT 231, AVT 236, AVT 245, AVT 246, AVT 247, AVT 260, AVT 261)
3. Fly or operationally control an aircraft under emergency conditions. (AVT 104, AVT 109, AVT 113, AVT 115, AVT 117, AVT 118, AVT 120, AVT 121, AVT 122, AVT 123, AVT 124, AVT 135, AVT 205, AVT 209, AVT 210, AVT 211, AVT 212, AVT 214, AVT 215, AVT 217, AVT 218, AVT 220, AVT 221, AVT 226, AVT 227, AVT 230, AVT 231, AVT 235, AVT 236, AVT 245, AVT 246, AVT 247, AVT 260, AVT 261)
4. Meet industry requirements to enter the aviation career field flying or operationally controlling aircraft. (ART 139, AVT104, AVT 109, AVT 113, AVT 117, AVT 118, AVT 120, AVT 121, AVT 122, AVT 123, AVT 124, AVT 135, AVT 200, AVT 201, AVT 204, AVT 205, AVT 209, AVT 210, AVT 211, AVT 212, AVT 214, AVT 215, AVT 217, AVT 218, AVT 220, AVT 221, AVT 226, AVT 227, AVT 230, AVT 231, AVT 236, AVT 245, AVT 246, AVT 247, AVT 260, AVT 261, EGR 180, MET 100, UAS 100, UAS 103, UAS 110, UAS 115, UAS 120, UAS 200, UAS 215, UAS 250)
5. Make safe aeronautical decisions using scenarios and/or actual flying conditions. AVT104, AVT 109, AVT 113, AVT 115, AVT 116, AVT 117, AVT 118, AVT 120, AVT 121, AVT 122, AVT 123, AVT 124, AVT 135, AVT 204, AVT 205, AVT 209, AVT 210, AVT 211, AVT 212, AVT 214, AVT 215, AVT 217, AVT 218, AVT 220, AVT 221, AVT 225, AVT 227, AVT 230, AVT 231, AVT 236, AVT 245, AVT 246, AVT 247, AVT 260, AVT 261, UAS 100, UAS 103, UAS 110, UAS 115, UAS 120, UAS 200, UAS 215, UAS 250)

# Agriculture Technology Management - AAS

The Agriculture Technology Management program prepares students for entrepreneurship, employment, or advancement in a variety of agricultural fields including horticulture, aquaculture and fisheries, and animal care and management.

**Credit Hours Required:** 60

[Click for more information about this program](#)

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. AGS 103 (Physical & Biological Science) **Credits:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- OR CSA 126 - Microsoft Office for Windows **Credits:** 3
- AGS 102 - Agribusiness Management **Credits:** 3
- AGS 105 - Soils **Credits:** 3
- AGS 107 - Entomology **Credits:** 3
- AGS 120 - Introduction to the Animal Industry **Credits:** 4
- AGS 157 - Community Supported Agriculture **Credits:** 3
- AGS 215 - Agricultural Mechanics **Credits:** 3
- AGS 274 - Water Management **Credits:** 3

## Program Electives

Select 16 credit hours from the following courses:

- AGS 250 - Horticulture Fall Production **Credits:** 4
- AGS 252 - Horticulture Spring Production **Credits:** 4
- AGS 261 - Aquaculture Science **Credits:** 4
- AGS 264 - Aquaculture Management **Credits:** 4
- AGS 280 - Zoo and Domestic Animal Care **Credits:** 4
- AGS 282 - Zoo and Domestic Animal Behavior **Credits:** 4

## Program Outcomes

Upon successful completion of the Agriculture Technology Management Degree program, the learner will be able to:

1. Manage an extensive agriculture facility. (AGE 100, AGS 101, AGS 102, AGS 105, AGS 107, AGS 120, AGS 157, AGS 215, AGS 274, AGS 250, AGS 252, AGS 261, AGS 264, AGS 280, AGS 282)
2. Rear fish from egg to market. (AGS 261, AGS 264)
3. Develop a water delivery and quality management system. (AGS 274, AGS 261, AGS 264)
4. Propagate plants sexually and asexually. (AGS 103, AGS 250, AGS 252)
5. Develop and implement an integrated pest management system. (AGS 107, AGS 250, AGS 252)
6. Develop and implement a comprehensive management program for exotic and domestic animals. (AGS 261, AGS 264, AGS 280, AGS 282)

# Applied Pre-Engineering - AAS

The Associate of Applied Science Degree in Applied Pre-Engineering is designed to provide students with a working knowledge of engineering concepts.

**Credit Hours Required:** 62

## General Education Requirements

- A. Foundation Studies (14 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. MAT 187 (Numeracy) **Credits:** 5
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (8 credits)
  - 1. CHM 151 (Physical & Biological Science) **Credits:** 5
  - 2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- CNC 101 - CNC Machine Operator **Credits:** 2
- CNC 102 - CNC Machine Setup **Credits:** 2
- CNC 201 - Computer Aided Programming for CNC Machining **Credits:** 3
- CNC 202 - 3-D Programming and Rapid Prototyping for CNC **Credits:** 4
- EGR 102 - Introduction to Engineering **Credits:** 3
- ELT 130 - Introduction to Robotics **Credits:** 3
- ELT 183 - Digital Circuits **Credits:** 3
- MAT 220 - Calculus and Analytic Geometry I **Credits:** 5
- MAT 230 - Calculus and Analytic Geometry II **Credits:** 5
- PHY 150 - Physics for Scientists and Engineers I **Credits:** 5
- PHY 151 - Physics for Scientists and Engineers II **Credits:** 5

## Program Outcomes

Upon successful completion of the Applied Pre-Engineering Degree program, the learner will be able to:

1. Articulate basic mathematical, scientific and applicable engineering principles. (EGR 102, MAT 220, MAT 230, PHY 150, PHY 151)
2. Model and solve problems using electronics, robotics and precision manufacturing principles. (CNC 101, CNC 102, CNC 201, CNC 202, ELT 130, ELT 183)
3. Utilize modern manufacturing techniques, skills and tools necessary to design, develop, implement, and improve integrated systems that include people, materials, information, equipment and energy. (CNC 101, CNC 102, CNC 201, CNC 202, EGR 102, ELT 130, ELT 183)
4. Write effective documents that are audience specific and describe technical operations or scientific principles. (EGR 102, ENG 101, ENG 102)
5. Work effectively as members or leaders of a team to accomplish an objective. (EGR 102, ELT 130)

# Automotive Technology - AAS

The Automotive Technology degree program is designed for individuals preparing for positions utilizing a combination of automotive technology and business management skills including service managers, insurance adjusters, and small business owners. This degree program will prepare students for the National Automotive Service Excellence (ASE) certification examinations to become ASE Certified Automobile Technicians. ASE certification requires hands-on working experience as well as completion of written examinations. Two years of post high school educational training, such as that offered in this automotive degree program at Yavapai College, may be substituted for up to one year of the hands-on work experience requirement of the ASE certification.

**Credit Hours Required:** 63-64

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- AUT 100 - Automotive/Diesel Preventative Maintenance **Credits:** 2
- AUT 109 - Auto/Diesel Electrical Systems **Credits:** 4
- AUT 122 - Automatic Transmissions and Transaxles **Credits:** 4
- AUT 123 - Automotive Brakes **Credits:** 4
- AUT 124 - Auto/Diesel Manual Drive Trains **Credits:** 4
- AUT 126 - Auto/Diesel Suspension and Steering **Credits:** 4
- AUT 128 - Auto/Diesel Heating and Air Conditioning **Credits:** 4
- AUT 153 - Auto Engine Repair **Credits:** 4
- AUT 230 - Advanced Light/Medium Duty Diesel Diagnosis 1500-4500 Series **Credits:** 4
- AUT 231 - Auto Engine Diagnostics **Credits:** 5

## Program Electives

Select 2 courses from the following:

- IPT 261 - Machine Shop **Credits:** 3
- MTC 105 - Introduction to Motorcycle and UTV Technology **Credits:** 3
- MTC 215 - Motorcycle and UTV Service Procedures **Credits:** 3
- WLD 112 - Basic Welding I **OR** WLD 113 - Basic Welding II **Credits:** 2

## Program Outcomes

Upon successful completion of the Automotive Technology Degree program, the learner will be able to:

1. Identify the parts and rebuild a basic engine and a modified performance engine. (AUT 108, AUT 151)
2. Explain and diagnose electrical circuits, electrical components, and computer related problems. (AUT 100, AUT 109, AUT 252)
3. Rebuild an automatic transmission and transaxle manual transmission, and transaxle driveline and differential. (AUT 122, AUT 124)
4. Replace steering and suspension components and align a front-end. (AUT 126)
5. Diagnose and repair automotive air conditioning and heating systems. (AUT 128)
6. Tune up, adjust and diagnose an internal combustion engine system. (AUT 131)
7. Diagnose, remove, and replace an entire automotive brake system including ABS and traction control system. (AUT 123)

# Computer Networking Technology - AAS

This program is designed to provide students with the necessary skills to gain employment as an information technology professional in the field of networking technology. Emphasis is placed on managing and supporting desktop computers, servers, and network operating systems, and designing and supporting complex wired and wireless network infrastructures. Students interested in college transfer for Bachelor degrees in Information Technology or Technology Management should see an academic advisor.

**Credit Hours Required:** 67-69

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 110 - A+ Computer Technician Certification **Credits:** 4
- CNT 115 - Computer Networking Technologies II **Credits:** 4
- CNT 120 - Introduction to Windows Server **Credits:** 3
- CNT 121 - Windows Client Operating System **Credits:** 3
- CNT 122 - Windows Server I **Credits:** 4
- CNT 123 - Windows Server II **Credits:** 3
- CNT 135 - Security+: Implementing and Maintaining Network Security **Credits:** 3
- CNT 140 - Cisco Routing and Switching I **Credits:** 4
- CNT 150 - Cisco Routing and Switching II **Credits:** 3
- CNT 160 - Cisco Routing and Switching III **Credits:** 3
- CNT 170 - Cisco Routing and Switching IV **Credits:** 3
- CNT 294 - CNT Project **Credits:** 2

## Program Electives

*Select a minimum of 5 credits from the following:*

- CNT 130 - Linux+: Linux Operating System Certification **Credits:** 4
- CNT 155 - Wireless Networking Fundamentals **Credits:** 3
- CNT 180 - Web Site Implementation and Management **Credits:** 3
- CNT 185 - IT Project Management **Credits:** 2
- CNT 220 - Windows Server III **Credits:** 3
- CNT 296 - Internship: Computer Networking Technology **Credits:** 3
- CSC 105 - Introduction to Programming **Credits:** 3
- CSC 125 - Programming: C# Fundamentals **Credits:** 3
- CSC 211 - Programming: PHP and MySQL **Credits:** 3
- CSA 282 - Database Concepts **Credits:** 3

## Program Outcomes

Upon successful completion of the Computer Networking Technology Degree program, the learner will be able to:

1. Describe and configure the hardware and software used in a small- to medium- sized computer network. (CNT 100)
2. Maintain and repair personal computers. (CNT 110)
3. Discuss the methods and operation of local and wide area networks. (CNT 115)
4. Perform administrative and troubleshooting tasks on Windows server operating systems. (CNT 120)
5. Perform administrative and troubleshooting tasks on Windows client operating systems. (CNT 121)
6. Manage and maintain a Microsoft Windows Server Active Directory environment. (CNT 122)
7. Manage and support a Microsoft Windows Server network infrastructure. (CNT 123)
8. Configure and implement network security. (CNT 135)
9. Describe the function of TCP/IP and the OSI model and related devices. (CNT 140)
10. Configure Cisco routing technologies. (CNT 150)
11. Configure Cisco switching and wireless technologies. (CNT 160)
12. Configure and describe wide area network access technologies. (CNT 170)
13. Analyze, design, implement, and present a networking project. (CNT 294)

# Computer Systems and Applications - AAS

The Computer Systems and Applications degree program prepares students for employment in entry-level positions in fields that require a basic knowledge of computers and their wide-ranging use in the working world. Students interested in a transfer program in computer science or business information systems should see an academic advisor for an educational plan.

**Credit Hours Required:** 63-70

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition **Credits:** 6
  - 2. Numeracy **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- BSA 110 - Personal Finance **Credits:** 3
- BSA 130 - Business Financial Applications **Credits:** 3
- CSA 110 - Introduction to Computer Information Systems **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- CSA 225 - Administrative Professional: Office Management **Credits:** 3
- CSA 281 - Systems Analysis and Design **Credits:** 3
- CSA 282 - Database Concepts **Credits:** 3
- CSA 294 - CSA Project **Credits:** 1-6  
*Note: CSA 294 must be taken for a minimum of 2 credit hours*
- CSC 105 - Introduction to Programming **Credits:** 3
- CSC 120 - Survey of Operating Systems **Credits:** 3

Select one Concentration below and complete the requirements

### A. Programming Concentration

- CSC 113 - Programming: Python **Credits:** 3
- CSC 125 - Programming: C# Fundamentals **Credits:** 3
- CSC 205 - Programming: JavaScript, HTML & CSS **Credits:** 3
- CSC 211 - Programming: PHP and MySQL **Credits:** 3
- CSC 220 - Programming: Java **Credits:** 3

### B. Computer Networking Technician Concentration

- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 110 - A+ Computer Technician Certification **Credits:** 4
- CNT 115 - Computer Networking Technologies II **Credits:** 4
- CNT 120 - Introduction to Windows Server **Credits:** 3

## C. Computer Application Specialist Concentration

- CSA 124 - Creating Dynamic Forms **Credits:** 2
- CSA 133 - Microsoft Publisher **Credits:** 2
- **OR** CSA 134 - Microsoft Word Desktop Publishing **Credits:** 2
- CSA 138 - Microsoft Excel **Credits:** 2
- CSA 139 - Microsoft Access **Credits:** 2
- CSA 140 - Microsoft Word **Credits:** 2
- CSA 142 - Microsoft PowerPoint **Credits:** 2
- CSA 144 - Creating Web Pages Using Dreamweaver **Credits:** 3
- CSA 172 - Microsoft Windows **Credits:** 2

## D. Video Game Development Concentration

- VGD 121 - Video Game Development for Game Engines I **Credits:** 3
- VGD 122 - Video Game Development for Game Engines II **Credits:** 3
- VGD 151 - 3D Modeling and Animation I **Credits:** 3
- VGD 152 - 3D Modeling and Animation II **Credits:** 3
- VGD 171 - Video Game Development - Programming I **Credits:** 3
- VGD 172 - Video Game Development - Programming II **Credits:** 3
- VGD 180 - Game Theory and Design Principles **Credits:** 3

## Program Outcomes

Upon successful completion of the Computer Systems and Applications Degree program, the learner will be able to:

1. Define a problem with possible solutions and follow through to a possible solution. (BSA102, BSA110, BSA130, CSA/BSA 225, CNT 110, CSA 110, CSA 126, CSA/WEB 150, CSA 161 CSC 105, CSC205, CSC113, CSC220, CSC125, CSC211, CSC120, CSA 281, CSA 282, CSA 294)
2. Identify and evaluate technology needs, and apply and adapt acquired skills to address the identified needs. (CSA/BSA 225, CNT 100, CNT 110, CSC113, CSC220, CSC205, WEB150, CSC 105, CSC125, CSC211, CSC120, CSA 281, CSA 294)
3. Communicate ideas clearly and effectively. (BSA102, BSA110, CSA/BSA 225, CNT 100, CNT 110, CSA 110, CSA 126, CSC205, CSC120, CSA 281, CSA 282, CSA 294)
4. Use technology to solve problems and increase productivity. (CSA/BSA 225, CNT 100, CNT 110, CSC205, CSC113, CSC220, CSC 105, CSA 110, CSA 126, CSA124, CSA133, CSA138, CSA139, CSA140, CSA142, CSA144, CSA172 CSC125, CSC211, CSA120, CSA 281, CSA 282, CSA 294)
5. Identify ethical issues in the business environment. (BSA102, BSA110, BSA130, CSA/BSA 225, CSA 110, CSA 294)

# Diesel Technician - AAS

This program offers two options for completion:

Option A: Diesel Technician - prepares the student to enter the diesel mechanics field as an entry-level apprentice diesel technician.

Option B: Mining Diesel Technician Track - Freeport McMoRan, Inc. sponsors a mining program which is designed to prepare students for direct employment in the mining industry.

**Credit Hours Required:** 60-70

**Note:** There are special admission requirements for the mining program track. Call 928.776.2002 for details.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. BIO 105 OR ENV 105 (Physical & Biological Science) **Creditis:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- **OR** CSA 126 - Microsoft Office for Windows **Credits:** 3
- AUT 100 - Automotive/Diesel Preventative Maintenance **Credits:** 2
- AUT 108 - Diesel Engine Repair Technology **Credits:** 4
- AUT 109 - Auto/Diesel Electrical Systems **Credits:** 4
- AUT 124 - Auto/Diesel Manual Drive Trains **Credits:** 4
- AUT 128 - Auto/Diesel Heating and Air Conditioning **Credits:** 4
- AUT 135 - Diesel Braking Systems **Credits:** 4
- AUT 208 - Advanced Diesel Engine Repair **Credits:** 4
- AUT 225 - Diesel Engine Performance **Credits:** 4
- WLD 113 - Basic Welding II **Credits:** 2

Select one Option below and complete the requirements

### Option A: Diesel Technician

- AUT 126 - Auto/Diesel Suspension and Steering **Credits:** 4
- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2

### Option B: Mining Diesel Technician

- AUT 295 - Apprenticeship: Diesel **Credits:** 3
- AND AUT 295 - Apprenticeship: Diesel **Credits:** 3
- AND AUT 295 - Apprenticeship: Diesel **Credits:** 3
- AND AUT 295 - Apprenticeship: Diesel **Credits:** 3

**Note:** AUT 295 must be taken four times for a total of 12 credit hours.

- MET 116 - Rigging **Credits:** 1
- MET 150 - Surface Mine Safety Training **Credits:** 1

- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2

## Program Outcomes

Upon successful completion of the Diesel Technician Degree program, the learner will be able to:

1. Troubleshoot, repair, and replace diesel engines. (AUT 108, AUT 208, AUT 295, MET 116, MET 150, MET 160)
2. Troubleshoot, repair, and replace diesel fuel system components. (AUT 113)
3. Troubleshoot, repair, and replace diesel electrical system components. (AUT 109, AUT 225, AUT 295)
4. Perform basic service maintenance on diesel equipment. (AUT 102, AUT 108, AUT 125, AUT 208, AUT 209, AUT 225, AUT 295, WLD 113)
5. Troubleshoot, repair, and replace drivetrains. (AUT 124, AUT 295)
6. Analyze diesel computer controlled systems. (AGS 101, AUT 225)

# Early Childhood Education - AAS

The Associate of Applied Science in Early Childhood Education prepares the student to enter the early care and education profession as a highly skilled teacher of birth-preschool, serve as a paraprofessional in a public school, or to transfer to a bachelor degree program.

**Credit Hours Required:** 60

**Note:** A current Arizona fingerprint clearance card is required for students working in the Del E. Webb Family Enrichment Center. A current card in Pediatric First Aid and Safety will be required for graduation.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

**Note:** For Behavioral or Social Science choose from the approved lists except ECE 210 or ECE 234, which will be applied to Program Requirements (below).

## Program Requirements

- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- ECE 200 - Introduction to Early Childhood Education **Credits:** 3
- ECE 202 - Early Childhood Curriculum **Credits:** 3
- ECE 210 - Infant and Toddler Development **Credits:** 3
- ECE 216 - Playing to Learn **Credits:** 3
- ECE 222 - Introduction to the Exceptional Learner **Credits:** 3
- ECE 230 - Language and Literacy Experiences **Credits:** 3
- ECE 234 - Child Development **Credits:** 3
- ECE 240 - Family and Community Partnerships **Credits:** 3
- ECE 250 - Leadership and Management in Early Childhood Programs **Credits:** 3
- ECE 260 - Guidance of Young Children **Credits:** 3
- ECE 270 - Health, Safety and Nutrition **Credits:** 3
- ECE 290 - Practicum: Directed Field Experience Birth-Preschool **Credits:** 3  
*Note: Students must apply for practicum placement during the semester prior to enrolling in ECE 290 and must have completed ECE 200, ECE 202, ECE 222, ECE 230, ECE 234 and ECE 270. Evidence of completed application for fingerprint clearance and completed CPR and First Aid training will be required as part of a completed application.*
- ECE 291 - Advanced Practicum: Supervised Field Experience Birth-Preschool **Credits:** 4

## Program Outcomes

Upon successful completion of the Early Childhood Education Degree program, the learner will be able to:

1. Build strong relationships with families through understanding, respect and valuing the characteristics of both the families and their communities. (ECE 240)
2. Articulate historical perspectives, as well as current trends, in the field of Early Childhood Education. (ECE 200)
3. Apply relationship-based proactive strategies to promote pro-social development of young children, aged birth through 8 years. (ECE 260)
4. Identify strategies to plan and implement instructional practices to promote literacy in children birth-age eight. (ECE 230)
5. Use formal and informal observation techniques to document the development and learning in young children. (ECE 210, ECE 216, ECE 222, ECE 234, ECE 290, ECE 291)

6. Provide opportunities and environments that support the physical, social, emotional, cognitive, language and creative development and learning in children birth-age eight. (ECE 202, ECE 216, ECE 222, ECE 290, ECE 291)
7. Model leadership, advocacy and management skills in the field of early care and education. (ECE 250, ECE 290, ECE 291)
8. Apply ethical and professional standards that emphasize reflective practices in working with young children, parents, other professionals and self. (ECE 202, ECE 210, ECE 216, ECE 222, ECE 290, ECE 291)
9. Implement basic health, safety, and nutritional practices with young children as required by regulation. (ECE 270, ECE 290, ECE 291)

# Electrical & Instrumentation Technology - AAS

The Electrical & Instrumentation Technology degree is designed to prepare students for positions in the installation, repair and maintenance of commercial electrical and electronic equipment.

**Credit Hours Required:** 60-67

**Note:** Freeport McMoRan, Inc. and Asarco sponsor mining programs designed to prepare students for direct employment in the mining industry. There are special admission requirements for these programs. Call 928.776.2002 for details.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- OR CSA 126 - Microsoft Office for Windows **Credits:** 3
- ELT 111 - DC Electrical Systems **Credits:** 3
- ELT 112 - AC Electrical Systems **Credits:** 3
- ELT 126 - Solid State Devices **Credits:** 3
- ELT 162 - Microprocessors & Microcontrollers **Credits:** 2
- ELT 165 - Programmable Logic Controllers **Credits:** 2
- ELT 183 - Digital Circuits **Credits:** 3
- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2

Select one Concentration below and complete the requirements

### A. Electrical & Instrumentation Technology Concentration (20 credits)

- ELT 171 - Process Control Instrumentation **Credits:** 3
- ELT 221 - Communication Systems and Circuits **Credits:** 3
- ELT 258 - Electronic Troubleshooting **Credits:** 2
- ELT 272 - Motors and Motor Controls **Credits:** 3

**AND Select at least 9 credit hours from the following courses:**

- EGR 180 - CAD (Computer Aided-Drawing) with SolidWorks **Credits:** 3
- ELT 130 - Introduction to Robotics **Credits:** 3
- ELT 140 - Robot Vision **Credits:** 3
- ELT 141 - Electrical Apparatus **Credits:** 4
- ELT 296 - Internship: Electrical Technician **Credits:** 3  
**Note:** ELT 296 may be taken for a total of 6 credit hours.
- UAS 115 - UAS Multirotor Systems **Credits:** 4
- UAS 120 - UAS Sensing Systems **Credits:** 3
- WLD 113 - Basic Welding II **Credits:** 2

## B. Lineworker Concentration (26 credits)

- CPD 104 - Career and Personal Development **Credits:** 3
- ELT 141 - Electrical Apparatus **Credits:** 4
- ELT 201 - Introduction to Linework I **Credits:** 2
- ELT 202 - Field Training I (Lineworker) **Credits:** 6
- ELT 211 - Introduction to Linework II **Credits:** 2
- ELT 212 - Field Training II (Lineworker) **Credits:** 6
- PPT 120 - Energy Industry Fundamentals **Credits:** 3

## C. Mining Concentration (27 credits)

- ELT 171 - Process Control Instrumentation **Credits:** 3
- ELT 221 - Communication Systems and Circuits **Credits:** 3
- ELT 258 - Electronic Troubleshooting **Credits:** 2
- ELT 272 - Motors and Motor Controls **Credits:** 3
- ELT 295 - Apprenticeship: Electrical Instrumentation **Credits:** 3  
AND ELT 295 - Apprenticeship: Electrical Instrumentation **Credits:** 3  
AND ELT 295 - Apprenticeship: Electrical Instrumentation **Credits:** 3  
AND ELT 295 - Apprenticeship: Electrical Instrumentation **Credits:** 3  
*Note: ELT 295 must be taken four times for a total of 12 credit hours.*
- MET 116 - Rigging **Credits:** 1
- MET 150 - Surface Mine Safety Training **Credits:** 1
- WLD 113 - Basic Welding II **Credits:** 2

## Program Outcomes

Upon successful completion of the Electrical and Instrumentation Technology Degree program, the learner will be able to:

1. Troubleshoot direct and alternating current circuits. (ELT 111, ELT 112)
2. Troubleshoot digital, microprocessor and programmable controller-based circuits. (ELT 162, ELT 165, ELT 183)
3. Troubleshoot solid-state and communication circuits. (ELT 126, ELT 221)
4. Troubleshoot pneumatic and hydraulic systems. (MET 160, WLD 113)
5. Utilize Microsoft Office to create Word, Excel, Access and PowerPoint files. (AGS 101 or CSA 126)

**Option A:**

1. Troubleshoot process control instrumentation and motor control circuits. (ELT 171, ELT 272)
2. Troubleshoot pre-bugged equipment including symptom recognition, fault isolation and repair. (ELT 258)

**Option B:**

1. Demonstrate linework equipment, tools, techniques, and safety practices. (ELT 141, ELT 201, ELT 202, ELT 211, ELT 212, PPT 120)
2. Review the history, regulations, and components of the electrical industry. (ELT 201, PPT 120)
3. Develop skills, materials, and industry connections for successful application and employment. (CPD 104)

**Option C:**

1. Troubleshoot process control instrumentation and motor control circuits. (ELT 171, ELT 272)
2. Troubleshoot pre-bugged equipment including symptom recognition, fault isolation and repair. (ELT 258, ELT 295)
3. Demonstrate the use of slings, common rigging hardware and safe loading practices. (MET 116)
4. Demonstrate the U.S. Mine Safety and Health Administration requirements for new miner training. (MET 150)

# Fire Science - AAS

The Fire Science degree program is an interdisciplinary program of study which prepares students for a broad range of employment opportunities including Firefighter, Hazardous Materials Technician, Fire Marshal/Inspector, Fire Investigator, and Fire Service Supervisor/Manager.

In addition to preparing students for employment, this degree program is appropriate for individuals already employed in the Public Safety field who are seeking skill upgrade and promotional opportunities, and individuals preparing to transfer to a four-year college/university.

Students interested in a transfer program in fire science should see an academic advisor for an educational plan.

**Credit Hours Required:** 60-72

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6  
*Note: Students preparing for transfer must complete College Composition I & II.*
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- FSC 100 - Principles of Emergency Services **Credits:** 3  
*Note: Designed to prepare personnel who wish to work in non-suppression areas.*  
OR
- FSC 104 - Hazardous Materials First Responder Operations **Credits:** 3 AND
- FSC 105 - Firefighter I & II Certification Academy **Credits:** 12  
*Note: Designed to prepare personnel who wish to work in fire suppression areas. Completion of FSC 104 and FSC 105 prepares the student to sit for the Arizona Fire Fighter I & II Certification exam process.*

AND all of the following:

- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- FSC 102 - Principles of Fire and Emergency Services Safety & Survival **Credits:** 3
- FSC 135 - Fire Prevention **Credits:** 3
- FSC 137 - Fire Protection Hydraulics and Water Supply **Credits:** 3
- FSC 210 - Advanced Fire Behavior and Combustion **Credits:** 3
- FSC 225 - Legal Aspects of Emergency Services **Credits:** 4
- FSC 234 - Fire Investigation **Credits:** 3
- FSC 235 - Fire Protection Systems **Credits:** 3
- FSC 236 - Occupational Safety and Health for Emergency Services **Credits:** 3
- FSC 238 - Strategy and Tactics **Credits:** 3
- FSC 239 - Fire Department Company Officer **Credits:** 3
- FSC 240 - Principles of Fire and Emergency Service Administration **Credits:** 3
- FSC 241 - Building Construction for Fire Protection **Credits:** 3

## Program Outcomes

Upon successful completion of the Fire Science Degree program, the learner will be able to:

1. Develop conditioning strategies, lifelong fitness, nutritional guidelines, and prepare for pre-employment agility tests. (FSC102)
2. Explain issues related to fire prevention and the components and steps of inspection and enforcement. (FSC135)
3. Describe principles and characteristics of hydraulics and operate fire hydraulic pumps currently in use in the fire service. Compute nozzle pressures and characterize related hydraulics problems. (FSC137)
4. Discuss various materials and their relationship to fires as fuel. Describe characteristics of water as a fire suppression agent and identify other suppression agents and strategies. Compare methods and techniques of fire extinguishments. (FSC210)
5. Define types of laws and explain the purpose and roles of national codes and standards and the scope of the Civil Rights Act, the American Disabilities Act, Fair Labor Standards Act, and Family Medical Leave Act. Outline the organizational and legal structure and differentiate forms of discrimination in the Fire Service. (FSC225)
6. Describe fire detection systems and applications, and operate and test fire protection and detection systems. (FSC235)
7. Employ accident control, safety standards, analyze safety hazards, develop inspection safety procedures, evaluate training simulations, and prescribe safety procedures for personnel. (FSC236)
8. Direct firefighting operations to achieve maximum property conservation. (FSC238)
9. Lead functions and processes as the emergency scene commander. (FSC239)
10. Incorporate and manage cost containment, budgeting, data analysis, personnel evaluation, community planning, and departmental and public organization. (FSC240)
11. Determine factors and principles related to fire resistance, building codes and fire suppression issues. (FSC241)
12. Describe the theory of fire behavior, phases of fire, types of fires, and methods of fire control. (FSC100, FSC105)
13. Explain the role and functions of fire protection organizations within the community. (FSC100, FSC 105)
14. Identify the main elements determining fire behavior, fuels and fuel properties. (FSC234)
15. Analyze arson, conduct fire investigations, and present evidence and testimony in court. (FSC234)
16. Determine hazardous materials through the identification of placarding, labeling and shipping manifests. Respond and control flammable, reactive and toxic hazardous materials incidents and match the type of control options for each response objective; absorption, damming, diking, dilution, diversion, retention, vapor dispersion, remote valve shut-off. (FSC100, FSC104)
17. Perform standard hose rolls, carries, drags, lifts, wall breaching, narrow-space manipulation and hoisting techniques directly related to firefighter safety and self-survival. Explain the need for proper ventilation, the method and theory of fire cause determination, and the components and value of automatic sprinkler systems. (FSC100, FSC105)

# Graphic Design - AAS

The Graphic Design degree program prepares students for employment in entry-level positions in the commercial art and advertising fields. This degree program prepares students with the design principles and desktop publishing skills required for employment in today's job market.

**Credit Hours Required:** 60

**Note:** Students interested in a transfer program should see an academic advisor for an educational plan, since this degree is primarily designed to prepare students directly for employment.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition **Credits:** 3
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- ART 110 - Drawing I **Credits:** 3
- ART 112 - Two-Dimensional Design **Credits:** 3
- ART 114 - Color **Credits:** 3
- ART 130 - Web Site Design I **Credits:** 3
- ART 131 - Graphic Design I **Credits:** 4
- ART 132 - Graphic Design II **Credits:** 4
- ART 137 - Adobe Photoshop I **Credits:** 3
- ART 154 - Digital Photography I **Credits:** 3
- ART 200 - Art History I **Credits:** 3
- OR ART 201 - Art History II **Credits:** 3
- ART 231 - Graphic Design Illustration **Credits:** 4
- ART 232 - Portfolio Development **Credits:** 2
- ART 236 - Digital Pre-Press **Credits:** 2
- MGT 232 - Internet & Social Media Marketing **Credits:** 1

## Program Electives

Select 3 credit hours from the following courses:

- ART 113 - Three-Dimensional Design **Credits:** 3
- ART 160 - Printmaking I **Credits:** 3
- ART 230 - Digital Printing Technology and Applications **Credits:** 3
- ART 237 - Adobe Photoshop II **Credits:** 3
- ART 296 - Internship: Art **Credits:** 3

## Program Outcomes

Upon successful completion of the Graphic Design Degree program, the learner will be able to:

1. Work independently or as part of a team to successfully complete graphic design projects. (ART 130, ART 131, ART 132, ART 137, ART 154, ART 231, ART 236, ART 237)

2. Develop creative solutions to visual problems. (ART 110, ART 112, ART 113, ART 114, ART 130, ART 131, ART 132, ART 137, ART 154, ART 160, ART 231, ART 236, ART 237, ART 296)
3. Utilize typography in design solutions. (ART 130, ART 131, ART 231)
4. Employ industry standard software. (ART 130, ART 132, ART 231, ART 236, ART 237, ART 296)
5. Identify, analyze, synthesize and communicate design principles. (ART 110, ART 112, ART 113, ART 114, ART 130, ART 132, ART 160, ART 200 or 201, ART 231, ART 237)
6. Produce and maintain a professional portfolio. (ART 232, MGT 232)
7. Articulate traditional and nontraditional art examples and how those examples affect popular visual literacy. (ART 110, ART 112, ART 113, ART 114, ART 130, ART 131, ART 132, ART 137, ART 160, ART 200 or 201, ART 231, ART 237)

# Gunsmithing - AAS

- **Credit Hours Required:** 67

The Gunsmithing degree program prepares students for employment in entry-level positions in firearm and metal industries.

**Note:** Since there is a special admission process for this program, prospective students should contact the Advising Center or visit our website at [www.gunsmithing.org](http://www.gunsmithing.org) for detailed information.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- GST 100 - Apprentice Gunsmithing **Credits:** 10
- GST 150 - Journeyman Gunsmithing **Credits:** 10
- GST 200 - Professional Gunsmithing **Credits:** 10
- GST 250 - Master Gunsmithing **Credits:** 10

## Program Electives

Select one course from the following each semester for a total minimum of 8 credits:

- GST 191 - Basic Engraving **Credits:** 3
- GST 192 - Advanced Engraving **Credits:** 3
- GST 195 - Gunsmithing Practicum **Credits:** 2  
**Note:** 4 credit hours in Gunsmithing Practicum may be applied to Gunsmithing Electives.
- GST 291 - Professional Firearms Engraving **Credits:** 3
- GST 295 - Advanced Gunsmithing Practicum **Credits:** 2  
**Note:** 4 credit hours in Advanced Gunsmithing Practicum may be applied to Gunsmithing Electives.
- CNC 101 - CNC Machine Operator **Credits:** 2
- CNC 102 - CNC Machine Setup **Credits:** 2
- WLD 113 - Basic Welding II **Credits:** 2

## Program Outcomes

Upon successful completion of the Gunsmithing Degree program, the learner will be able to:

1. Safely operate hand and machine tools common to the gunsmithing trade.
2. Use measuring tools such as micrometers, indicators, verniers and various gauges.
3. Use a computer to develop ballistic data and to document research assignments.
4. Completely disassemble firearms for metal refinishing and reassembly.
5. Identify different rifle operating systems.
6. Identify different shotgun operating systems including maintenance, repair and customization.
7. Lay out, duplicate, inlet, fit, glass bed, install accessories, apply finish, and checker the Classic American rifle stock.
8. Perform computer assisted drafting operations on a personal computer.
9. Identify, repair and extensively modify pistols and revolvers.
10. Install rifle barrels using proven methods to enhance accuracy.
11. Plan, set-up, make, and install specialty accessories frequently encountered in the firearms industry.
12. Communicate professionally with customers and vendors.
13. Develop a business plan, complete with demographics, suitable for a small business loan application.
14. Develop marketing tools such as brochures and ads.
15. Develop an accurate price list for performing technical services.

# Health Information Technology - AAS

The Associate of Applied Science degree in Health Information Technology will prepare the student to work in traditional and non-traditional leadership and supporting roles in health care settings in Health Information Management (HIM). Those settings include acute care, alternative care settings, government, correctional facilities, education, billing, insurance, software sales and vendor services.

**Credit Hours Required:** 69

**Note:** Admission to HIM 290 - Practicum: Health Information Management Professional Practice Experience is by application and is dependent on the following: completion of all degree coursework and practicum application; proof of CPR for Healthcare Providers; immunizations; TB skin test; fingerprint clearance card; background check; urine drug screen; and any other specific requirements of the clinical site.

[Click for more information about this program](#)

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. BIO 156 or BIO 181 (Physical & Biological Science) **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- AHS 140 - Pharmacology for Allied Health **Credits:** 2
- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4
- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- HIM 110 - Introduction to Health Information Management **Credits:** 3
- HIM 141 - Healthcare Delivery Systems **Credits:** 3
- HIM 155 - Health Information Management Computer Systems **Credits:** 2
- HIM 173 - Legal and Ethical Aspects of Health Information Management **Credits:** 2
- HIM 176 - CPT Coding **Credits:** 3
- HIM 200 - Principles of Healthcare Leadership **Credits:** 2
- HIM 210 - Healthcare Statistics and Research **Credits:** 2
- HIM 220 - Health Information Management in Alternative Healthcare Settings **Credits:** 2
- HIM 240 - Disease Process **Credits:** 4
- HIM 242 - Healthcare Reimbursement Methodology **Credits:** 3
- HIM 280 - ICD-10-CM/PCS Medical Coding **Credits:** 4
- HIM 290 - Practicum: Health Information Management Professional Practice Experience **Credits:** 3

## Program Outcomes

Upon successful completion of the Health Information Technology Degree program, the learner will be able to:

1. Adhere to legal, institutional and professional regulations to collect and maintain complete and accurate data; ensure accurate healthcare billing; comply with reimbursement and reporting requirements; select, sequence, index and assign codes; resolve discrepancies between coded data and supporting documentation; apply external standards, regulations, and initiatives. Domain I.A.1, I.A.4, I.B.3, I.D.4, III.A.1. (All courses within the program)

2. Apply general principles of ethical standards and practice in decision making within the health information management department. Domain II.B.5. (HIM110, HIM155, HIM173, HIM176, HIM200, HIM210, HIM220, HIM242, HIM280, HIM290, CSA126)
3. Abstract, analyze, and maintain data for indices, data bases, and registries; compute and interpret healthcare and vital statistics; qualitatively analyze and evaluate health care data; facilitate quality management and performance improvement programs and health information research projects. Domain II.A.1, DII.A.2. (HIM110, HIM141, HIM155, HIM176, HIM210, HIM220, HIM242, HIM280, HIM290, CSA126)
4. Apply institutional policies and procedures to the use of technology to facilitate the collection, storage, tracking, release, analysis, and reporting of information. Domain IV.A.1. (HIM110, HIM141, HIM155, HIM176, HIM242, HIM280, HIM290)
5. Apply knowledge of database architecture and design to meet departmental and organizational needs. Domain IV.B.1. (HIM155, HIM290, CSA126)
6. Maintain electronic archival and retrieval systems; monitor access logs and systems; design and generate reports to facilitate information retrieval. Domain IV.D.1-4. (HIM155, HIM173, HIM210, HIM290, CSA126)
7. Ensure data integrity and validity by using appropriate software and/or hardware; apply departmental and organization data and information system confidentiality and security policies to protect electronic health information. Domain IV.D.1-3. (HIM155, HIM173, HIM176, HIM210, HIM280, HIM290, CSA126)
8. Participate in the planning, design, selection, implementation, integration, testing, evaluation, and support for organization-wide health information systems. Domain IV.A.5. (HIM110, HIM141, HIM200, HIM290)
9. Apply human resource management and team leadership skills to effectively supervise and lead others and to maintain the integrity/viability of financial and physical resources. Domain V.A and V.B. (HIM110, HIM200, HIM173, HIM290)
10. List the indications for use, dosage forms, usual dosage, side effects, interactions with other drugs, storage requirements, generic and trade names and mechanism of action for commonly used medications. (HIM140, HIM290, AHS140, BIO201, BIO202)
11. For all major body systems, describe common diseases and conditions, methods of diagnosis, short and long term effects of disease processes, treatment and therapy and restoration strategies. (HIM140, HIM290, AHS140, BIO201, BIO202).
12. Use combining forms, suffixes, and prefixes to build medical terms. (HIM140, HIM176, HIM280, HIM290, AHS130, BIO201, BIO202)
13. Describe the strategies involved in decision making during a job search. (BSA102)

# Management - AAS $\infty$

The Associate of Applied Science (AAS) degree in Management provides management training to prepare students to apply competencies needed for successful performance in management occupations. The program is designed for students seeking to update or develop essential management skills for the workplace. This degree prepares students for employment directly into the workforce as managers, assistant managers, supervisors, team leaders and other related positions. Embedded in this degree is the Management Certificate program.

**Credit Hours Required:** 60

**Note:** Since this degree is primarily designed for direct employment, students interested in a transfer program in a business field should see an academic advisor for an educational plan.

**$\infty$ Note:** This program can be completed entirely online. Not all general education options or program electives are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.

## General Education Requirements

### A. Foundation Studies (12 credits)

1. College Composition or Applied Communication **Credits:** 6

**Note:** For College Composition or Applied Communication choose from the approved options except MGT 233, which will be applied to Program Requirements (below).

2. Numeracy (Quantitative Literacy) **Credits:** 3
3. Critical Thinking **Credits:** 3

### B. Area Studies (7 credits)

1. Physical and Biological Science **Credits:** 4
2. Behavioral Science or Social Science **Credits:** 3

## Program Requirements

- MGT 111 - Leadership & Innovation **Credits:** 1
- MGT 120 - Supervision Techniques **Credits:** 3
- MGT 132 - Ethics in Business **Credits:** 3
- MGT 140 - Organizational Behavior **Credits:** 3
- MGT 220 - Principles of Management **Credits:** 3
- MGT 223 - Human Resource Management **Credits:** 3
- MGT 229 - Strategic Management **Credits:** 3
- MGT 230 - Principles of Marketing **Credits:** 3
- MGT 233 - Business Communication **Credits:** 3

## Program Electives

Select 16 credit hours from the following courses:

- ACC 121 - Introductory Accounting **Credits:** 3
- OR BSA 130 - Business Financial Applications **Credits:** 3
- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- BSA 131 - Introduction to Business **Credits:** 3
- BSA 221 - Entrepreneurship **Credits:** 3
- BSA 237 - Legal Environment of Business **Credits:** 3
- BSA 296 - Internship: Business Administration **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- ECN 236 - Principles of Economics-Micro **Credits:** 3
- MGT 112 - Leadership & Collaboration **Credits:** 1
- MGT 113 - Leadership & Communication **Credits:** 1
- MGT 231 - Social Media Marketing **Credits:** 3

- MGT 232 - Internet & Social Media Marketing **Credits: 1**

## Program Outcomes

Upon successful completion of the Management Degree program, the learner will be able to:

1. Analyze and synthesize information through critical thinking. (ACC121, BSA130, BSA131, BSA237, CSA126, ECN236, MGT120, MGT229, MGT231, MGT 232)
2. Apply written, oral and interpersonal skills in business settings. (BSA102, MGT113, MGT229, MGT233)
3. Use the management principles of planning, organizing, leading and controlling to solve common management issues. (MGT111, MGT112, MGT113, MGT120, MGT132, MGT140, MGT220, MGT223, MGT229, MGT230, MGT233)
4. Identify ethical issues and apply the values of professional responsibility. (BSA221, BSA237, BSA296, MGT132)

# Medical Assistant - AAS

The Medical Assistant AAS degree will prepare individuals for entry-level positions requiring the cognitive, psychomotor, and affective skills necessary for performing general administrative (front office) and clinical (back office) skills in ambulatory healthcare settings including physician's offices, clinics, and urgent care centers.

**Credit Hours Required:** 60

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6  
*Note: For College Composition or Applied Communication choose from the approved options except COM 134, which will be applied to Program Requirements (below).*
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. BIO 181 or BIO 156 (Physical & Biological Science) **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- AHS 100 - Fundamentals of Health Care **Credits:** 3
- AHS 105 - Phlebotomy **Credits:** 2
- AHS 120 - Foundations of Medical Assisting I **Credits:** 3
- AHS 121 - Foundations of Medical Assisting II **Credits:** 4
- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- AHS 140 - Pharmacology for Allied Health **Credits:** 2
- AHS 295 - AHS Practicum: Medical Assistant **Credits:** 3
- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4
- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- COM 134 - Interpersonal Communication **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- HIM 173 - Legal and Ethical Aspects of Health Information Management **Credits:** 2
- HIM 240 - Disease Process **Credits:** 4

## Program Outcomes

Upon successful completion of the Medical Assistant Degree program, the learner will be able to:

1. Manage medical records upholding security and privacy standards as outlined in HIPAA regulations. (AHS 100, AHS 105, AHS 120, AHS121, AHS 295, HIM173)
2. Use computer programs commonly found in health care settings. (AHS105, AHS120, AHS121, AHS 295, CSA 126)
3. Assist the health care provider in delivering care to clients with multiple health care needs. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 130, AHS 140, AHS 295, BIO 201, 202, HIM 240)
4. Document how diversity and culture affect delivery of health care. (AHS 100, AHS105, AHS 120, AHS121, AHS 295)
5. Obtain specimens for diagnostic evaluation and testing. (AHS 105, AHS 121, AHS 295)
6. Describe the structural organization of the body. (AHS100, AHS105, AHS 121, BIO 201, BIO202, HIM 240)
7. Calculate medication dosages. (AHS 121, AHS 295, MAT 100 or above)
8. List the indications for use, dosage forms, usual dosage, side effects, interactions with other drugs, storage requirements, generic and trade names and mechanism of action for commonly used medications. (AHS 121, AHS 140, AHS 295)
9. For all major body systems, describe common diseases and conditions, methods of diagnosis, short and long term effects of disease processes, treatment and therapy and restoration strategies. (AHS121, AHS105, AHS 130, AHS 295, HIM 240)

10. Distinguish if it is appropriate to release patient records in accordance with policies and procedure for access and disclosure of personal health information. (AHS100, AHS105, AHS120, AHS121, AHS 295, HIM 173)
11. Use effective communication skills with health care professionals and patients. (AHS100, AHS105, AHS120, AHS121, AHS295)

## Nursing - AAS

# Application for Admission to the Nursing Program

Special application is required for admission to the nursing program. A Nursing Applicant Information Guide, available from the Advising Center and online at the Nursing website, describes program prerequisites and application process. Refer to the Nursing website: [www.yc.edu/nursing](http://www.yc.edu/nursing) for application deadlines.

## Advanced Placement

Returning nursing students, graduates of state-approved practical nursing programs and students transferring from state-approved nursing programs may apply for advanced placement. The application procedure is described in the advanced placement Nursing Applicant Information Guide.

## Transfer Students

Students transferring from other regionally accredited institutions will have their completed general education coursework evaluated on an individual basis.

## Health Declaration

It is essential that nursing students be able to perform a number of physical activities in the clinical portion of the program. At minimum, students will be required to lift clients, stand for several hours at a time and perform bending activities. The clinical nursing experience also places students under considerable mental and emotional stress as they undertake responsibilities and duties impacting clients' lives. Students must be able to demonstrate rational and appropriate behavior under stressful conditions. Individuals should give careful consideration to the mental and physical demands of the program prior to making application. The technical standards for the program are identified in the Nursing Applicant Information Guide.

## Graduation Requirement

All required courses for the A.A.S. in Nursing degree must be completed with a grade of "C" or better. The Associate Degree Nursing program is designed to prepare qualified students for beginning employment as staff nurses giving direct care to clients. The program is fully accredited by the Arizona State Board of Nursing and the Accreditation Commission for Education in Nursing (ACEN). Upon successful completion of the program, students will be awarded the Associate of Applied Science in Nursing degree and be eligible to make application to the National Council Licensure Examination for Registered Nurses (NCLEX-RN).

## Licensure

Graduation from the Yavapai College Associate Degree Nursing program is not the sole criteria for obtaining a license to practice nursing in Arizona. Licensing requirements are the exclusive responsibility of the Arizona State Board of Nursing (Nurse Practice Act and Rules of the State Board of Nursing), and students must satisfy those requirements independently of their satisfaction of any requirements for graduation from the college.

**See Nursing Applicant Information Guide for additional information.**

# Transfer

Students intending to transfer courses toward a baccalaureate degree in nursing should consult the catalog of the school to which they plan to transfer. Materials are available in the Advising Center and through the Department of Nursing to assist students in selecting courses equivalent to those required in baccalaureate nursing programs in Arizona. Generally 64 credits from community colleges are transferable to Arizona public universities; specific articulation information is available through the Arizona Course Applicability System (CAS) website: [www.aztransfer.com](http://www.aztransfer.com)

**Credit Hours Required:** 73

**Note:** Prerequisite - AHS 114 Nursing Assistant OR CNA licensure within the past 2 years.

[Click for more information about this program](#)

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition **Credits:** 6
  - 2. Numeracy **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. BIO 181 or BIO 156 (Physical & Biological Science) **Creditis:** 4
  - 2. PSY 245 (Behavioral or Social Science) **Credits:** 3

## Program Requirements

- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4
- BIO 205 - Microbiology **Credits:** 4
- NSG 131 - Foundations in Nursing I **Credits:** 8
- NSG 132 - Concepts in Nursing II **Credits:** 9
- NSG 210 - Pharmacology and Nursing Practice **Credits:** 3
- NSG 231 - Concepts in Nursing III **Credits:** 7
- NSG 232 - Concepts in Nursing IV **Credits:** 5
- NSG 233 - Perinatal and Women's Health Nursing **Credits:** 2
- NSG 234 - Psychiatric/Mental Health Nursing **Credits:** 3
- NSG 235 - Nursing Management and Leadership **Credits:** 2
- NTR 135 - Human Nutrition **Credits:** 3

## Pre-Entry Requirements (Must complete prior to applying to the Nursing Program)

- AHS 114 - Nursing Assistant **Credits:** 5
- BIO 181 - General Biology I **Credits:** 4
- OR BIO 156 - Human Biology for Allied Health **Credits:** 4
- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- ENG 101 - College Composition I **Credits:** 3
- MAT 142 - College Mathematics **Credits:** 3  
*Note: MAT 142 or higher level math course.*
- Critical Thinking **Credits:** 3

## Program Outcomes

Upon successful completion of the Nursing Degree program, the learner will be able to:

1. Clinical Competence: Synthesize knowledge and skills to independently provide nursing care for groups of clients with multiple health care needs and problems.
2. Critical Thinking: Synthesize knowledge and skills to formulate and implement decisions related to complex nursing practice situations.
3. Caring: Synthesize knowledge and skills, awareness of need, and uses of empathy to protect, enhance and preserve human dignity.
4. Diversity/Culture: Apply concepts of diversity/culture in the provision of nursing care to individuals, families or groups.
5. Communication: Incorporate evaluation and modification of communications skills in nursing practice.
6. Learning/Teaching: Use the nursing process to meet the learning needs of individuals, families and peers.
7. Accountability: Examine ethical and political issues within the healthcare system. Take responsibility and accountability for personal actions.
8. Management/Leadership: Collaborate with other personnel within the organizational structure to manage client care through supervision, delegation and coordination.

# Paralegal Studies - AAS <sup>∞</sup>

The Paralegal Studies program is designed to prepare students for positions as paralegals in the legal and business fields. Individuals who are already employed in the legal field and seeking advancement opportunities may also select this program of study. Paralegals work under the supervision of an attorney and their work includes preparing legal documents, researching and compiling information, and communicating with clients. Excellent written and oral communication skills, as well as computer literacy skills, are important to the paralegal.

**Credit Hours Required:** 61

*Note: This degree is primarily designed to prepare students for direct employment. Students who are preparing to transfer to a baccalaureate degree-granting institution for an advanced degree in paralegal studies should contact an academic advisor for assistance in establishing an educational plan.*

*∞Note: This program can be completed entirely online. Not all general education options or program electives are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.*

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- CSA 126 - Microsoft Office for Windows **Credits:** 3
- LAW 100 - Introduction to Paralegal Studies **Credits:** 3
- LAW 102 - Legal Computer Applications **Credits:** 3
- LAW 103 - Ethics and the Law **Credits:** 3
- LAW 205 - Contracts **Credits:** 3
- LAW 217 - Legal Research & Writing I **Credits:** 3
- LAW 218 - Legal Research and Writing II **Credits:** 3
- LAW 220 - Civil Tort Litigation I **Credits:** 3
- LAW 221 - Civil Tort Litigation II **Credits:** 3

## Program Electives

*Select 15 credit hours from the following courses:*

- AJS 109 - Substantive Criminal Law **Credits:** 3
- AJS 260 - Procedural Criminal Law **Credits:** 3
- AJS 278 - Neuroscience and the Law **Credits:** 3
- AJS 290 - Constitutional Law: Civil Liberties and Civil Rights **Credits:** 3
- LAW 104 - Wills, Trusts and Probate **Credits:** 3
- LAW 107 - Law Office Management **Credits:** 3
- LAW 202 - Real Estate Law **Credits:** 3
- LAW 203 - Family Law **Credits:** 3
- LAW 204 - Business Organizations **Credits:** 3
- LAW 296 - Internship: Paralegal Studies **Credits:** 3
- LAW 298 - Special Legal Topics **Credits:** 3

## Program Outcomes

Upon successful completion of the Paralegal Studies Degree program, the learner will be able to:

1. Interview witnesses and interact with clients, conduct investigative work, manage cases, conduct legal research, draft legal pleadings, prepare legal documents and apply legal procedures in areas of real estate, corporate law, probate, mediation, litigation, family law, administrative law, bankruptcy law and criminal law. (LAW100, LAW205, LAW217, LAW218, LAW220, LAW221)
2. Apply written, oral and interpersonal skills in the legal and business settings. (LAW100, LAW217, LAW218, LAW220, LAW221)
3. Identify and evaluate technology needs and apply and adapt required skills to the rapidly changing legal and business community. (LAW102, LAW215)
4. Proficiently use word processing software and identify and adapt to different types of computer applications. (LAW102)
5. Identify ethical issues and apply the values of professional responsibility. (LAW100, LAW103)

# Paramedicine - AAS

The Associate of Applied Science in Paramedicine prepares students to work as paramedics in emergency care, stabilization and immobilization of victims.

**Credit Hours Required:** 62

**Note:** There are special admission requirements for the Paramedicine Program. Call 928.717.7910 for details.

[Click for more information about this program](#)

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- EMS 261 - Paramedicine I **Credits:** 14
- EMS 262 - Paramedicine II **Credits:** 4
- EMS 263 - Paramedicine III and Clinical Practicum **Credits:** 16
- EMS 264 - Paramedicine IV and Field Practicum **Credits:** 9

## Program Outcomes

Upon successful completion of the Paramedicine Degree program, the learner will be able to:

- 1. Explain the human anatomy and function of the cells in systemic organs. (EMS 261)
- 2. Identify the roles, responsibilities, medical, legal and ethical issues that impact decisions within an EMS system. (EMS 261)
- 3. Perform patient assessments, analyzing medical history, physical exam and/or mechanisms of injury to formulate a patient treatment plan. (EMS 261, EMS 262, EMS 263, EMS 264)
- 4. Describe standards and guidelines that help ensure safe and effective ground and air medical care and transport for all types of incidents. (EMS 261)
- 5. Perform all aspects of patient care procedures including communication documentation, administration of medications and readiness of equipment and personnel. (EMS 261, EMS 262, EMS 263, EMS 264)

# Radiologic Technology - AAS

The Associate of Applied Science in Radiologic Technology prepares students for entry level positions as radiographers. The program is designed in accordance with the Radiography Curriculum established by the American Society of Radiologic Technologists and consists of classroom and laboratory instruction integrated with hands-on experience in a clinical setting.

**Credit Hours Required: 78**

**Note:** There are special admission requirements for the Radiologic Technology Program. Call 928.776.2333 for details.

## General Education Requirements

1. Foundation Studies (12 credits)
  1. College Composition or Applied Communication **Credits: 6**
  2. Numeracy **Credits: 3**
  3. PHI 204 (Critical Thinking) **Credits: 3**
2. Area Studies (7 credits)
  1. BIO 201 (Physical and Biological Science) **Credits: 4**
  2. PSY 245 (Behavioral Science or Social Science) **Credits: 3**

## Program Requirements

- AHS 130 - Medical Terminology for Patient Care Staff **Credits: 3**
- BIO 202 - Human Anatomy and Physiology II **Credits: 4**
- RAD 100 - Foundations of Radiologic Science **Credits: 2**
- RAD 110 - Radiographic Positioning and Image Analysis I **Credits: 4**
- RAD 120 - Radiographic Technique I **Credits: 3**
- RAD 135 - Radiation Physics and Equipment **Credits: 3**
- RAD 140 - Radiographic Positioning and Image Analysis II **Credits: 4**
- RAD 150 - Radiographic Technique II **Credits: 3**
- RAD 160 - Radiology Clinical Education I **Credits: 3**
- RAD 170 - Radiology Patient Care **Credits: 2**
- RAD 180 - Radiology Clinical Education II **Credits: 3**
- RAD 200 - Radiology Clinical Education III **Credits: 7**
- RAD 220 - Radiobiology and Radiation Protection **Credits: 3**
- RAD 230 - Radiology Pharmacology **Credits: 1**
- RAD 240 - Radiology Clinical Education IV **Credits: 3**
- RAD 250 - Radiographic Pathology **Credits: 2**
- RAD 260 - Advanced Imaging Systems **Credits: 3**
- RAD 270 - Radiology Registry Review **Credits: 3**
- RAD 280 - Radiology Clinical Education V **Credits: 3**

## Pre-Entry Requirements (Must complete prior to applying to the Radiologic Technology Program)

- AHS 130 - Medical Terminology for Patient Care Staff **Credits: 3**
- BIO 156 - Human Biology for Allied Health **Credits: 4**
- OR BIO 181 - General Biology I **Credits: 4**
- BIO 201 - Human Anatomy and Physiology I **Credits: 4**
- BIO 202 - Human Anatomy and Physiology II **Credits: 4**
- ENG 101 - College Composition I **Credits: 3**
- ENG 102 - College Composition II **Credits: 3**
- MAT 152 - College Algebra **Credits: 3**

*Note: MAT 152 or higher level math course.*

## Program Outcomes

Upon successful completion of the Radiologic Technology Degree program, the learner will be able to:

**Goal: Graduate students who possess the clinical competency of an entry level radiologic technologist.**

1. Position patients for radiographic examinations. (RAD110, 140, 270)
2. apply principles of radiation protection for the patient, self, and others. (RAD 100, 220, 160, 180, 200, 240, 280)
3. Identify and perform basic patient care skills and techniques. (RAD170, 230)

**Goal: Graduate students who communicate effectively.**

4. Practice effective written communication skills. (RAD100, 150, 220, 260)
5. Employ effective oral communication skills. (RAD160, 180, 200, 240, 280)
6. Use appropriate interpersonal skills and communication in the clinical setting. (RAD160, 180, 200, 240, 280)

**Goal: Support students in the development, application, and integration of critical thinking and problem solving in the practice of radiography.**

7. Evaluate medical imaging procedures independently and recommend technical modifications to ensure diagnostic quality. (RAD160, 180, 200, 240, 280)
8. Determine exposure factors to achieve optimum radiographic procedures consistent with minimizing dose to patients. (RAD120, 135, 150)
9. Describe radiographic appearances and risks associated with specific forms of pathology. (RAD250)

**Goal: Graduate students committed to professional growth.**

10. Practice ethical and professional behaviors in the clinical setting. (RAD160, 180, 200, 240, 280)
11. Summarize professional obligations as a radiographer. (RAD100, 270)

# Social and Human Services - AAS

The Associate of Applied Science in Social and Human Services is a terminal degree designed to prepare students to work in entry-level positions in health and social service agencies.

**Credit Hours Required:** 60-63

**Note:** Students planning to pursue a Bachelor's Degree should follow an appropriate Associate of Arts pathway and see an Academic Advisor.

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. PSY 101 (Behavioral or Social Science) **Credits:** 3

## Program Requirements

- PSY 175 - Counseling Skills **Credits:** 3
- PSY 220 - Social Service Case Management **Credits:** 3
- PSY 241 - Substance Abuse **Credits:** 3
- PSY 262 - Crisis and Trauma Intervention **Credits:** 3
- PSY 275 - Group Skills and Processes **Credits:** 3
- PSY 296 - Internship: Psychology **Credits:** 3
- OR GRN 295 - Practicum in Gerontology **Credits:** 2
- SOC 220 - Introduction to Social Work **Credits:** 3
- SOC 250 - Social Problems **Credits:** 3

## Program Electives

Select a minimum of 18 credit hours from the following courses:

- ANT 102 - Introduction to Cultural Anthropology **Credits:** 3
- ECE 200 - Introduction to Early Childhood Education **Credits:** 3
- GRN 100 - Introduction to Social Gerontology **Credits:** 3
- GRN 101 - Psychology of Aging **Credits:** 3
- GRN 102 - Health and Aging **Credits:** 3
- GRN 294 - Practices in Gerontology **Credits:** 3
- PSY 222 - Fundamentals of Professional and Life Coaching **Credits:** 4
- PSY 223 - Advanced Coaching Perspectives and Techniques **Credits:** 4
- PSY 234 - Child Development **Credits:** 3
- PSY 240 - Personality Development **Credits:** 3
- PSY 245 - Human Growth and Development **Credits:** 3
- PSY 266 - Abnormal Psychology **Credits:** 3
- PSY 277 - Human Sexuality **Credits:** 3
- SOC 101 - Introduction to Sociology **Credits:** 3
- SOC 125 - Domestic Violence **Credits:** 3
- SOC 140 - Sociology of Intimate Relationships and Family **Credits:** 3
- SOC 142 - Race and Ethnic Relations **Credits:** 3

## Program Outcomes

Upon successful completion of the Social and Human Services Degree program, the learner will be able to:

1. Describe the history of social problems in the U.S. and policies of the current social welfare delivery system. (SOC 220, SOC 250)
2. Apply interpersonal and clinical counseling skills with clients in the therapeutic process. (PSY 175, PSY 275)
3. Utilize crisis and trauma counseling skills and intervention strategies. (PSY 262)
4. Employ case management techniques to identify and resolve client problems. (PSY 220)
5. Discuss the impact of psychological and substance abuse. (PSY 101, PSY 175, PSY 241)
6. Identify legal and ethical issues as they apply to social and human services. (PSY 220, PSY 296)
7. Provide intervention services within local community social and human service agencies. (PSY 296)

# Video Game Development - AAS $\infty$

The Associate of Applied Science degree in Video Game Development prepares students for entry into the cutting edge career field of the design and creation of video games for commercial, casual and educational markets for use on PCs, MACs, Smartphones, tablets and game consoles.

**Credit Hours Required:** 60

*$\infty$ Note: This program can be completed entirely online. Not all general education options are offered online, however there will be a variety of online classes from which to choose in order to meet the requirements.*

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. Physical and Biological Science **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- VGD 121 - Video Game Development for Game Engines I **Credits:** 3
- VGD 122 - Video Game Development for Game Engines II **Credits:** 3
- VGD 151 - 3D Modeling and Animation I **Credits:** 3
- VGD 152 - 3D Modeling and Animation II **Credits:** 3
- VGD 171 - Video Game Development - Programming I **Credits:** 3
- VGD 172 - Video Game Development - Programming II **Credits:** 3
- VGD 180 - Game Theory and Design Principles **Credits:** 3
- VGD 221 - Video Game Development for Game Engines III **Credits:** 3
- VGD 222 - Video Game Development for Game Engines IV **Credits:** 3
- VGD 251 - 3D Modeling and Animation III **Credits:** 3
- VGD 252 - 3D Modeling and Animation IV **Credits:** 3
- VGD 280 - Game Design Documentation and Marketing **Credits:** 4
- VGD 295 - Video Game Design Project **Credits:** 4

## Program Outcomes

Upon successful completion of the Video Game Development Degree program, the learner will be able to:

1. Create video games suitable for use on a PC, MAC, or mobile device. (VGD 121, VGD 122, VGD 151, VGD 152, VGD 171, VGD 172, VGD 221, VGD 222, VGD 295)
2. Design 3D objects and animations for use in video games. (VGD 121, VGD 122, VGD 151, VGD 152, VGD 171, VGD 172, VGD 221, VGD 222, VGD 251, VGD 252, VGD 295)
3. Write error free programming for use in video games. (VGD121, VGD122, VGD 171, VGD172, VGD 221, VGD 222, VGD 295)
4. Produce video game documentation based on game design theory and principles. (VGD 180, VGD 280, VGD 295)
5. Develop Rigged Models with animations for use in video games. (VGD 151, VGD 152, VGD 221, VGD 251, VGD 252)

# Viticulture and Enology - AAS

The Viticulture and Enology degree program prepares students for a variety of careers in vineyards (vineyard workers, crew leaders, managers, viticulturists) to wineries (winemakers, cellar workers, lab technicians).

**Credit Hours Required:** 62

**Note:** Students must be 21 years of age or older to pursue the Viticulture and Enology Degree.

Click for more information about this program

## General Education Requirements

- A. Foundation Studies (12 credits)
  - 1. College Composition or Applied Communication **Credits:** 6
  - 2. Numeracy (Quantitative Literacy) **Credits:** 3
  - 3. Critical Thinking **Credits:** 3
- B. Area Studies (7 credits)
  - 1. CHM 130 (Physical & Biological Science) **Credits:** 4
  - 2. Behavioral or Social Science **Credits:** 3

## Program Requirements

- AGS 105 - Soils **Credits:** 3
- AGS 107 - Entomology **Credits:** 3
- AGS 274 - Water Management **Credits:** 3
- VEN 100 - Introduction to Viticulture **Credits:** 3
- VEN 101 - Establishing a Vinifera Vineyard **Credits:** 3
- VEN 102 - Maintaining a Vinifera Vineyard **Credits:** 3
- VEN 121 - Wines of the World **Credits:** 2
- VEN 122 - Sensory Evaluation of Wine **Credits:** 2
- VEN 195E - Winemaking Practicum **Credits:** 2
  - Note: Students must complete VEN 195E in Fall, Spring and Summer for a total of 6 credits.*
- VEN 195V - Viticulture Practicum **Credits:** 2
  - Note: Students must complete VEN 195V in Fall, Spring and Summer for a total of 6 credits.*
- VEN 200 - Science of Winemaking I **Credits:** 3
- VEN 201 - Science of Winemaking II **Credits:** 3
- VEN 202 - Science of Winemaking III **Credits:** 3

## Program Outcomes

Upon successful completion of the Viticulture and Enology Degree program, the learner will be able to:

1. Design a site for vitis vinifera production. (AGS 105, AGS 274, VEN 100, VEN 101, VEN 102)
2. Maintain crop health. (AGS 105, AGS 107, AGS 274, VEN 100, VEN 101, VEN 102, VEN 195V)
3. Grow wine grapes. (AGS 107, AGS 274, VEN 100, VEN 101, VEN 102, VEN 195V)
4. Perform steps in the winemaking process. (VEN 195E, VEN 200, VEN 201, VEN 202)
5. Evaluate wines. (CHM 130, VEN 121, VEN 122, VEN 195E, VEN 200, VEN 201, VEN 202)
6. Describe legal compliances and business functions in the wine industry. (VEN 121, VEN 195E, VEN 202)

# 3D Modeling and Animation Certificate

The 3D Modeling and Animation certificate prepares students to design and develop models and animations for use in video games and animated films. Prepares students for the Autodesk Maya Certification.

**Credit Hours Required:** 12

This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.

## Program Requirements

- VGD 151 - 3D Modeling and Animation I **Credits:** 3
- VGD 152 - 3D Modeling and Animation II **Credits:** 3
- VGD 251 - 3D Modeling and Animation III **Credits:** 3
- VGD 252 - 3D Modeling and Animation IV **Credits:** 3

## Program Outcomes

Upon successful completion of the 3D Modeling and Animation Certificate program, the learner will be able to:

1. Design 3D objects and animations for use in video games. (VGD 151, VGD 152, VGD 251, VGD 252)
2. Develop Rigged Models with animations for use in video games. (VGD 151, VGD 152, VGD 251, VGD 252)

# Accounting Assistant Certificate $\infty$

The Accounting Assistant certificate program is designed to provide the student an expanded knowledge of basic accounting and business principles while emphasizing communication and computer skills.

The Accounting Assistant program prepares the student for entry-level employment as an accounting assistant and provides for the upgrading of skills of individuals already employed.

**Credit Hours Required:** 27

**Gainful Employment Data:** View

$\infty$ **Note:** This program can be completed entirely online.

## Program Requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 121 - Introductory Accounting **Credits:** 3
- ACC 122 - Payroll Accounting **Credits:** 3
- ACC 131 - Principles of Accounting I **Credits:** 3
- ACC 132 - Principles of Accounting II **Credits:** 3
- ACC 161 - Computer Accounting with QuickBooks **Credits:** 2
- ACC 162 - Microsoft Excel and Access in Accounting Applications **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3

Select Option 1 or 2:

### Option 1

- ACC 231 - Intermediate Accounting I **Credits:** 4

### Option 2

- ACC 296 - Internship: Accounting **Credits:** 3
- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1

## Program Outcomes

Upon successful completion of the Accounting Assistant Certificate program, the learner will be able to:

1. Perform financial accounting functions using proper format and procedure based on Generally Accepted Accounting Principles (GAAP) and the International Financial and Reporting Standards (IFRS). (ACC 121, ACC 122, ACC 131, ACC 132, ACC 161, ACC 231)
2. Perform managerial accounting functions using proper format and procedure. (ACC 132)
3. Prepare, analyze, and interpret financial statements and reports for service, merchandising and manufacturing companies. (ACC 121, ACC 131, ACC 132, ACC 161, ACC 162, ACC 231)
4. Analyze and communicate the effects of basic tax rules on individuals, partnerships and corporations, and prepare basic tax returns for each. (ACC 115)
5. Use current technology and software applications to input, manage, and interpret financial information. (ACC 115, ACC 122, ACC 161, ACC 162, ACC 296, BSA 102, CSA 126)

# Additive Manufacturing Technician (RESA)

The Additive Manufacturing Technician (RESA) certificate is designed to prepare students for positions in the installation, repair and maintenance of commercial electrical and electronic equipment with an emphasis on 3D printers and their associated networks.

**Credit Hours Required:** 19

**This certificate is not currently eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

## Program Requirements

- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 115 - Computer Networking Technologies II **Credits:** 4
- ELT 102 - Electronic Fundamentals **Credits:** 3
- ELT 105 - Digital Fundamentals **Credits:** 3
- ELT 108 - 3D Printer Operation and Maintenance **Credits:** 3
- ELT 150 - Embedded Systems and IoT **Credits:** 3

## Program Outcomes

Upon successful completion of the Additive Manufacturing Technician (RESA) Certificate program, the learner will be able to:

1. Troubleshoot DC, AC and active device circuits. (ELT 102)
2. Troubleshoot digital circuits. (ELT 105)
3. Troubleshoot 3D printers. (ELT 108)
4. Troubleshoot embedded systems and IoT. (ELT 150)
5. Troubleshoot network hardware devices, network topologies, network media and network protocols and standards. (CNT 100)
6. Troubleshoot network media, protocols, operating systems, network management, and security. (CNT 115)

# Administrative Professional - Advanced Certificate $\infty$

The Administrative Professional - Advanced certificate program is designed to prepare students for entry- and mid-level clerical positions in a variety of business and office settings.

The program offers a series of skill-building opportunities with related courses in administrative office procedures and information processing. The courses are intended to give a broad introduction to the wide-ranging skills needed in this environment; the work readiness emphasis assists the learner in focusing upon their chosen business or industry while adding needed skills specific to their fields.

**Credit Hours Required:** 19-25

**Gainful Employment Data:** View

*Note: Students are expected to have mastered basic keyboarding and computer skills before beginning this program.*

*$\infty$ Note: This program can be completed entirely online.*

Visual Pathway that leads to AAS Administrative Professional - Bookkeeping Concentration

Visual Pathway that leads to AAS Administrative Professional - Legal Office Concentration

Visual Pathway that leads to AAS Administrative Professional - Medical Office Concentration

## Program Requirements

- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- BSA 130 - Business Financial Applications **Credits:** 3
- BSA 225 - Administrative Professional: Office Management **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- ENG 101 - College Composition I **Credits:** 3

Select one Workplace Readiness Concentration- A, B or C- and complete the requirements

### A. Medical Concentration

- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- HIM 110 - Introduction to Health Information Management **Credits:** 3

### B. Bookkeeping Concentration

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 121 - Introductory Accounting **Credits:** 3

### C. Legal Office Clerk Concentration

- LAW 100 - Introduction to Paralegal Studies **Credits:** 3
- LAW 102 - Legal Computer Applications **Credits:** 3
- LAW 103 - Ethics and the Law **Credits:** 3
- LAW 107 - Law Office Management **Credits:** 3

## Program Outcomes

Upon successful completion of the Administrative Professional Certificate program, the learner will be able to:

1. Communicate in a professional manner using various methods in the context of common business practices. (BSA 102, BSA 225, CSA 126, ENG 101, HIM 110, LAW 100, LAW 102, LAW 103, LAW 107)
2. Design, implement, and maintain efficient procedures for accomplishing various administrative-related tasks. (ACC 115, ACC 121, BSA 130, BSA 225, CSA 126, HIM 110, LAW 107)
3. Work as a member of a team to accomplish the goals of the organization. (BSA 102, BSA 225, LAW 103, LAW 107)
4. Use technology to organize information and complete administrative tasks and responsibilities more effectively and efficiently. (ACC 115, BSA 130, BSA 225, CSA 126, LAW 102, LAW 107)

# Administrative Professional - Basic Certificate <sup>∞</sup>

The Administrative Professional - Basic Certificate is designed to give completers the basic skills they need for entry-level clerical, receptionist, and information-sharing positions in a variety of business and office settings.

## Credit Hours Required: 7

**Note:** Students are expected to have mastered basic keyboarding and computer skills before beginning this program. This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.

<sup>∞</sup>**Note:** This program can be completed entirely online.

Visual Pathway that leads to AAS Administrative Professional - Bookkeeping Concentration

Visual Pathway that leads to AAS Administrative Professional - Computer Skills Concentration

Visual Pathway that leads to AAS Administrative Professional - Legal Office Concentration

Visual Pathway that leads to AAS Administrative Professional - Management/Leadership Skills Concentration

Visual Pathway that leads to AAS Administrative Professional - Medical Office Concentration

## Program Requirements

- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits: 1**
- CSA 126 - Microsoft Office for Windows **Credits: 3**
- ENG 101 - College Composition I **Credits: 3**

## Program Outcomes

Upon successful completion of the Administrative Professional - Basic Certificate program, the learner will be able to:

1. Communicate in a professional manner using various methods in the context of common business practices. (BSA 102, CSA 126, ENG 101)
2. Work as a member of a team to accomplish the goals of the organization. (BSA 102)
3. Use technology to organize information and complete administrative tasks and responsibilities. (BSA 102, CSA 126)

# Advanced Bookkeeping Certificate <sup>∞</sup>

The Advanced Bookkeeping certificate will prepare students for entry-level positions in a variety of business and office settings where knowledge of bookkeeping and accounting practices is required.

This certificate provides the two-semester foundation for the Accounting Assistant certificate.

**Credit Hours Required:** 20

**Gainful Employment Data:** [View](#)

**∞Note:** This program can be completed entirely online.

Visual Pathway that leads to AAS Accounting

Visual Pathway that leads to AAS Administrative Professional - Bookkeeping Concentration

## Program Requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 121 - Introductory Accounting **Credits:** 3
- ACC 122 - Payroll Accounting **Credits:** 3
- ACC 131 - Principles of Accounting I **Credits:** 3
- ACC 161 - Computer Accounting with QuickBooks **Credits:** 2
- ACC 162 - Microsoft Excel and Access in Accounting Applications **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3

## Program Outcomes

Upon successful completion of the Advanced Bookkeeping Certificate program, the learner will be able to:

1. Perform financial accounting functions using proper format and procedure based on Generally Accepted Accounting Principles (GAAP) and the International Financial and Reporting Standards (IFRS). (ACC 121, ACC 122, ACC 131, ACC 161)
2. Prepare, analyze, and interpret financial statements and reports for service, merchandising and manufacturing companies. (ACC 121, ACC 131, ACC 161, ACC 162)
3. Analyze and communicate the effects of tax rules on individuals, partnerships and corporations, and prepare basic tax returns for each. (ACC 115)
4. Use current technology and software applications to input, manage, and interpret financial information. (ACC 115, ACC 122, ACC 161, ACC 162, CSA 126)

# Animal Care and Management Certificate

The Animal Care and Management Certificate Program is designed to prepare students for entry level positions in the pet and exotic animal industry including veterinary assistant, zookeeper, animal control officer, entrepreneur, pet store technician and boarding/grooming facilities management.

**Credit Hours Required:** 30

**Gainful Employment Data:** [View](#)

## Program Requirements

- AGE 100 - Introductory Equine Science **Credits:** 4
- AGS 120 - Introduction to the Animal Industry **Credits:** 4
- AGS 215 - Agricultural Mechanics **Credits:** 3
- AGS 261 - Aquaculture Science **Credits:** 4
- AGS 264 - Aquaculture Management **Credits:** 4
- AGS 280 - Zoo and Domestic Animal Care **Credits:** 4
- AGS 282 - Zoo and Domestic Animal Behavior **Credits:** 4

Choose one of the following electives:

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- AGS 102 - Agribusiness Management **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3

## Program Outcomes

Upon successful completion of the Animal Care and Management Certificate program, the learner will be able to:

1. Manage an extensive agriculture facility. (AGE 100, AGS 101 or AGS 102, AGS 120, AGS 215, AGS 274, AGS 261, AGS 264, AGS 280)
2. Rear fish from egg to market. (AGS 261, AGS 264)
3. Develop a water delivery and quality management system. (AGS 261, AGS 264)
4. Develop and implement a comprehensive management program for exotic and domestic animals. (AGS 261, AGS 264, AGS 280, AGS 282)

# Animation Certificate

The Film and Media Arts Animation Certificate brings together storytelling, art, performance, sound design and technology to create unique works. Students become engaged in the production of challenging and relevant animation for film, television, interactive content and new media. This rapidly changing craft requires an attitude of constant learning and problem solving while striving for artistic excellence. We will help you: discover your creative voice; master the use of visual language; focus your skill set; learn the history of film and animation.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

## Program Requirements

- ART 110 - Drawing I **Credits:** 3
- ART 112 - Two-Dimensional Design **Credits:** 3
- FMA 100 - Animation Principles **Credits:** 3
- FMA 103 - Screenwriting I **Credits:** 3
- FMA 113 - Stop Motion Animation **Credits:** 3
- FMA 114 - Animation Production **Credits:** 3
- VGD 151 - 3D Modeling and Animation I **Credits:** 3
- VGD 152 - 3D Modeling and Animation II **Credits:** 3

## Program Outcomes

Upon successful completion of the Animation Certificate program, the learner will be able to:

1. Watch & Analyze animation media, storytelling techniques & characters. (ART 110, ART 112, FMA 100, FMA 114)
2. Develop skills in Claymation, puppet animation & other in-camera animation formats. (ART 110, FMA 113, FMA 114, VGD 151)
3. Practice skills in character building, set construction, in-camera special effects and pixelation. (ART 110, FMA 113, FMA 114, VGD 151, VGD 152)
4. Create a short film in the stop-motion format, with sound. (ART 110, FMA 113, FMA 114)
5. Develop characters that think and express emotion. (FMA 100, FMA 103, FMA 113, FMA 114, VGD 152)
6. Create a short film using chosen animation technique. (All courses in program)
7. Develop creative solutions to visual problems. (ART 110, ART 112, FMA 100, FMA 114)
8. Identify, analyze, synthesize & communicate design principles. (ART 110, ART 112, FMA 114)
9. Articulate traditional & non-traditional art examples & how those examples alter popular visual literacy. (ART 110, ART 112, FMA 100, FMA 114)
10. Use professional quality software tools to create static & animated 3D objects suitable for use in video games and animation. (FMA 114, VGD 151, VGD 152)

# Athletic Coaching Certificate

The Athletic Coaching Certificate prepares the student for entry level employment through cross disciplinary instruction in the fields of exercise science, biology, psychology, physical education and first aid. In addition, this program prepares the student, or current coaching professional, for successful completion of the national coaching certification exam with American Sport Education Program (ASEP), which is an approved provider of coaching education to the Arizona Interscholastic Association (AIA).

**Credit Hours Required:** 16

**Gainful Employment Data:** [View](#)

## Program Requirements

- BIO 160 - Introduction to Human Anatomy and Physiology **Credits:** 4
- **OR** BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- PHE 150 - Prevention of Athletic Injuries and Emergency Care **Credits:** 3
- PHE 154 - Theory of Coaching **Credits:** 3
- PHE 168 - Introduction to Sport Psychology **Credits:** 3
- PSY 245 - Human Growth and Development **Credits:** 3

## Program Outcomes

Upon successful completion of the Athletic Coaching Certificate program, the learner will be able to:

1. Develop a coaching philosophy and describe the benefits of an athlete centered coaching philosophy, including coaching objectives and communication style.  
(PHE 154, PHE 168, PSY 245)
2. Discuss methods of teaching physical, mental, technical and tactical skills training, including strategies for team management.  
(PHE 150, 154, 168; PSY 245, BIO 160 or 201)
3. Use assertive communication techniques and strategies for motivating various age groups and skill levels. (PHE 154, 168; PSY 245)
4. Apply strategies for injury prevention and recognize exercise and sport related injuries and illnesses. (PHE 150)

# Auto Body Paint and Collision Technology Certificate

The Auto Body Paint and Collision Technology certificate prepares students for entry-level employment in the auto body and collision industry. The program addresses all areas of basic auto body repair and refinishing including: frame and body repair, painting, special effects and graphic design, and upholstery.

**Credit Hours Required:** 21

**Gainful Employment Data:** [View](#)

## Program Requirements

- AUT 105 - Introduction to Auto Body Repair **Credits:** 4
- AUT 106 - Automotive/Motorcycle Custom Painting **Credits:** 3
- AUT 107 - Autographics/Airbrushing **Credits:** 3
- AUT 110 - Advanced Airbrushing Techniques **Credits:** 3
- AUT 111 - Auto Body Welding and Collision Repair **Credits:** 3
- AUT 275 - Basic Automotive Upholstery **Credits:** 3
- AUT 276 - Advanced Upholstery **Credits:** 2

## Program Outcomes

Upon successful completion of the Auto Body Paint and Collision Technology Certificate program, the learner will be able to:

1. Paint a car. (AUT 106)
2. Upholster a car. (AUT 275, AUT 276)
3. Repair auto body damage. (AUT 105, AUT 111)
4. Apply Airbrushing and graphics. (AUT 107, AUT 110)

# Automotive Master Technician Certificate

Completion of this certificate program will prepare students for the National Automotive Service Excellence Certification examinations to become a Certified Master Automobile Technician and a Certified Engine Machinist. In addition, students will develop troubleshooting and analysis skills that will increase their diagnostic and repair abilities. Applied computer skills and information distribution within repair facilities are incorporated in this certificate.

**Credit Hours Required:** 44-45

**Gainful Employment Data:** View

**Note:** National Automotive Service Excellence (ASE) certification is essential to individuals preparing for positions in the automotive industry. ASE certification requires hands-on working experience as well as completion of written examinations. Two years of post high school educational training, such as that offered in the automotive certificate and degree programs at Yavapai College, may be substituted for up to one year of the hands on work experience requirement of the ASE certification.

## Program Requirements

- AUT 100 - Automotive/Diesel Preventative Maintenance **Credits:** 2
- AUT 109 - Auto/Diesel Electrical Systems **Credits:** 4
- AUT 122 - Automatic Transmissions and Transaxles **Credits:** 4
- AUT 123 - Automotive Brakes **Credits:** 4
- AUT 124 - Auto/Diesel Manual Drive Trains **Credits:** 4
- AUT 126 - Auto/Diesel Suspension and Steering **Credits:** 4
- AUT 128 - Auto/Diesel Heating and Air Conditioning **Credits:** 4
- AUT 153 - Auto Engine Repair **Credits:** 4
- AUT 230 - Advanced Light/Medium Duty Diesel Diagnosis 1500-4500 Series **Credits:** 4
- AUT 231 - Auto Engine Diagnostics **Credits:** 5

## Program Electives

Select 2 courses from the following:

- IPT 261 - Machine Shop **Credits:** 3
- MTC 105 - Introduction to Motorcycle and UTV Technology **Credits:** 3
- MTC 215 - Motorcycle and UTV Service Procedures **Credits:** 3
- WLD 112 - Basic Welding I **OR** WLD 113 - Basic Welding II **Credits:** 2

## Program Outcomes

Upon successful completion of the Automotive Master Technician Certificate program, the learner will be able to:

1. Identify the parts and rebuild a basic engine and a modified performance engine. (AUT 108, AUT 151)
2. Explain and diagnose electrical circuits, electrical components, and computer related problems. (AUT 109, AUT 252)
3. Rebuild an automatic transmission and transaxle manual transmission, and transaxle driveline and differential. (AUT 122, AUT 124)
4. Replace steering and suspension components and align a front-end. (AUT 126)
5. Diagnose and repair automotive air conditioning and heating systems. (AUT 128)
6. Tune up, adjust and diagnose an internal combustion engine system. (AUT 131)
7. Diagnose, remove, and replace an entire automotive brake system including ABS and traction control system. (AUT 123)

# Automotive Technician (MLR) Certificate

The purpose of this certificate program is to prepare students with the technical skills to obtain direct employment in the automotive industry and to upgrade the skills of individuals already employed in the industry. The courses within this certificate program prepare students for the National Automotive Service Excellence certification examinations which are required for most entry-level employment opportunities in the industry. Upon completion of each course, the student will receive an Award of Completion which will identify the competencies achieved.

**Credit Hours Required:** 18

**Gainful Employment Data:** View

*Note: National Automotive Service Excellence (ASE) certification is essential to individuals preparing for positions in the automotive industry. ASE certification requires hands-on working experience as well as completion of written examinations. Two years of post high school educational training, such as that offered in the automotive certificate and degree programs at Yavapai College, may be substituted for up to one year of the hands-on work experience requirement of the ASE certification.*

## Program Requirements

- AUT 100 - Automotive/Diesel Preventative Maintenance **Credits:** 2
- AUT 109 - Auto/Diesel Electrical Systems **Credits:** 4
- AUT 123 - Automotive Brakes **Credits:** 4
- AUT 126 - Auto/Diesel Suspension and Steering **Credits:** 4
- AUT 153 - Auto Engine Repair **Credits:** 4

## Program Outcomes

Upon successful completion of the Automotive Technician Certificate program, the learner will be able to:

1. Identify, diagnose and repair problems with internal combustion engines. (AUT 108)
2. Diagnose and repair basic electrical problems. (AUT 100, AUT 109)
3. Remove and replace friction brake pads, friction brake shoes, and bleed a hydraulic system. (AUT 123)
4. Identify major components of the automotive suspension and steering system. (AUT 126)

# Basic Tax Certificate ∞

The Basic Tax certificate prepares the student for an entry-level position in a tax preparation enterprise or a variety of business settings where knowledge of taxation and accounting practices is required.

**Credit Hours Required:** 19

**Gainful Employment Data:** [View](#)

**∞Note:** *This program can be completed entirely online.*

## Program Requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 116 - Advanced Tax Planning and Preparation **Credits:** 4
- ACC 121 - Introductory Accounting **Credits:** 3
- ACC 131 - Principles of Accounting I **Credits:** 3
- ACC 296 - Internship: Accounting **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3

## Program Outcomes

Upon successful completion of the Basic Tax Certificate program, the learner will be able to:

1. Perform financial accounting functions using proper format and procedure based on Generally Accepted Accounting Principles (GAAP) and the International Financial and Reporting Standards (IFRS). (ACC 121, ACC 131)
2. Prepare, analyze, and interpret financial statements and reports for service, merchandising and manufacturing companies. (ACC 121, ACC 131)
3. Analyze and communicate the effects of tax rules on individuals, partnerships and corporations, and prepare complex tax returns for each. (ACC 115, ACC 116, ACC 296)
4. Use current technology and software applications to input, manage, and interpret financial information. (ACC 115, ACC 116, CSA 126, ACC 296)

# Bookkeeping Certificate <sup>∞</sup>

The Bookkeeping certificate prepares students for entry-level positions in a variety of business and office settings where basic knowledge of bookkeeping is required.

This certificate provides the foundation for several other certificate programs: Administrative Professional, Advanced Bookkeeping, Basic Tax and Accounting Assistant.

**Credit Hours Required:** 9

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

**∞Note:** This program can be completed entirely online.

Visual Pathway that leads to AAS Accounting

Visual Pathway that leads to AAS Administrative Professional - Bookkeeping Concentration

## Program Requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 121 - Introductory Accounting **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3

## Program Outcomes

Upon successful completion of the Bookkeeping Certificate program, the learner will be able to:

1. Perform financial accounting functions using proper format and procedure based on Generally Accepted Accounting Principles (GAAP). (ACC 121)
2. Prepare, analyze, and interpret financial statements and reports for service and merchandising companies. (ACC 121)
3. Analyze and communicate the effects of basic tax rules on individuals, partnerships and corporations, and prepare basic tax returns for each. (ACC 115)
4. Use current technology and software applications to input, manage, and communicate financial information. (CSA 126)

# Canine Care and Handling Certificate

The Canine Care and Handling Certificate prepares students for entrepreneurship, employment or advancement in a variety of canine fields by developing student/canine handling skills, communication skills, health care and business operations knowledge. Students also complete the training requirements for the Therapy & Service Dog Team Skills Certificate which provides skills needed to take the Canine Good Citizen (CGC) test and a therapy dog evaluation exam offered by evaluators from three national therapy team organizations.

**Credit Hours Required:** 16

**Gainful Employment Data:** [View](#)

## Program Requirements

- AGC 190 - Canine Behavior and Psychology | **Credits:** 3
- AGC 192 - Canine Behavior and Psychology II **Credits:** 3
- AGC 193 - Introduction to Canine Health Care **Credits:** 3
- AGC 194 - Canine Business **Credits:** 3
- AGC 195 - Canine Public Skills **Credits:** 2

Choose one of the following electives:

- AGC 196 - Canine Sport Activities **Credits:** 2
- AGC 197 - Introduction to Service Dogs **Credits:** 2

## Program Outcomes

Upon successful completion of the Canine Care and Handling Certificate program, the learner will be able to:

1. Apply positive canine training and handling skills. (AGS 190, AGS 192, AGS 195)
2. Explain canine behavior and psychology and implement into a training and behavior modification program. (AGS 190, AGS 192, AGS 195)
3. Articulate and use canine training concepts and skills in working with service and therapy dogs. (AGS 195)
4. Apply communication skills with the general public. (AGS 194, AGS 195)
5. Use canine handling skills in diverse public environments and with distractions. (AGS 190, AGS 192, AGS 195)
6. Identify and describe general canine anatomy. (AGS 193)
7. Identify a variety of canine illnesses and discuss disease control strategies. (AGS 193)
8. Explain and administer canine first aid. (AGS 193)
9. Apply grooming techniques and skills. (AGS 193)
10. Discuss canine nutritional needs and apply nutrition options. (AGS 193)
11. Explain general breeding practices. (AGS 193)
12. Identify various canine related businesses and explain how they operate. (AGS 194)
13. Develop a canine related business plan. (AGS 194)
14. Enhance an existing canine related business. (AGS 190, AGS 192, AGS 194)
15. (A) Apply handling and communication skills in canine sports activities (AGS 196); or (B) Identify ADA laws and compare Assistance and Service Dogs. (AGS 197)

# Cisco Networking Specialist Certificate

The Cisco Networking Specialist certificate is designed for students to install and support medium to large computer networks with an emphasis on configuration of Cisco routers and switches. This program prepares students for the Cisco Certified Network Associate (CCNA) certification exam.

**Credit Hours Required:** 20

**Gainful Employment Data:** [View](#)

## Program Requirements

- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 115 - Computer Networking Technologies II **Credits:** 4
- CNT 140 - Cisco Routing and Switching I **Credits:** 4
- CNT 150 - Cisco Routing and Switching II **Credits:** 3
- CNT 160 - Cisco Routing and Switching III **Credits:** 3
- CNT 170 - Cisco Routing and Switching IV **Credits:** 3

## Program Outcomes

Upon successful completion of the Cisco Networking Specialist Certificate program, the learner will be able to:

1. Describe and configure the hardware and software used in a medium to large sized computer network. (CNT 100)
2. Discuss the methods and operation of local and wide area networks. (CNT 115)
3. Describe the function of TCP/IP and the OSI model and related devices. (CNT 140)
4. Configure Cisco routing technologies. (CNT 150)
5. Configure Cisco switching and wireless technologies. (CNT 160)
6. Configure and describe wide area network access technologies. (CNT 170)

# Computed Tomography Certificate

The Computed Tomography (CT) Certificate program is comprised of two courses designed as facilitated and self-directed learning for radiologic professionals who are established and presently employed in the field. The program, which can be completed in one semester, offers both didactic coursework and clinical skills experiences necessary to prepare the student to challenge the ARRT Advanced Registry in Computed Tomography certificate exam.

**Credit Hours Required:** 6

This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.

## Program Requirements

- ICE 100 - Computed Tomography Certification **Credits:** 3
- ICE 110 - Computed Tomography Clinical Education I **Credits:** 3

## Program Outcomes

Upon successful completion of the Computed Tomography Certificate program, the learner will be able to:

1. Explain the design of CT scanner generations.
2. Explain how adjusting operator console parameters affect CT image data.
3. Describe the process and the factors that influence data acquisition.
4. Define the tools used and the postprocessing techniques needed for image enhancement.
5. Discuss the role and ethical considerations of the CT technologist in reducing radiation dose including technical factor selection, positioning, and shielding.
6. Discuss factors that affect CT image quality including artifacts.
7. Perform CT exams as outlined in the competency requirements for post-primary certification of the American Registry of Radiologic Technologists (ARRT) in Computed Tomography.
8. Identify specific organs or structures on a cross-sectional acquired or reformatted CT image.
9. Identify pathologic processes on CT images.
10. Review CT images for quality, accuracy and completeness.

# Computer Application Specialist Certificate $\infty$

The Computer Application Specialist certificate is designed to provide students with the skills necessary to be proficient working with current software applications in an office environment.

**Credit Required:** 17

**Gainful Employment Data:** [View](#)

$\infty$ **Note:** This program can be completed entirely online.

## Program Requirements

- CSA 124 - Creating Dynamic Forms **Credits:** 2
- CSA 133 - Microsoft Publisher **Credits:** 2
- **OR** CSA 134 - Microsoft Word Desktop Publishing **Credits:** 2
- CSA 138 - Microsoft Excel **Credits:** 2
- CSA 139 - Microsoft Access **Credits:** 2
- CSA 140 - Microsoft Word **Credits:** 2
- CSA 142 - Microsoft PowerPoint **Credits:** 2
- CSA 144 - Creating Web Pages Using Dreamweaver **Credits:** 3
- CSA 172 - Microsoft Windows **Credits:** 2

## Program Outcomes

Upon successful completion of the Computer Application Specialist Certificate program, the learner will be able to:

1. Accomplish a variety of office tasks using current software programs. (All courses within the program)
2. Develop the software skills necessary to solve various office problems/scenarios by using current software applications in the office environment. (All courses within the program)
3. Manage information systems and electronic media to accomplish office tasks efficiently. (All courses within the program)

# Computer Networking Technician Certificate

This certificate is designed to provide students with the skills necessary to install, troubleshoot and support computers and servers in a small to medium-sized computer network. Students are prepared for two industry certifications: CompTIA A+ Certified IT Technician and CompTIA Network+. Successful students will have the skills required to gain employment in entry-level positions in the information technology field.

**Credit Hours Required:** 14

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.*

## Program Requirements

- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 110 - A+ Computer Technician Certification **Credits:** 4
- CNT 115 - Computer Networking Technologies II **Credits:** 4
- CNT 120 - Introduction to Windows Server **Credits:** 3

## Program Outcomes

Upon successful completion of the Computer Networking Technician Certificate program, the learner will be able to:

1. Describe and configure the hardware and software used in a small to medium sized computer network. (CNT100)
2. Maintain and repair personal computers. (CNT110)
3. Discuss the methods and operation of local and wide area networks. (CNT115)
4. Perform administrative and troubleshooting tasks on Windows server operating systems. (CNT120)

# Computer Numerical Controlled (CNC) Machining Certificate

The CNC Machining certificate is designed to prepare students for entry level CNC machining and programming positions. The program offers a series of skill-building courses in CNC machining and CAM programming for the individual desiring full-time employment in the CNC manufacturing industry.

**Credit Hours Required:** 18

**Gainful Employment Data:** [View](#)

## Program Requirements

- CNC 101 - CNC Machine Operator **Credits:** 2
- CNC 102 - CNC Machine Setup **Credits:** 2
- CNC 201 - Computer Aided Programming for CNC Machining **Credits:** 3
- CNC 202 - 3-D Programming and Rapid Prototyping for CNC **Credits:** 4
- MET 100 - Introduction to Manufacturing Technology **Credits:** 4

Choose one of the following electives:

- EGR 180 - CAD (Computer Aided-Drawing) with SolidWorks **Credits:** 3
- IPT 261 - Machine Shop **Credits:** 3

## Program Outcomes

Upon successful completion of the Computer Numerical Controlled (CNC) Machining Certificate program, the learner will be able to:

1. Program and operate a CNC mill and lathe. (CNC 101, MET 100)
2. Design a product for CNC machining. (CNC 201, CNC 202)
3. Reverse engineer a product for 3D replication. (CNC 202, EGR 180)
4. Set tools for CNC machining of a given product. (CNC 102)
5. Safely utilize machine shop equipment. (CNC 101, IPT 261)

# Criminal Justice and Security Certificate <sup>∞</sup>

This Criminal Justice and Security certificate program is designed for those individuals interested in training in the criminal justice field, particularly as it relates to security and international crime.

**Credit Hours Required:** 21

**Gainful Employment Data:** View

*∞Note: This program can be completed entirely online.*

## Program Requirements

- AJS 101 - Introduction to Administration of Justice **Credits:** 3
- AJS 123 - Ethics and Criminal Justice **Credits:** 3
- AJS 250 - Introduction to Global Security and Intelligence **Credits:** 3
- AJS 252 - Homeland Security **Credits:** 3
- AJS 254 - Global Crime and Criminal Justice **Credits:** 3
- AJS 256 - Terrorism **Credits:** 3
- AJS 258 - Information Protection and Computer Security **Credits:** 3

## Program Outcomes

Upon successful completion of the Criminal Justice and Security Certificate program, the learner will be able to:

1. Explain the historical development of American criminal law from its English common law roots to the present. (AJS 101)
2. Analyze criminal conduct in the context of historical, social, political and legal developments. (AJS 101)
3. Analyze the intersection of law, morality, and ethics in our modern society. (AJS 123)
4. Discuss global business security issues and transnational events which have global repercussions. (AJS 250)
5. Analyze Homeland Security and homeland defense policies and strategies, with a focus on immigration and border security. (AJS 252)
6. Describe unique criminal justice challenges posed by international criminal activity and organizations. (AJS 254)
7. Discuss the history and causes of terrorism. (AJS 256)
8. Analyze the unique challenges to protection of information and computer security posed by cyberspace. (AJS 258)

# Culinary Arts Fundamentals Certificate

The Certificate in Culinary Arts Fundamentals is designed to equip students with basic skills in culinary arts. The program provides instruction in culinary concepts and terminology, kitchen safety and sanitation, equipment usage, basic nutritional guidelines, standard and metric measurements, food costing, and theory and practice in the production of culinary products. Courses emphasize fundamental cooking techniques and preparation methods for hot foods, breakfast items, salads, sandwiches, dressings, breads and pastries.

**Credit Hours Required:** 16

**Gainful Employment Data:** [View](#)

[Click for more information about this program](#)

## Program Requirements

- CUL 101 - Culinary Principles **Credits:** 4
- CUL 102 - Culinary Fundamentals: Hot Foods **Credits:** 4
- CUL 103 - Culinary Fundamentals: Breakfast & Garde Manger **Credits:** 4
- CUL 104 - Culinary Fundamentals: Baking & Pastry **Credits:** 4

## Program Outcomes

Upon successful completion of the Culinary Arts Fundamentals Certificate program, the learner will be able to:

1. Identify and apply culinary principles, nutrition practices, safety and sanitation techniques for basic kitchen and food service operation. (CUL 101, CUL 102, CUL 103, CUL 104)
2. Identify fruit and vegetable classifications and prepare and use a variety of products. (CUL 101)
3. Use kitchen small-wares, equipment, knives and bakery equipment. (CUL 101, CUL 102, CUL 103, CUL 104)
4. Apply food costing techniques and recipe conversions using standard and metric measurements. (CUL 101, CUL 102, CUL 103, CUL 104)
5. Fabricate meat, fish and poultry products. (CUL 102)
6. Produce basic stocks, sauces and soups. (CUL 101, CUL 102)
7. Cook poultry, fish and meat products. (CUL 101, CUL 102, CUL 103)
8. Produce a variety of cheeses and pastas. (CUL 103)
9. Produce dressings for salads and sandwiches. (CUL103)
10. Prepare simple salads, sandwiches, breakfast foods, and hors d'oeuvres appropriate for the food service industry. (CUL 101, CUL 103)
11. Prepare basic breads, rolls, cakes, cookies, bakery sauces, icings and fillings. (CUL 104)

# Cybersecurity Specialist Certificate

The Cybersecurity Specialist certificate is designed to prepare students for entry-level positions in cybersecurity and network administration. Students learn to install, support, secure, and troubleshoot network devices such as routers, switches, and servers. In addition, students learn how to configure virtual private networks, firewalls, and intrusion prevention systems. This program helps prepare students for the CompTIA Security+ and Cisco Certified Network Associate (CCNA) Security certifications and provides a strong knowledge base to pursue advanced cybersecurity certifications such as Certified Information Systems Security Professional (CISSP) and Certified Ethical Hacker (CEH).

**Credit Hours Required:** 26

**Gainful Employment Data:** [View](#)

*This certificate is not currently eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.*

## Program Requirements

- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 105 - Cybersecurity Principles **Credits:** 3
- CNT 115 - Computer Networking Technologies II **Credits:** 4
- CNT 135 - Security+: Implementing and Maintaining Network Security **Credits:** 3
- CNT 140 - Cisco Routing and Switching I **Credits:** 4
- CNT 150 - Cisco Routing and Switching II **Credits:** 3
- CNT 190 - Programming and Scripting for Network Admins **Credits:** 3
- CNT 250 - CCNA Security **Credits:** 3

## Program Outcomes

Upon successful completion of the Cybersecurity Specialist Certificate program, the learner will be able to:

1. Describe and configure the hardware and software used in a small to medium sized computer network. (CNT 100)
2. Describe the terms and technologies that comprise the field of cybersecurity, and implement strategies for managing an information security program. (CNT 105)
3. Discuss the methods and operation of local and wide area networks including routing protocols, WAN technologies, the OSI model, network operating systems, network security, and virtualization. (CNT 115)
4. Configure and implement network security. (CNT 135)
5. Configure and troubleshoot the TCP/IP protocol suite including IPv4 and IPv6 addressing; and perform basic router and switch configuration. (CNT 140)
6. Configure Cisco routing and switch technologies. (CNT 150)
7. Write and debug scripts for application in a network administration environment. (CNT 190)
8. Install, troubleshoot, and monitor a secure network to maintain integrity, confidentiality, and availability of data and devices. (CNT250)

# Diesel Technician Certificate

The Diesel Technician certificate is designed to prepare students for entry-level positions in heavy diesel mechanics.

**Credit Hours Required:** 30

**Gainful Employment Data:** [View](#)

## Program Requirements

- AUT 100 - Automotive/Diesel Preventative Maintenance **Credits:** 2
- AUT 108 - Diesel Engine Repair Technology **Credits:** 4
- AUT 109 - Auto/Diesel Electrical Systems **Credits:** 4
- AUT 124 - Auto/Diesel Manual Drive Trains **Credits:** 4
- AUT 126 - Auto/Diesel Suspension and Steering **Credits:** 4
- AUT 128 - Auto/Diesel Heating and Air Conditioning **Credits:** 4
- AUT 135 - Diesel Braking Systems **Credits:** 4
- AUT 225 - Diesel Engine Performance **Credits:** 4

## Program Outcomes

Upon successful completion of the Diesel Technician Certificate program, the learner will be able to:

1. Analyze and repair automotive and light truck diesel engines. (AUT108)
2. Analyze and repair automotive and light truck diesel fuel system components. (AUT108, AUT225)
3. Analyze and repair automotive and diesel truck electrical system components. (AUT109, AUT 128, AUT225)
4. Perform basic service maintenance on diesel cars and diesel trucks. (AUT100, AUT126, AUT128, AUT135)
5. Analyze and repair drive trains. (AUT124)
6. Analyze diesel truck computer controlled systems. (AUT 109, AUT128, AUT225).

# Early Childhood Education Advanced Certificate

A student who completes the Advanced Certificate in ECE is prepared to enter the early care and education profession as a highly skilled teacher of birth-preschool. The Advanced ECE certificate can also fulfill the Early Childhood Endorsement requirements from the Arizona Department of Education to assist elementary education teachers to earn their early childhood endorsement.

All credits earned apply to the Associate of Applied Science degree in Early Childhood Education.

**Minimum Credits Required:** 30-31

**Gainful Employment Data:** [View](#)

**Note:** A current Arizona fingerprint clearance card is required for students working in the Del E. Webb Family Enrichment Center. A current card in Pediatric First Aid and Safety will be required for graduation.

## Program Requirements

- ECE 200 - Introduction to Early Childhood Education **Credits:** 3
  - ECE 202 - Early Childhood Curriculum **Credits:** 3
  - ECE 210 - Infant and Toddler Development **Credits:** 3
  - **OR** ECE 216 - Playing to Learn **Credits:** 3
  - ECE 222 - Introduction to the Exceptional Learner **Credits:** 3
  - ECE 230 - Language and Literacy Experiences **Credits:** 3
  - ECE 234 - Child Development **Credits:** 3
  - ECE 240 - Family and Community Partnerships **Credits:** 3
  - ECE 260 - Guidance of Young Children **Credits:** 3
  - ECE 270 - Health, Safety and Nutrition **Credits:** 3
  - ECE 290 - Practicum: Directed Field Experience Birth-Preschool **Credits:** 3
  - **OR** ECE 291 - Advanced Practicum: Supervised Field Experience Birth-Preschool **Credits:** 4
- Note:** ECE 291 is required for those seeking an Early Childhood Endorsement from the Arizona Department of Education. See an Academic Advisor for detailed information.

## Program Outcomes

Upon successful completion of the Early Childhood Education - Advanced Certificate program, the learner will be able to:

1. Build strong relationships with families through understanding, respect and valuing the characteristics of both the families and their communities. (ECE 240)
2. Articulate historical perspectives, as well as current trends, in the field of Early Childhood Education. (ECE 200)
3. Apply relationship-based proactive strategies to promote pro-social development of young children, aged birth through 8 years. (ECE 260)
4. Identify strategies to plan and implement instructional practices to promote literacy in children birth-age eight. (ECE 230)
5. Use formal and informal observation techniques to document the development and learning in young children. (ECE 210, ECE 216, ECE 222, ECE 234, ECE 290, ECE 291)
6. Provide opportunities and environments that support the physical, social, emotional, cognitive, language and creative development and learning in children birth-age eight. (ECE 202, ECE 216, ECE 222, ECE 290, ECE 291)
7. Apply ethical and professional standards that emphasize reflective practices in working with young children, parents, other professionals and self. (ECE 202, ECE 210, ECE 216, ECE 222, ECE 290, ECE 291)
8. Implement basic health, safety, and nutritional practices with young children as required by regulation. (ECE 270, ECE 290, ECE 291)

# Early Childhood Education Basic Certificate

The Basic Certificate in Early Childhood Education is a point of entry or a continuation of professional development in the field of Early Care and Education. The Basic ECE certificate includes competencies that will prepare a student to apply for the national CDA credential.

Twelve credits earned apply to the ECE Advanced Certificate.

**Credit Hours Required:** 12

**Note:** A current Arizona fingerprint clearance card is required for students working in the Del E. Webb Family Enrichment Center. A current card in Pediatric First Aid and Safety will be required for graduation.

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

## Program Requirements

- ECE 200 - Introduction to Early Childhood Education **Credits:** 3
- ECE 230 - Language and Literacy Experiences **Credits:** 3
- ECE 240 - Family and Community Partnerships **Credits:** 3
- ECE 260 - Guidance of Young Children **Credits:** 3

## Optional Course for CDA National Credential:

- ECE 190 - Child Development Associate (CDA) Portfolio Preparation **Credits:** 3

**Note:** ECE 190 is required for those interested in receiving the CDA National Credential through the Council of Professional Recognition (required for all entry-level Head Start employees).

## Program Outcomes

Upon successful completion of the Early Childhood Education - Basic Certificate program, the learner will be able to:

1. Build strong relationships with families through understanding, respect and valuing the characteristics of both the families and their communities. (ECE 240)
2. Articulate historical perspectives, as well as current trends, in the field of Early Childhood Education. (ECE 200)
3. Apply relationship-based proactive strategies to promote pro-social development of young children, aged birth through 8 years. (ECE 260)
4. Identify strategies to plan and implement instructional practices to promote literacy in children birth- age eight. (ECE 230)
5. Apply for a credential from the Council of Professional Recognition (applicable only to students applying for the national CDA credential). (ECE 190)

# Electric Utility Technology Certificate

The certificate in Electric Utility Technology is designed to prepare the student for a position as a pre-apprentice level line worker who is familiar with the use of tools, materials, and equipment of the electric utility industry. Students will be trained in power line installation and maintenance, pole climbing and use of tools, truck and equipment operation, and overhead and underground distribution, construction and maintenance of electrical lines.

**Credit Hours Required:** 33

**Gainful Employment Data:** [View](#)

**Note:** Field training courses include CPR/First Aid certification training, and Commercial Driving License (CDL) manual, medical form, and driving practice. Most utility linework positions require a CDL Class A license and current CPR/First Aid Certification.

## Program Requirements

- CPD 104 - Career and Personal Development **Credits:** 3
- ELT 101 - Basic Electricity **Credits:** 4
- ELT 141 - Electrical Apparatus **Credits:** 4
- ELT 201 - Introduction to Linework I **Credits:** 2
- ELT 202 - Field Training I (Lineworker) **Credits:** 6
- ELT 211 - Introduction to Linework II **Credits:** 2
- ELT 212 - Field Training II (Lineworker) **Credits:** 6
- MAT 100 - Technical Mathematics **Credits:** 3
- PPT 120 - Energy Industry Fundamentals **Credits:** 3

## Program Outcomes

Upon successful completion of the Electric Utility Technology Certificate program, the learner will be able to:

1. Demonstrate basic AC and DC electrical principles. (ELT 101, ELT 141, ELT 211, ELT 212, MAT 100, PPT 120)
2. Demonstrate linework equipment, tools, techniques, and safety practices. (ELT 141, ELT 201, ELT 202, ELT 211, ELT 212, PPT 120)
3. Review the history, regulations, and components of the electrical industry (ELT 201, PPT 120)
4. Develop skills, materials, and industry connections for successful application and employment. (CPD 104)

# Electrical Instrumentation Technician Certificate

The Electrical Instrumentation Technician certificate is designed to prepare students for positions in the installation, repair and maintenance of commercial electrical and electronic equipment.

**Credit Hours Required:** 30

**Gainful Employment Data:** [View](#)

**Note:** Freeport McMoRan, Inc. and Asarco sponsor mining programs designed to prepare students for direct employment in the mining industry. There are special admission requirements for these programs. Contact (928) 776-2002 for details.

## Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- **OR** CSA 126 - Microsoft Office for Windows **Credits:** 3
- ELT 111 - DC Electrical Systems **Credits:** 3
- ELT 112 - AC Electrical Systems **Credits:** 3
- ELT 126 - Solid State Devices **Credits:** 3
- ELT 162 - Microprocessors & Microcontrollers **Credits:** 2
- ELT 165 - Programmable Logic Controllers **Credits:** 2
- ELT 171 - Process Control Instrumentation **Credits:** 3
- ELT 183 - Digital Circuits **Credits:** 3
- ELT 272 - Motors and Motor Controls **Credits:** 3
- MAT 100 - Technical Mathematics **Credits:** 3
- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2

## Program Outcomes

Upon successful completion of the Electrical Instrumentation Technician Certificate program, the learner will be able to:

1. Troubleshoot direct and alternating current circuits. (ELT 111, ELT 112, MAT 100)
2. Troubleshoot digital, microprocessor and programmable controller-based circuits. (ELT 162, ELT 165, ELT 183)
3. Troubleshoot solid state circuits. (ELT 126)
4. Troubleshoot process control instrumentation and motor control circuits. (ELT 171, ELT 272)
5. Troubleshoot pneumatic and hydraulic systems. (MET 160)
6. Utilize Microsoft Office to create Word, Excel, Access and PowerPoint files. (AGS 101 or CSA 126)

# Electronics - Advanced Electronics Certificate

The Advanced Electronics Certificate trains students for careers in the operation, maintenance and repair of complex electronic equipment. This certificate provides training in communications circuits and hands-on troubleshooting. All instruction emphasizes a hands-on approach utilizing sophisticated test equipment.

**Credit Hours Required:** 5

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

## Program Requirements

- ELT 221 - Communication Systems and Circuits **Credits:** 3
- ELT 258 - Electronic Troubleshooting **Credits:** 2

## Program Outcomes

Upon successful completion of the Electronics - Advanced Certificate program, the learner will be able to:

1. Troubleshoot solid-state and communication circuits. (ELT 221)
2. Troubleshoot pre-bugged equipment including symptom recognition, fault isolation and repair. (ELT 258)

# Electronics - Analog Electronics Certificate

The Analog Electronics Certificate trains students for careers in the operation, maintenance and repair of analog electronic equipment. This certificate provides training in DC systems, AC systems and solid state devices. All instruction emphasizes a hands-on approach utilizing sophisticated test equipment.

**Credit Hours Required:** 9

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

## Program Requirements

- ELT 111 - DC Electrical Systems **Credits:** 3
- ELT 112 - AC Electrical Systems **Credits:** 3
- ELT 126 - Solid State Devices **Credits:** 3

## Program Outcomes

Upon successful completion of the Analog Electronics Certificate program, the learner will be able to:

1. Troubleshoot direct and alternating current circuits. (ELT 111, ELT 112)
2. Troubleshoot solid-state circuits. (ELT 126)

# **Electronics - Digital Electronics Certificate**

The Digital Electronics Certificate trains students for careers in the operation, maintenance and repair of complex electronic equipment. This certificate provides training in digital systems, microprocessors and programmable controllers. All instruction emphasizes a hands-on approach utilizing sophisticated test equipment.

**Credit Hours Required:** 6

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

## **Program Requirements**

- ELT 162 - Microprocessors & Microcontrollers **Credits:** 2
- ELT 183 - Digital Circuits **Credits:** 3

## **Program Outcomes**

Upon successful completion of the Digital Electronics Certificate program, the learner will be able to:

1. Troubleshoot digital, microprocessor and programmable controller-based circuits. (ELT 161, 183)

# **Electronics - Industrial Electronics Certificate**

The Industrial Electronics Certificate trains students for careers in the operation, maintenance and repair of industrial electronic equipment. This certificate provides training in process control instrumentation and motors and motor control. All instruction emphasizes a hands-on approach utilizing sophisticated test equipment.

**Credit Hours Required:** 6

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

## **Program Requirements**

- ELT 171 - Process Control Instrumentation **Credits:** 3
- ELT 272 - Motors and Motor Controls **Credits:** 3

## **Program Outcomes**

Upon successful completion of the Industrial Electronics Certificate program, the learner will be able to:

1. Troubleshoot process control instrumentation and motor control circuits. (ELT 171, ELT 272)

# Electronics Technology Certificate

The Electronics Technology certificate prepares students for a wide variety of careers in Electronics Technology as an electronics technician, communications technician or field service engineer.

**Credit Hours Required:** 21

**Gainful Employment Data:** [View](#)

## Program Requirements

- ELT 111 - DC Electrical Systems **Credits:** 3
- ELT 112 - AC Electrical Systems **Credits:** 3
- ELT 126 - Solid State Devices **Credits:** 3
- ELT 162 - Microprocessors & Microcontrollers **Credits:** 2
- ELT 165 - Programmable Logic Controllers **Credits:** 2
- ELT 183 - Digital Circuits **Credits:** 3
- ELT 221 - Communication Systems and Circuits **Credits:** 3
- ELT 258 - Electronic Troubleshooting **Credits:** 2

## Program Outcomes

Upon successful completion of the Electronics Technology Certificate program, the learner will be able to:

1. Troubleshoot AC/DC circuits. (ELT 111, ELT 112)
2. Troubleshoot digital, microprocessor, and programmable controller-based circuits. (ELT 162, ELT 165, ELT 183)
3. Troubleshoot solid state and communications circuits. (ELT 126, ELT 221)
4. Troubleshoot pre-bugged equipment including symptom recognition, fault isolation and repair. (ELT 258)

# Emergency Medical Technician Certificate

The Emergency Medical Technician certificate ([EMS 132](#)) provides fundamental knowledge about emergency medical procedures and techniques. These include artificial respiration, cardio-pulmonary resuscitation, control of bleeding, splinting, extrication and light rescue, and ten hours of hospital training and observation to give Emergency Medical Technicians improved clinical knowledge of the profession. Successful completion of [EMS 132](#), with a grade of "C" or better, qualifies the student to take the National Registry of EMT Certification examination for EMT.

**Note:** There are special admission requirements to enroll in EMS 132. Click here for additional requirements and the application.

**Credit Hours Required:** 10

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.*

## Program Requirements

- EMS 132 - Emergency Medical Technician **Credits:** 10

## Program Outcomes

Upon successful completion of the Emergency Medical Technician Certificate program, the learner will be able to:

1. Perform one and two person cardiopulmonary resuscitation (CPR) for the adult, child and infant patient according to the latest American Heart Association, Basic Life Support for Healthcare Provider standards. (EMS 132)
2. Manage scene safety including personal protective equipment in the workplace. (EMS 132)
3. Determine priorities of care. (EMS 132)
4. Define the role, scope of practice, legal and ethical responsibilities of an EMT. (EMS 132)
5. Assess, manage, and stabilize patients of all ages suffering airway obstructions, respiratory arrest and cardiac arrest with the use of CPR, automated external defibrillator, ventilatory assistance and oxygen. (EMS 132)
6. Assess, manage, and stabilize patients of all ages with medical emergencies and emergency childbirth. (EMS 132)
7. Assess, manage, and stabilize patients of all ages suffering bleeding, shock, soft tissue injuries, burns, fractures, nervous system injuries, head, chest and abdominal injuries. (EMS 132)
8. Prepare the patient for transport to an appropriate medical facility with a minimum of aggravation to the patient's illness or injury. (EMS 132)
9. Prepare a comprehensive patient care report for each patient assessed in the hospital clinical setting. (EMS 132)

# Enology Certificate

The Enology certificate is designed to prepare individuals for careers in the wine industry with an emphasis on wine production. Classroom instruction, laboratory and winery applications of enological principles and practices will be covered.

**Credit Hours Required:** 23

**Gainful Employment Data:** [View](#)

## Program Requirements

- CHM 130 - Fundamental Chemistry **Credits:** 4
- VEN 121 - Wines of the World **Credits:** 2
- VEN 122 - Sensory Evaluation of Wine **Credits:** 2
- VEN 195E - Winemaking Practicum **Credits:** 2  
*Note: Students must complete VEN 195E in Fall, Spring and Summer for a total of 6 credits.*
- VEN 200 - Science of Winemaking I **Credits:** 3
- VEN 201 - Science of Winemaking II **Credits:** 3
- VEN 202 - Science of Winemaking III **Credits:** 3

## Program Outcomes

Upon successful completion of the Enology Certificate program, the learner will be able to:

1. Perform steps in the winemaking process. (VEN 195E, VEN 200, VEN 201, VEN 202)
2. Evaluate wines. (CHM 130, VEN 121, VEN 122, VEN 195E, VEN 200, VEN 201, VEN 202)
3. Describe legal compliances and business functions in the wine industry. (VEN 121, VEN 195E, VEN 202)

# Equine Care and Management Certificate

The Equine Care and Management certificate prepares students for entrepreneurship, employment, or advancement in a variety of equine fields including business/barn management, training, husbandry, grooming, sales, marketing and nutrition.

**Credit Hours Required:** 30

**Gainful Employment Data:** View

**Note:** Formerly *Equine Practitioner Certificate*

## Program Requirements

- AGE 100 - Introductory Equine Science **Credits:** 4
- AGE 101 - Riding Methods I **Credits:** 2
- AGE 120 - Equine Health and First Aid **Credits:** 2
- AGE 122 - Principles of Equine Nutrition **Credits:** 2
- AGE 125 - Equine Behavior and Psychology **Credits:** 3
- AGE 140 - Equine Hoof Care **Credits:** 3
- AGE 201 - Riding Methods II **Credits:** 2
- AGE 231 - Professional Groom and Handler **Credits:** 3
- AGE 260 - Ground Skills and Training Techniques in Horsemanship **Credits:** 3
- AGS 102 - Agribusiness Management **Credits:** 3
- AGS 215 - Agricultural Mechanics **Credits:** 3

## Program Outcomes

Upon successful completion of the Equine Care and Management Certificate program, the learner will be able to:

1. Design, operate, and implement a business plan to manage an equine facility, business or event. (AGE 100, AGE 230, AGS 102, AGS 215)
2. Identify external parts of a horse and apply that knowledge to everyday functions of the horse. (AGE 100, AGE 120, AGE 122, AGE 125, AGE 140, AGE 231)
3. Explain equine social needs and behavior, and how to take these into consideration in management and training. (AGE 100, AGE 125, AGE 260)
4. Identify and apply overall health and nutrition needs for the newborn to senior equine. (AGE 100, AGE 122, AGE 231)
5. Identify the anatomy of the hoof and explain correct shoeing procedures. (AGE 100, AGE 140)
6. Recognize a variety of horse illnesses, lameness and diseases, and recommend the proper treatment for each. (AGE 100, AGE 120, AGE 122, AGE 140)
7. Identify digestive anatomy and physiology and design a feed program for a variety of equine breeds. (AGE 100, AGE 120, AGE 122, AGE 231)
8. Compare popular training techniques from ground work to under saddle/harness. (AGE 100, AGE 101, AGE 201, AGE 260)
9. Identify and correct behavioral problems in relation to riding and training. (AGE 100, AGE 101, AGE 125, AGE 201, AGE 260)
10. Explain and use basic riding techniques and associated equipment needed for each. (AGE 100, AGE 101, AGE 201)
11. Identify and apply barn management skills, including cleaning, horse care, and supply management. (AGE 100, AGE 230)
12. Identify and apply effective grooming, handling, tools, and products for various horse breeds and shows. (AGE 100, AGE 215, AGE 231)

# Fire Science - Basic Firefighter Certificate

The Basic Firefighter certificate program is designed to prepare students for positions as career and volunteer firefighters at the entry level. Some students may already be employed at the entry level and are seeking to enhance their knowledge and skills.

**Credit Hours Required:** 28

**Gainful Employment Data:** [View](#)

## Program Requirements

- EMS 132 - Emergency Medical Technician **Credits:** 10
- FSC 104 - Hazardous Materials First Responder Operations **Credits:** 3
- FSC 105 - Firefighter I & II Certification Academy **Credits:** 12
- FSC 155 - Basic Wildland Firefighting **Credits:** 3

## Program Outcomes

Upon successful completion of the Fire Science - Basic Firefighter Certificate program, the learner will be able to:

1. Explain the proper uses for various equipment/tools, the care and use of fire equipment ladders, and perform basic ladder raises for multi-person ladders. (FSC 105)
2. Describe and perform standard hose rolls and carries used by the fire service. (FSC 105)
3. Explain the need for proper ventilation. (FSC 105)
4. Explain the method and theory of fire cause determination as it applies to the firefighter to include securing the scene and legal considerations. (FSC 105)
5. Identify and explain the components and value of automatic sprinkler systems. (FSC 105)
6. Perform various drags, lifts, carries, wall breaching, narrow-space manipulation and hoisting techniques directly related to firefighter safety and self-survival. (FSC 105)
7. Identify various hazardous materials and their potential dangers. (FSC 104)
8. Perform CPR for victims of all ages and demographics. (EMS 132)
9. Provide first aid for victims of all ages and demographics. (EMS 132)
10. Describe principles and techniques of emergency medical care as performed by the EMT-Basic in accordance with national and state curriculum. (EMS 132)
11. Define differences in logistical approaches to wildland and wildfire suppression. (FSC 155)

# Fire Science Community Risk Manager Certificate

The Fire Science Community Risk Manager certificate is designed for those interested in training in the area of risk management with a fire prevention emphasis.

**Credit Hours Required:** 22

**Gainful Employment Data:** [View](#)

## Program Requirements

- FSC 104 - Hazardous Materials First Responder Operations **Credits:** 3
- FSC 135 - Fire Prevention **Credits:** 3
- FSC 210 - Advanced Fire Behavior and Combustion **Credits:** 3
- FSC 225 - Legal Aspects of Emergency Services **Credits:** 4
- FSC 234 - Fire Investigation **Credits:** 3
- FSC 235 - Fire Protection Systems **Credits:** 3
- FSC 241 - Building Construction for Fire Protection **Credits:** 3

## Program Outcomes

Upon successful completion of the Fire Science Community Risk Manager Certificate program, the learner will be able to:

1. Identify various hazardous materials and their potential dangers. (FSC104)
2. Explain issues related to fire prevention and the components and steps of inspection and enforcement. (FSC135)3.
3. Define types of laws, explain their basic differences, and their function in society. (FSC225)
4. Identify the main elements determining fire behavior, fuels and fuel properties. Analyze arson, conduct investigations, and present evidence and testimony in court. (FSC234)
5. Describe fire detection systems and applications, and operate and test fire protection and detection systems. (FSC235)
6. Determine factors and principles related to fire resistance, building codes and fire suppression issues. (FSC241)
7. Define and use basic terms and concepts associated with the chemistry and dynamics of fire. (FSC210)

# Fire Science Driver/Operator Certificate

The Fire Science Driver/Operator certificate is designed to prepare the student to become a driver/operator of fire service pumping apparatus and hydraulics as it relates to the fire service.

**Credit Hours Required:** 18

**Gainful Employment Data:** [View](#)

## Program Requirements

- FSC 137 - Fire Protection Hydraulics and Water Supply **Credits:** 3
- FSC 138 - Fire Department Apparatus **Credits:** 3
- FSC 236 - Occupational Safety and Health for Emergency Services **Credits:** 3
- FSC 238 - Strategy and Tactics **Credits:** 3
- FSC 239 - Fire Department Company Officer **Credits:** 3
- FSC 241 - Building Construction for Fire Protection **Credits:** 3

## Program Outcomes

Upon successful completion of the Fire Science Driver/Operator Certificate program, the learner will be able to:

1. Describe principles and characteristics of hydraulics and operate fire hydraulic pumps currently in use in the fire service. Compute nozzle pressures and characterize related hydraulics problems. (FSC 137)
2. Deploy and operate fire apparatus and equipment and explain the principles and characteristics of water pressure. Identify types of pumps used in fire apparatus. (FSC 138)
3. Prescribe safety procedures for personnel operating in the fire ground. (FSC 236)
4. Direct firefighting operations to achieve maximum property conservation. (FSC 238)
5. Lead and manage functions and processes as the emergency scene commander. (FSC 239)
6. Determine factors and principles related to fire resistance, building codes and fire suppression issues. (FSC 241)

# Fire Service Officer/Manager Certificate

The Fire Service Officer/Manager certificate is designed for those interested in fire service leadership/management and in becoming a fire service officer.

**Credit Hours Required:** 22

**Gainful Employment Data:** [View](#)

## Program-Specific Requirements

- FSC 210 - Advanced Fire Behavior and Combustion **Credits:** 3
- FSC 225 - Legal Aspects of Emergency Services **Credits:** 4
- FSC 236 - Occupational Safety and Health for Emergency Services **Credits:** 3
- FSC 238 - Strategy and Tactics **Credits:** 3
- FSC 239 - Fire Department Company Officer **Credits:** 3
- FSC 240 - Principles of Fire and Emergency Service Administration **Credits:** 3
- FSC 241 - Building Construction for Fire Protection **Credits:** 3

## Program Outcomes

Upon successful completion of the Fire Service Officer/Manager Certificate program, the learner will be able to:

1. Identify and analyze the major cause of firefighter deaths in the line of duty related to health, fitness, wellness and vehicle operations. (FSC 225)
2. Prescribe safety procedures for personnel operating in the fire ground. (FSC 236)
3. Define and use basic terms and concepts associated with the chemistry and dynamics of fire. (FSC 210)
4. Direct firefighting operations to achieve maximum property conservation. (FSC 238)
5. Lead functions and processes as the emergency scene commander. (FSC 239)
6. Incorporate and manage cost containment, budgeting, data analysis, personnel evaluation, community planning, and departmental and public organization. (FSC 240)
7. Determine factors and principles related to fire resistance, building codes and fire suppression issues. (FSC 241)

# Fitness Trainer/Instructor Certificate

The Fitness Trainer/ Instructor certificate provides students with a cross-disciplinary foundation in the fields of exercise science, sports nutrition, wellness and first aid as applied to personal training and group fitness programming and instruction. It is an ideal path for students needing ACE exam review preparation, for those planning to pursue a bachelor's degree in a similar area of study, or for current professionals seeking to update and enhance their knowledge and skills.

**Credit Hours Required:** 18

**Gainful Employment Data:** [View](#)

## Program Requirements

- BIO 160 - Introduction to Human Anatomy and Physiology **Credits:** 4  
*Note: BIO 160 or higher level Anatomy & Physiology course.*
- PHE 152 - Personal Health and Wellness **Credits:** 3
- PHE 153 - First Aid/CPR/AED and Safety **Credits:** 2
- PHE 157 - Nutrition for Health, Fitness and Sport **Credits:** 3
- PHE 251 - Integrated and Applied Exercise Sciences **Credits:** 3
- PHE 252 - ACE Personal Trainer Preparation **Credits:** 3

## Program Outcomes

Upon successful completion of the Fitness Trainer/Instructor Certificate program, the learner will be able to:

1. Use FITT and strength training principles to develop and evaluate effectiveness of programs for individuals and/or groups that will enhance the five components of fitness. (BIO 160 or BIO 201, PHE 152, PHE 157, PHE 251, PHE 252)
2. Explain the acute and chronic effects and adaptations of exercise on the cardiovascular and musculoskeletal system. (BIO 160 or BIO 201, PHE 251, PHE 252)
3. Utilizing the scope of practice of a fitness trainer, describe the relationship between diet and exercise as it relates to weight management, obesity, and body composition. (PHE 152, PHE 157, PHE 251, PHE 252)
4. Analyze and prioritize first aid situations and perform first aid. (PHE 153)

# Graphic Design Technician Certificate

Completion of this program of study prepares students for entry-level employment in printing and design firms.

Students will develop technical competencies in print, digital imaging, and website design using Adobe Creative Suite. Application of basic design principles.

**Credit Hours Required:** 29

**Gainful Employment Data:** [View](#)

## Program Requirements

- ART 110 - Drawing I **Credits:** 3
- ART 112 - Two-Dimensional Design **Credits:** 3
- ART 130 - Web Site Design I **Credits:** 3
- OR WEB 130 - Web Site Design I **Credits:** 3
- ART 131 - Graphic Design I **Credits:** 4
- ART 132 - Graphic Design II **Credits:** 4
- ART 137 - Adobe Photoshop I **Credits:** 3
- ART 154 - Digital Photography I **Credits:** 3
- ART 231 - Graphic Design Illustration **Credits:** 4
- ART 236 - Digital Pre-Press **Credits:** 2

## Program Outcomes

Upon successful completion of the Graphic Design Technician Certificate program, the learner will be able to:

1. Employ Adobe Creative Suite Software. (ART 130, ART 131, ART 132, ART 137, ART 154, ART 231, ART 236)
2. Work independently or as part of a team to successfully complete graphic design projects. (ART 130, ART 131, ART 132, ART 137, ART 231, ART 236)
3. Develop creative solutions to visual problems. (ART 110, ART 112, ART 130, ART 131, ART 132, ART 137, ART 154, ART 231, ART 236)
4. Use typography in design solutions. (ART 130, ART 131, ART 132, ART 231)
5. Identify, analyze, synthesize and communicate design principles. (ART 110, ART 112, ART 130, ART 131, ART 132, ART 137, ART 154, ART 231, ART 236)
6. Articulate traditional and non-traditional art examples and how those examples affect popular visual literacy. (ART 110, ART 112, ART 130, ART 131, ART 132, ART 137, ART 231)

# Gunsmithing - Advanced Certificate

The Advanced Gunsmithing certificate prepares students with highly specialized training in their choice in the areas of CNC machining, competition firearms, and guild firearms production.

**Credit Hours Required:** 20-21

**Gainful Employment Data:** [View](#)

**Note:** Special admission to this program is required. Students should contact an academic advisor or the program director for detailed information.

## Program Requirements

Select two of the three following blocks:

### Block 1 - Guild Firearms

- GST 270 - Guild Firearms **Credits:** 10

### Block 2 - Competition Firearms

- GST 280 - Competition Firearms **Credits:** 10

### Block 3 - CNC Machining

- CNC 101 - CNC Machine Operator **Credits:** 2
- CNC 102 - CNC Machine Setup **Credits:** 2
- CNC 201 - Computer Aided Programming for CNC Machining **Credits:** 3
- CNC 202 - 3-D Programming and Rapid Prototyping for CNC **Credits:** 4

## Program Outcomes

Upon successful completion of the Gunsmithing - Advanced Certificate program, the learner will be able to:

1. Safely operate hand and machine tools necessary for gun building. (GST 270, GST 280)
2. Build traditional sporting firearms at a guild quality level. (GST 270)
3. Build competition firearms that perform at or above accepted levels. (GST 280)
4. Program and operate CNC machinery. (CNC 101, CNC 102, CNC 201, CNC 202)
5. Operate CAM programs relevant to the firearms industry. (CNC 201, GST 280)

# Gunsmithing Certificate

The Gunsmithing certificate prepares the student for direct employment as a gunsmith in an established shop.

**Credits Hours Required:** 48

**Gainful Employment Data:** [View](#)

**Note:** There is a special admission process for this program. Prospective students should contact an academic advisor for detailed information.

## Program Requirements

- GST 100 - Apprentice Gunsmithing **Credits:** 10
- GST 150 - Journeyman Gunsmithing **Credits:** 10
- GST 200 - Professional Gunsmithing **Credits:** 10
- GST 250 - Master Gunsmithing **Credits:** 10

## Program Electives

Select one course from the following each semester for a total minimum of 8 credits:

- GST 191 - Basic Engraving **Credits:** 3
- GST 192 - Advanced Engraving **Credits:** 3
- GST 195 - Gunsmithing Practicum **Credits:** 2  
**Note:** 4 credit hours in Gunsmithing Practicum may be applied to Gunsmithing Electives.
- GST 291 - Professional Firearms Engraving **Credits:** 3
- GST 295 - Advanced Gunsmithing Practicum **Credits:** 2  
**Note:** 4 credit hours in Advanced Gunsmithing Practicum may be applied to Gunsmithing Electives.
- CNC 101 - CNC Machine Operator **Credits:** 2
- CNC 102 - CNC Machine Setup **Credits:** 2
- WLD 113 - Basic Welding II **Credits:** 2

## Program Outcomes

Upon successful completion of the Gunsmithing Certificate program, the learner will be able to:

1. Safely operate hand and machine tools common to the gunsmithing trade.
2. Use measuring tools such as micrometers, indicators, verniers and various gauges.
3. Use a computer to develop ballistic data and to document research assignments.
4. Completely disassemble firearms for metal refinishing and re-assembly.
5. Identify different rifle operating systems.
6. Identify different shotgun operating systems including maintenance, repair and customization.
7. Lay out, duplicate, inlet, fit, glass bed, install accessories, apply finish and checker the Classic American rifle stock.

# Hotel and Restaurant Management Certificate

The Hotel and Restaurant Management Certificate is designed to prepare graduates for management careers in restaurants and hotels. The curriculum provides a well-rounded mix of business and life skills in demand in the field of hospitality.

**Credit Hours Required:** 30

**Gainful Employment Data:** View

**Note:** Formerly Hospitality Certificate

## Program Requirements

- CSA 110 - Introduction to Computer Information Systems **Credits:** 3
- HOS 100 - Introduction to the Hospitality Industry **Credits:** 3
- HOS 110 - Food Service Systems Management **Credits:** 3
- HOS 115 - Hospitality Front Office Procedures **Credits:** 3
- HOS 150 - Hospitality Property Management **Credits:** 3
- HOS 195 - Hospitality Practicum **Credits:** 3
- HOS 195 - Hospitality Practicum **Credits:** 3
- **Note:** HOS 195 must be completed two times totaling 6 credit hours.
- HOS 200 - Hospitality: Financial Management **Credits:** 3
- HOS 243 - Foundations in Kitchen Operations **Credits:** 3
- HOS 270 - Hospitality Information Technology **Credits:** 3

## Program Outcomes

Upon successful completion of the Hotel and Restaurant Management Certificate program, the learner will be able to:

1. Apply theories and techniques of baking and cooking in a commercial kitchen and bakery. (HOS 110, HOS 195, HOS 243)
2. Apply concepts of customer service to front desk operations for lodging venues. (HOS 100, HOS 115, HOS 195, HOS 270, CSA 110)
3. Analyze the food, beverage and lodging cost-control cycle and accounting practices, and implement controls to maintain costs and ensure profitability. (HOS 110, HOS 195, HOS 200, HOS 243)
4. Implement marketing plans for food service, lodging and tourism venues. (HOS 110, HOS 195, HOS 270, CSA 110)
5. Apply executive management leadership techniques within the hospitality industry. (HOS 150, HOS 195, HOS 243)
6. Implement health, building, and fire codes to maintain a safe hospitality environment. (HOS 150, HOS 195, HOS 243)

# Industrial Machine Mechanic (IMM) Certificate

The Industrial Machine Mechanic Certificate is designed to prepare the student for an entry-level career in plant machinery installation, maintenance, and fabrication.

**Credit Hours Required:** 28

**Gainful Employment Data:** [View](#)

## Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- OR CSA 126 - Microsoft Office for Windows **Credits:** 3
- IPT 110 - Industrial Shop Practices **Credits:** 3
- IPT 120 - Industrial Pump Maintenance and Repair **Credits:** 3
- IPT 130 - Industrial Valve Maintenance and Repair **Credits:** 3
- IPT 140 - Bulk Materials Handling **Credits:** 3
- IPT 160 - Machinery Maintenance and Troubleshooting **Credits:** 3
- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2
- WLD 112 - Basic Welding I **Credits:** 2
- WLD 113 - Basic Welding II **Credits:** 2
- WLD 250 - Welded Metal Fabrication **Credits:** 4

## Program Outcomes

Upon successful completion of the Industrial Machine Mechanic Certificate program, the learner will be able to:

1. Troubleshoot, replace, and repair hydraulic and pneumatic system components. (IPT 110, IPT 120, IPT 160, MET 160)
2. Fabricate and repair industrial machinery components. (IPT 160, WLD 112, WLD 113, WLD 250)
3. Utilize machine shop equipment. (AGS 101 or CSA 126, IPT 160, MET 160)
4. Troubleshoot and repair conveyance systems. (IPT 160)
5. Troubleshoot and repair bulk material handlers. (IPT 140, IPT 160)
6. Repair and replace valves. (IPT 130)

# IMM - Hydro Utility Tech Certificate

The Hydro Utility Tech Certificate prepares individuals to function as effective technicians in both private and public areas such as water processing and control, fluid waste management, water treatment maintenance, and irrigation maintenance systems.

**Credit Hours Required:** 16-18

**Gainful Employment Data:** [View](#)

## Program Requirements

- IPT 110 - Industrial Shop Practices **Credits:** 3
- IPT 120 - Industrial Pump Maintenance and Repair **Credits:** 3
- IPT 130 - Industrial Valve Maintenance and Repair **Credits:** 3
- IPT 160 - Machinery Maintenance and Troubleshooting **Credits:** 3
- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2
- WLD 113 - Basic Welding II **Credits:** 2
- **OR** WLD 140 - Arc I **Credits:** 4

## Program Outcomes

Upon successful completion of the Hydro Utility Tech Certificate program, the learner will be able to:

1. Troubleshoot, replace, and repair hydraulic and pneumatic system components. (IPT 110, IPT 120, IPT 160, MET 160, WLD 113 or WLD 140)
2. Repair and replace valves. (IPT 120, IPT 130, IPT 160, WLD113 or WLD 140)

# IMM - Machine Fabrication Tech Certificate

The Machine Fabrication Tech Certificate provides the skills to perform fabrication work including gas welding and cutting, SMAW welding (Arc), GMAW welding (wire), welding fabrication, and machining work in the fabrication and repair of industrial machinery.

**Credit Hours Required:** 18-22

**Gainful Employment Data:** [View](#)

## Program Requirements

- IPT 110 - Industrial Shop Practices **Credits:** 3
- IPT 160 - Machinery Maintenance and Troubleshooting **Credits:** 3
- IPT 261 - Machine Shop **Credits:** 3
- MET 116 - Rigging **Credits:** 1
- WLD 112 - Basic Welding I **Credits:** 2
- **OR** WLD 130 - Oxyacetylene **Credits:** 4
- WLD 113 - Basic Welding II **Credits:** 2
- **OR** WLD 140 - Arc I **Credits:** 4
- WLD 250 - Welded Metal Fabrication **Credits:** 4

## Program Outcomes

Upon successful completion of the Machine Fabrication Tech Certificate program, the learner will be able to:

1. Fabricate and repair industrial machinery components. (IPT 160, WLD 112 or WLD 130, WLD 113 or WLD 140, WLD 250)
2. Safely utilize machine shop equipment. (IPT 110, IPT 160, IPT 261, MET 116)
3. Troubleshoot and repair conveyance systems. (IPT 260)

# IMM - Mechanic Assistant Certificate

The Mechanic Assistant Certificate is designed to provide the basic mechanical skills needed for employment as a mechanic assistant within the mechanical trades. Includes use of hand tools, power tools and shop equipment, basic mechanical principles, basic arc and gas welding, computer basics, rigging, and basic hydraulics and pneumatics.

**Credit Hours Required:** 16-20

**Gainful Employment Data:** [View](#)

## Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- OR CSA 126 - Microsoft Office for Windows **Credits:** 3
- IPT 110 - Industrial Shop Practices **Credits:** 3
- IPT 160 - Machinery Maintenance and Troubleshooting **Credits:** 3
- MET 116 - Rigging **Credits:** 1
- MET 160 - Basic Machine Hydraulics and Pneumatics **Credits:** 2
- WLD 112 - Basic Welding I **Credits:** 2
- OR WLD 130 - Oxyacetylene **Credits:** 4
- WLD 113 - Basic Welding II **Credits:** 2
- OR WLD 140 - Arc I **Credits:** 4

## Program Outcomes

Upon successful completion of the Mechanic Assistant Certificate program, the learner will be able to:

1. Troubleshoot, replace, and repair hydraulic and pneumatic system components. (IPT 110, IPT 160, MET 160)
2. Fabricate and repair industrial machinery components. (IPT 160, WLD 112 or WLD130, WLD 113 or WLD140)
3. Safely utilize machine shop equipment. (AGS 101 OR CSA 126, IPT 110, MET 116, MET 160)

# Integrated Systems Engineering Technician Certificate

The Integrated Systems Engineering Technician certificate prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. Includes machine operations, production line operations, robotics, system integration, computer-aided drafting (CAD), and computer-aided manufacturing (CAM).

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

## Program Requirements

- CNC 101 - CNC Machine Operator **Credits:** 2
- CNC 102 - CNC Machine Setup **Credits:** 2
- CNC 201 - Computer Aided Programming for CNC Machining **Credits:** 3
- CNC 202 - 3-D Programming and Rapid Prototyping for CNC **Credits:** 4
- ELT 130 - Introduction to Robotics **Credits:** 3
- ELT 140 - Robot Vision **Credits:** 3
- EGR 180 - CAD (Computer Aided-Drawing) with SolidWorks **Credits:** 3
- MET 100 - Introduction to Manufacturing Technology **Credits:** 4

## Program Outcomes

Upon successful completion of the Integrated Systems Engineering Technician Certificate program, the learner will be able to:

1. Program and operate a CNC mill and lathe. (CNC 101)
2. Set tools for CNC machining of a given product. (CNC 102)
3. Design a product for CNC machining. (CNC 201, CNC 202)
4. Reverse engineer a product for 3D replication. (CNC 202)
5. Utilize a computer language to program a robot in a robotic-based work cell capable of performing repetitive tasks. (ELT 130)
6. Utilize robot vision for error proofing and single and multi-view pick and place operations. (ELT 140)
7. Create 2D sketches in SolidWorks, demonstrate the different extrusion options, and utilize geometric relations to display and modify parametric relations. (EGR 180)
8. Create drawing layouts from solid models and demonstrate the assembly modeling methodology to place parts using SolidWorks SmartMates. (EGR 180)
9. Identify different types of manufacturing processes from engineering to product shipment. (MET 100)
10. Interpret documentation of products and processes to accomplish manufacturing tasks with application of Statistical Process Control, ISO 9000 and Total Quality Control. (MET 100)

# Justice Studies Certificate

The Justice Studies certificate program is designed for students interested in a broad range of criminal justice careers, without a law enforcement focus. The program includes the study of crime and delinquency and the theories, policies and practices of the criminal justice system.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

**Note:** This program can be completed entirely online.

## Program Requirements

- AJS 101 - Introduction to Administration of Justice **Credits:** 3
- AJS 123 - Ethics and Criminal Justice **Credits:** 3
- AJS 192 - Serial Killers and Mass Murderers **Credits:** 3
- AJS 200 - Current Issues in Criminal Justice **Credits:** 3
- AJS 212 - Juvenile Justice Procedures **Credits:** 3
- AJS 225 - Criminology **Credits:** 3
- AJS 226 - Victimology and Crises Intervention **Credits:** 3
- AJS 278 - Neuroscience and the Law **Credits:** 3

## Program Outcomes

Upon successful completion of the Justice Studies Certificate program, the learner will be able to:

1. Explain the historical development of American criminal law from its English common law roots to the present. (AJS 101)
2. Analyze criminal conduct in the context of historical, social, political and legal developments. (AJS 101)
3. Analyze the intersection of law, morality, and ethics in modern society. (AJS 123)
4. Analyze current issues and trends in crime rates, criminal behavior, and social trends as they impact the criminal justice process. (AJS 200)
5. Outline the modern philosophies, organization and treatment/intervention goals of the juvenile justice system. (AJS 212)
6. Identify and summarize the various theories of the causes of criminal behavior. (AJS 225)
7. Describe the economic and psychological impact of crime on society. (AJS 225)
8. Identify and explain victimology and the crisis interventions afforded to victims of crime and their families. (AJS 226)
9. Discuss new discoveries in neuroscience and how our increased understanding of the brain is having direct impact on the criminal justice system. (AJS 278)
10. Explain theories of causation of serial and mass murderers. (AJS 192)

# Law Enforcement and Corrections Certificate <sup>∞</sup>

The Law Enforcement and Corrections certificate is designed for those interested in training in the law enforcement/corrections field. Emphasis is on the study of crime and delinquency within the criminal justice system, particularly as to the response of law enforcement, corrections and the courts to violations of the law.

The Intensive Police Academy (AIS 291) is accredited by the Arizona Peace Officers Standards and Training Board (AZ POST) in providing Basic Peace Officer training to individuals meeting the requirements of the training board and appointing police agencies. The curriculum includes the study of criminal investigations, police community relations, traffic accident investigation, introduction to administration of justice, law, legal principles, patrol procedures, vehicle operations, report and technical writing, physical conditioning, defense tactics, impact weapons, firearm proficiency and safety, first aid, fundamentals of hazardous materials, stress management and use of force. Students must be screened and appointed by an Arizona Law Enforcement Agency. Upon successful completion of AJS 291, students are eligible to be hired as police officers in the state.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

**Note:** Students enrolling in AJS 291 must be screened and appointed by an Arizona Law Enforcement Agency.

**∞Note:** Option 1 can be completed entirely online.

## Program Requirements

### Select Option 1 or 2:

#### Option 1

- AJS 101 - Introduction to Administration of Justice **Credits:** 3
- AJS 103 - Public Safety Report Writing **Credits:** 3
- AJS 109 - Substantive Criminal Law **Credits:** 3
- AJS 123 - Ethics and Criminal Justice **Credits:** 3
- AJS 170 - Forensic Science **Credits:** 3
- AJS 230 - The Police Function **Credits:** 3
- AJS 240 - The Correction Function **Credits:** 3
- AJS 260 - Procedural Criminal Law **Credits:** 3

#### Option 2

- AJS 291 - Intensive Police Certification **Credits:** 24

## Program Outcomes

Upon successful completion of the Law Enforcement and Corrections Certificate program, the learner will be able to:

1. Explain the historical development of American criminal law from its English common law roots to the present. (AJS 101, AJS 291)
2. Analyze criminal conduct in the context of historical, social, political and legal developments. (AJS 101, AJS 109, AJS 291)
3. Identify the organization and jurisdiction of local, state and federal law enforcement, courts and correctional systems. (AJS 101, AJS 230, AJS 240, AJS 291)
4. Describe the relationships between the three components of the criminal justice system. (AJS 109, AJS 230, AJS 240, AJS 291)
5. Summarize the philosophy of legal sanctions and corrections and the historical development of theories of punishment and rehabilitation. (AJS 109, AJS 240, AJS 291)
6. Analyze the intersection of law, morality and ethics in our modern society. (AJS 123, AJS 291)
7. Summarize the modern scientific tools used in criminal investigation. (AJS 170, AJS 291)
8. Analyze the role of the US Supreme Court in defining the Constitutional protections and procedural due process safeguards in the criminal justice system. (AJS 260, AJS 291)
9. Describe the economic and psychological impact of crime on society. (AJS 240, AJS 291)
10. Write a concise public services report using basic word processing skills. (AJS 103, AJS 291)
11. Apply all types, purposes and techniques of patrol procedures (AJS 230, AJS 291)

# Legal Office Clerk Certificate

The Legal Office Clerk certificate is designed to prepare students for entry-level clerical positions in law offices.

**Credit Hours Required:** 18

**Gainful Employment Data:** [View](#)

**Note:** *The student is expected to have mastered basic keyboarding skills before beginning this program.*

**∞Note:** *This program can be completed entirely online.*

## Program Requirements

- BSA 225 - Administrative Professional: Office Management **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- LAW 100 - Introduction to Paralegal Studies **Credits:** 3
- LAW 102 - Legal Computer Applications **Credits:** 3
- LAW 103 - Ethics and the Law **Credits:** 3
- LAW 107 - Law Office Management **Credits:** 3

## Program Outcomes

Upon successful completion of the Legal Office Clerk Certificate program, the learner will be able to:

1. Use computer applications including word processing, database, spreadsheet, presentation, and internet skills for the law office setting. (CSA 126, LAW 102, LAW 107)
2. Define legal terms and describe legal principles in the areas of tort, contract and criminal law. (LAW 100, LAW 107)
3. Describe basic court systems and court procedures. (LAW 100, LAW 107)
4. Create, format, revise, and print letters, memos, tables, and legal documents. (BSA 225, CSA 126, LAW 102, LAW 107)
5. Perform standard office practices including office communications, telephone skills, mailing methods, time management and prioritizing. (BSA 225, LAW 107)
6. Apply office-related professional etiquette skills. (BSA 225, LAW 107)
7. Use multi-tasking and initiative techniques. (BSA 225, LAW 102, LAW 107)
8. Describe legal office procedures. (LAW 100, LAW 107)
9. Complete law office billing. (LAW 102, LAW 107)
10. Use filing systems as they pertain to the legal office. (BSA 225, LAW 102, LAW 107)
11. File legal documents with the courts using docketing procedures. (LAW 107)
12. Identify confidentiality requirements as set forth in the Ethics Rules. (LAW 103, LAW 107)
13. Use the Harvard Law Review Bluebook uniform system of legal citations. (LAW 107)

# Magnetic Resonance Certificate

The Magnetic Resonance (MR) Certificate program is comprised of two courses designed as facilitated and self-directed learning for radiologic professionals who are established and presently employed in the field. The program, which can be completed in one semester, offers both didactic coursework and clinical skills experiences necessary to prepare the student to challenge the ARRT Advanced Registry in Magnetic Resonance certificate exam.

**Credit Hours Required:** 6

This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.

## Program Requirements

- ICE 200 - Magnetic Resonance Certification **Credits:** 3
- ICE 210 - Magnetic Resonance Clinical Education I **Credits:** 3

## Program Outcomes

Upon successful completion of the Magnetic Resonance Certificate program, the learner will be able to:

1. Describe how the MR signal is produced and detected and how the image is acquired.
2. Define and describe magnetism and magnetic properties.
3. Identify the major hardware components in MR imaging.
4. Explain the functionality of the radio-frequency, gradients systems and role of coils in image acquisition.
5. Explain intrinsic and extrinsic parameters that affect image quality.
6. Discuss proper screening, patient preparation, use, and adverse effects of MR contrast agents.
7. List parameters related to tissue characteristics that affect image quality and apply proper pulse sequences in MR imaging.
8. Describe how imaging parameters determine contrast and resolution on MR images.
9. Define the tools used and the post-processing techniques needed for image enhancement.
10. Perform MR exams as outlined in the competency requirements for Post-Primary Certification of the American Registry of Radiologic Technologists (ARRT) in Magnetic Resonance (MR).
11. Identify specific organs or structures on a cross-sectional acquired or reformatted MR image.
12. Explain the appearance of normal tissue and pathologic processes on MR images.
13. Review MR images for quality, accuracy and completeness.

# Management Certificate <sup>∞</sup>

The Management Certificate provides management training to prepare students to apply competencies needed for successful performance in management occupations. The program is designed for those seeking to update or develop essential management skills for the workplace and is available in two concentrations: Organizational Management and Retail Management (national endorsement by the WAFC).

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

**∞Note:** *This program can be completed entirely online.*

## Program Requirements

- MGT 140 - Organizational Behavior **Credits:** 3
- MGT 220 - Principles of Management **Credits:** 3
- MGT 223 - Human Resource Management **Credits:** 3
- MGT 230 - Principles of Marketing **Credits:** 3
- MGT 233 - Business Communication **Credits:** 3

Select one Management Concentration- A or B- and complete the requirements

### A. Organizational Management Concentration

- MGT 120 - Supervision Techniques **Credits:** 3
- MGT 132 - Ethics in Business **Credits:** 3
- MGT 229 - Strategic Management **Credits:** 3

**Note:** *It is recommended that students take MGT 229 in the final semester of their program.*

### B. Retail Management Concentration

- BSA 130 - Business Financial Applications **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- MGT 229 - Strategic Management **Credits:** 3
- OR BSA 296 - Internship: Business Administration **Credits:** 3

**Note:** *It is recommended that students take MGT 229 or BSA 296 in the final semester of their program.*

## Program Outcomes

Upon successful completion of the Management Certificate program, the learner will be able to:

1. Apply written, oral and interpersonal skills in business settings. (BSA130, CSA126, MGT140, MGT229, MGT233)
2. Use the management principles of planning, organizing, leading and controlling to solve common management issues. (MGT120, MGT132, MGT140, MGT220, MGT223, MGT229, MGT230, MGT233)
3. Identify ethical issues and apply the values of professional responsibility. (BSA296, MGT120, MGT132, MGT220)

# Medical Assistant Certificate

The Medical Assistant Certificate program prepares students for employment in health care offices including primary care and specialty physicians' offices, ambulatory care, and urgent care facilities.

**Credit Hours Required:** 36-44

**Gainful Employment Data:** [View](#)

## Program Requirements

- AHS 100 - Fundamentals of Health Care **Credits:** 3
  - AHS 105 - Phlebotomy **Credits:** 2
  - AHS 120 - Foundations of Medical Assisting I **Credits:** 3
  - AHS 121 - Foundations of Medical Assisting II **Credits:** 4
  - AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
  - AHS 140 - Pharmacology for Allied Health **Credits:** 2
  - AHS 295 - AHS Practicum: Medical Assistant **Credits:** 3
- Note:** Students must enroll in AHS 295 within 3 semesters of completing AHS 121, as well as complete all Medical Assistant requirements and receive program director permission, prior to enrollment.
- CSA 126 - Microsoft Office for Windows **Credits:** 3
  - HIM 173 - Legal and Ethical Aspects of Health Information Management **Credits:** 2
  - HIM 240 - Disease Process **Credits:** 4
  - MAT 100 - Technical Mathematics **Credits:** 3 \*Recommended  
OR Choose from Numeracy (Quantitative Literacy)  
OR Satisfactory score on skills assessment

AND choose one Biology option below:

### Option 1

- BIO 160 - Introduction to Human Anatomy and Physiology **Credits:** 4

### Option 2

**Note:** Students planning to pursue a Medical Assistant AAS degree should complete this option.

- BIO 181 or BIO 156 **Credits:** 4
- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4

## Program Outcomes

Upon successful completion of the Medical Assistant Certificate program, the learner will be able to:

1. Manage medical records upholding security and privacy standards as outlined in HIPAA regulations. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 295, HIM 173)
2. Use computer programs commonly found in health care settings. (AHS 105, AHS 120, AHS 121, AHS 295, CSA 126)
3. Assist the health care provider in delivering care to clients with multiple health care needs. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 130, AHS 140, AHS 295, BIO 160, BIO 201, BIO 202, HIM 240)
4. Document how diversity and culture affect delivery of health care. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 295)
5. Obtain specimens for diagnostic evaluation and testing. (AHS 105, AHS 121, AHS 295)
6. Describe the structural organization of the body. (AHS 100, AHS 105, AHS 121, BIO 160, BIO 201, BIO 202, HIM 240)
7. Calculate medical dosages. (AHS 121, AHS 295, MAT 100)

8. List the indications for use, dosage forms, usual dosage, side effects, interactions with other drugs, storage requirements, generic and trade names and mechanism of action for common used medications. (AHS 121, AHS 140, AHS 295)
9. For all major body systems, describe common diseases and conditions, methods of diagnosis, short and long term effects of disease processes, treatment and therapy and restoration strategies. (AHS 105, AHS 121, AHS 130, AHS 295, HIM 240)
10. Distinguish if it is appropriate to release patient records in accordance with policies and procedures for access and disclosure of personal health information. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 295, HIM 173)
11. Use effective communication skills with health care professionals and patients. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 295)

# Medical Office Assistant Certificate

The Medical Office Assistant (MOA) program prepares students to perform administrative skills in a physician's office and qualifies students to sit for the Nationally Certified Medical Office Assistant (NCMOA) exam. The MOA program allows students to complete a certificate and seek employment.

**Credit Hours Required:** 23-31

**Gainful Employment Data:** View

This certificate is not currently eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.

## Program Requirements

- AHS 100 - Fundamentals of Health Care **Credits:** 3
- AHS 105 - Phlebotomy **Credits:** 2
- AHS 120 - Foundations of Medical Assisting I **Credits:** 3
- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- HIM 173 - Legal and Ethical Aspects of Health Information Management **Credits:** 2
- MAT 100 - Technical Mathematics **Credits:** 3 \*Recommended  
OR Choose from Numeracy (Quantitative Literacy)  
OR Satisfactory score on skills assessment

AND choose one Biology option below:

### Option 1

- BIO 160 - Introduction to Human Anatomy and Physiology **Credits:** 4

### Option 2

*Note: Students planning to pursue a Medical Assistant AAS degree should complete this option.*

- BIO 181 or BIO 156 **Credits:** 4
- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4

## Program Outcomes

Upon successful completion of the Medical Office Assistant Certificate program, the learner will be able to:

1. Manage medical records upholding security and privacy standards as outlined in HIPAA regulations. (AHS 100, AHS 105, AHS 120, HIM 173)
2. Use computer programs commonly found in health care settings. (AHS 120, CSA 126)
3. Assist the health care provider in delivering care to clients with multiple health care needs. (AHS 100, AHS 105, AHS 120, AHS 130, BIO 160, BIO 156/181, BIO 201, BIO 202)
4. Document how diversity and culture affect delivery of health care. (AHS 100, AHS 120)
5. Describe the structural organization of the body. (AHS 100, AHS 105, BIO 160, BIO 156/181, BIO 201, BIO 202)
6. Calculate medical dosages. (MAT 100)
7. For all major body systems, describe common diseases and conditions, methods of diagnosis, short and long term effects of disease processes, treatment and therapy and restoration strategies. (AHS 105, AHS 130)
8. Distinguish if it is appropriate to release patient records in accordance with policies and procedures for access and disclosure of personal health information. (AHS 100, AHS 105, AHS 120, HIM 173)
9. Use effective communication skills with health care professionals and patients. (AHS 100, AHS 105, AHS 120)

# Medical Records Technician Certificate

The Medical Records Technician certificate prepares students for employment in a physician's office, acute care setting and/or long-term care setting.

**Credit Hours Required:** 16

**Gainful Employment Data:** [View](#)

## Program Requirements

- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- HIM 110 - Introduction to Health Information Management **Credits:** 3
- HIM 173 - Legal and Ethical Aspects of Health Information Management **Credits:** 2

Complete Option 1 or 2:

### Option 1

- BIO 160 - Introduction to Human Anatomy and Physiology **Credits:** 4

### Option 2

- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4

## Program Outcomes

Upon successful completion of the Medical Records Technician Certificate program, the learner will be able to:

1. Describe the Health Information Management (HIM) process including legal and ethical implications. (HIM 110, HIM 173)
2. Define elements in the medical word building system. (AHS 130, BIO 160, BIO 201, BIO 202)
3. Correctly spell and pronounce medical terms. (AHS 130, BIO 160, BIO 201, BIO 202)
4. Apply basic computer skills. (CSA 126)
5. Identify and describe the structure and function of major organs and body systems. (AHS 130, BIO 160, BIO 201, BIO 202)
6. Describe the strategies involved in decision making during a job search. (BSA 102)

# Nursing Assistant Certificate

The Nursing Assistant Certificate program prepares students to work as nursing assistants and prepares them to take the state competency exams leading to certification.

**Credit Hours Required:** 5

**Note:** There are special admission requirements for the Nursing Assistant Program, along with the following documentation: Skin test or chest x-ray negative for TB, or equivalent within 12 months; current DPS fingerprint clearance card; and CPR for the Healthcare Provider. Must be at least 16 years old. Call 928.771.6122 for details.

This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.

## Program Requirements

- AHS 114 - Nursing Assistant **Credits:** 5

## Program Outcomes

Upon successful completion of the Nursing Assistant Certificate program, the learner will be able to:

1. Apply basic nursing assistant skills safely. (AHS 114)
2. Use restorative care skills and emergency procedures safely. (AHS 114)
3. Utilize infection control principles and procedures. (AHS 114)
4. Identify and report changes in the client's condition. (AHS 114)
5. Describe and protect client rights. (AHS 114)
6. Assist and promote client independence. (AHS 114)
7. Apply the legal and ethical aspects of the nursing assistant role. (AHS 114)
8. Employ effective written and verbal communication skills. (AHS 114)
9. Adapt to individual client behaviors and needs. (AHS 114)
10. Adapt to the unique needs of the client with cognitive impairment. (AHS 114)
11. Describe the role of the nursing assistant as a member of the health care team. (AHS 114)
12. Explain basic body structure and function. (AHS 114)
13. Identify the signs and symptoms of common diseases. (AHS 114)

# Paralegal Studies Certificate <sup>∞</sup>

The Paralegal Studies certificate program is designed to prepare students for positions as paralegals in the legal and business fields. Paralegals work under the supervision of an attorney and their work includes preparing legal documents, researching and compiling information, and communicating with clients. Excellent written and oral skills, as well as computer literacy skills, are essential to the paralegal.

**Credit Hours Required:** 30

**Gainful Employment Data:** [View](#)

**∞Note:** This program can be completed entirely online.

## Program Requirements

- LAW 100 - Introduction to Paralegal Studies **Credits:** 3
- LAW 102 - Legal Computer Applications **Credits:** 3
- LAW 103 - Ethics and the Law **Credits:** 3
- LAW 205 - Contracts **Credits:** 3
- LAW 217 - Legal Research & Writing I **Credits:** 3
- LAW 218 - Legal Research and Writing II **Credits:** 3
- LAW 220 - Civil Tort Litigation I **Credits:** 3
- LAW 221 - Civil Tort Litigation II **Credits:** 3

Select and complete 6 credits from the following courses:

- AJS 109 - Substantive Criminal Law **Credits:** 3
- AJS 260 - Procedural Criminal Law **Credits:** 3
- AJS 278 - Neuroscience and the Law **Credits:** 3
- AJS 290 - Constitutional Law: Civil Liberties and Civil Rights **Credits:** 3
- LAW 104 - Wills, Trusts and Probate **Credits:** 3
- LAW 107 - Law Office Management **Credits:** 3
- LAW 202 - Real Estate Law **Credits:** 3
- LAW 203 - Family Law **Credits:** 3
- LAW 204 - Business Organizations **Credits:** 3
- LAW 296 - Internship: Paralegal Studies **Credits:** 3
- LAW 298 - Special Legal Topics **Credits:** 3

## Program Outcomes

Upon successful completion of the Paralegal Studies - Post Degree Certificate program, the learner will be able to:

1. Interview witnesses and interact with clients, conduct investigative work, manage cases, conduct legal research, draft legal pleadings, prepare legal documents and apply legal procedures in areas of real estate, corporate law, probate, mediation, litigation, family law, administrative law, bankruptcy law and criminal law. (LAW100, LAW205, LAW217, LAW218, LAW220, LAW221)
2. Apply written, oral and interpersonal skills in the legal and business settings. (LAW100, LAW217, LAW218, LAW220, LAW221)
3. Identify and evaluate technology needs and apply and adapt required skills to the rapidly changing legal and business community. (LAW102, LAW215)
4. Proficiently use word processing software and identify and adapt to different types of computer applications. (LAW102)
5. Identify ethical issues and apply the values of professional responsibility. (LAW100, LAW103)

# Paramedicine Certificate

The Paramedicine certificate program prepares students for direct entry as paramedics in emergency care, stabilization, and immobilization of victims of illness and injury: recognizing and documenting signs and symptoms of illness and injury, intervening, and evaluating the intervention; performing assessment of basic electrocardiograph rhythm identification; administration of oxygen and medications approved by the Arizona Department of Health Services, office of Emergency Medical Services; advanced airway techniques; use of specific immobilization devices, peripheral, interosseous, and central intravenous techniques, defibrillation, synchronized cardioversion, transcutaneous pacing; and preparing for transportation.

**Credit Hours Required:** 43

**Gainful Employment Data:** [View](#)

**Note:** There are special admission requirements for the Paramedicine Program. Call 928.717.7910 for details.

[Click for more information about this program](#)

## Program Requirements

- EMS 261 - Paramedicine I **Credits:** 14
- EMS 262 - Paramedicine II **Credits:** 4
- EMS 263 - Paramedicine III and Clinical Practicum **Credits:** 16
- EMS 264 - Paramedicine IV and Field Practicum **Credits:** 9

## Program Outcomes

Upon successful completion of the Paramedicine Certificate program, the learner will be able to:

1. Explain the human anatomy and function of the cells in systemic organs. (EMS 261, EMS 262, EMS 263)
2. Identify the roles, responsibilities, medical, legal and ethical issues that impact decisions within an EMS system. (EMS 261, EMS 262, EMS 263)
3. Perform patient assessments, analyzing medical history, physical exam and/or mechanisms of injury to formulate a patient treatment plan. (EMS 261, EMS 262, EMS 263, EMS 264)
4. Describe standards and guidelines that help ensure safe and effective ground and air medical care and transport for all types of incidents. (EMS 261)
5. Perform all aspects of patient care procedures including communication documentation, administration of medications and readiness of equipment and personnel. (EMS 263, EMS 264)

# Pharmacy Technician Certificate

The Pharmacy Technician certificate program prepares the student to perform a wide variety of pharmacy related tasks under the direct supervision of a registered pharmacist, either in an out-patient setting or an inpatient setting. Successful completion of the program will qualify the student to take a National Certification Exam.

**Credit Hours Required:** 20

**Gainful Employment Data:** View

**Note:** There are special admission requirements for the Pharmacy Technician Program. An application for the program is available online at [www.yc.edu/pharmacy](http://www.yc.edu/pharmacy). Students must be at least 18 years of age prior to the start of the third semester of the program and have a high school diploma or GED; an Arizona Department of Public Safety Fingerprint Clearance Card; TB skin test or chest X-ray specifying absence of tuberculosis; CPR for Healthcare Providers card; immunizations outlined in application; reading proficiency. Admission to the program is once yearly in the summer session. Call 928.771.6122 for details.

## Program Requirements

- AHS 296 - Internship: Allied Health Services **Credits:** 3  
*Note: Students must complete all Pharmacy Technician requirements before enrolling in the Allied Health Services Internship. Permission of the program director is also required.*
- PHT 100 - Fundamentals of Pharmacy Technology **Credits:** 3
- PHT 110 - Pharmaceutical Calculations **Credits:** 3
- PHT 120 - Pharmacy Practice **Credits:** 4
- PHT 125 - Pharmacology **Credits:** 4
- PHT 200 - Pharmacy Technician Certification Review **Credits:** 3

## Program Outcomes

Upon successful completion of the Pharmacy Technician Certificate program, the learner will be able to:

1. Manage medical records adhering to security and privacy guidelines as outlined in HIPAA regulations. (AHS 296, PHT 120)
2. Use communication skills essential for the healthcare provider. (AHS 296, PHT 100, PHT 110, PHT 125)
3. Identify the relationship between anatomy/physiology, disease states and drugs affecting the respiratory, cardiovascular, renal, nervous, integumentary, endocrine, gastrointestinal, reproductive, ENT systems and over-the-counter drugs. (AHS 296, PHT 100, PHT 125)
4. Prepare, dispense, package and label drugs. (AHS 296, PHT 100, PHT 110, PHT 120)

# Phlebotomy Technician Certificate

The Phlebotomy Technician Certificate will prepare students to work as phlebotomists. Upon completing, students will be eligible to take the national phlebotomy certification exam.

**Credit Hours Required:** 8

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.*

## Program Requirements

- AHS 100 - Fundamentals of Health Care **Credits:** 3
- AHS 105 - Phlebotomy **Credits:** 2
- AHS 296 - Internship: Allied Health Services **Credits:** 3

**Note:** Students must enroll in AHS 296 within 3 semesters of completing AHS 105, as well as complete all Phlebotomy requirements and receive program director permission prior to enrollment.

## Program Outcomes

Upon successful completion of the Phlebotomy Technician Certificate program, the learner will be able to:

1. Safely collect and process specimens. (AHS 105)
2. Perform basic phlebotomy skills in a working environment. (AHS 296)
3. Manage medical records upholding security and privacy standards as outlined in HIPAA regulations. (AHS 100)

# Photography Certificate

The Photography Certificate focuses on proficiency of digital photography skills, basic design skills, and marketing skills to prepare students for entry-level employment in the various photography fields.

Students will develop technical competencies in digital photographic processes.

**Credits Hours Required:** 30

**Gainful Employment Data:** View

## Program Requirements

- ART 112 - Two-Dimensional Design **Credits:** 3
- ART 137 - Adobe Photoshop I **Credits:** 3
- ART 139 - Fundamentals of Video Editing **Credits:** 3
- ART 154 - Digital Photography I **Credits:** 3
- ART 156 - Photographic Lighting **Credits:** 3
- ART 158 - Photography Topics: **Credits:** 1
- ART 158 - Photography Topics: **Credits:** 1
- ART 158 - Photography Topics: **Credits:** 1
- **Note:** ART 158 must be completed three times totaling 3 credit hours.
- ART 230 - Digital Printing Technology and Applications **Credits:** 3
- ART 232 - Portfolio Development **Credits:** 2
- ART 237 - Adobe Photoshop II **Credits:** 3
- MGT 232 - Internet & Social Media Marketing **Credits:** 1

## Program Electives

Select 3 credit hours from the following courses:

- ART 114 - Color **Credits:** 3
- ART 160 - Printmaking I **Credits:** 3
- ART 296 - Internship: Art **Credits:** 3
- FMA 102 - Production I **Credits:** 3
- FMA 117 - Cinematography **Credits:** 3

## Program Outcomes

Upon successful completion of the Photography Certificate program, the learner will be able to:

1. Articulate and use compositional elements of the photographic image. (ART 112, ART 137, ART 139, ART 154, ART 156, ART 158, ART 230, ART 232, ART 237)
2. Identify and use properties of light for visual impact. (ART 154, ART 156, ART 158)
3. Edit images for output in the digital darkroom. (ART 137, ART 139, ART 154, ART 158, ART 237)
4. Articulate and apply industry standard business practices. (ART 137, ART 139, ART 154, ART 156, ART 230, ART 232, ART 237, MGT 232)
5. Develop creative solutions to visual problems. (ART 112, ART 137, ART 139, ART 154, ART 158, ART 230, ART 232, ART 237)
6. Synthesize and communicate design principles. (ART 112, ART 137, ART 139, ART 154, ART 156, ART 158, ART 230, ART 232, ART 237)
7. Articulate traditional and non-traditional art examples and how those examples affect popular visual literacy. (ART 112, ART 137, ART 139, ART 154, ART 156, ART 158, ART 230, ART 232, ART 237)

# Production Certificate

The Production Certificate provides hands-on training for producing well-crafted, engaging content across all platforms including film, television, and social media channels.

**Credit Hours Required:** 21

**Gainful Employment Data:** View

**Note:** Formerly Media Production Certificate

## Program Requirements

- FMA 102 - Production I **Credits:** 3
- FMA 103 - Screenwriting I **Credits:** 3
- **OR** FMA 108 - YouTube Content and Marketing **Credits:** 3
- FMA 105 - Production II **Credits:** 3
- FMA 106 - Editing I **Credits:** 3
- FMA 107 - Editing II **Credits:** 3
- FMA 110 - Pre-Production **Credits:** 3
- FMA 120 - Thesis Film/TV Production **Credits:** 3

## Program Outcomes

Upon successful completion of the Production Certificate program, the learner will be able to:

1. Exhibit a working knowledge of filmmaking equipment. (FMA102, 103, 105, 106, 107, 110, 120)
2. Create a short screenplay. (FMA 103, 108)
3. Create a short TV or Film production including pre-production schedule and budget documentation. (FMA102, 103, 105, 106, 107, 110, 120)
4. Utilize team building techniques. (FMA102, 103, 105, 106, 107, 108, 110 and 120)

# Production Horticulture Certificate

The Production Horticulture Certificate program is designed to prepare students for potential careers in the horticulture and greenhouse industry including grower, nursery technician, integrated pest management, greenhouse management and entrepreneur.

**Credit Hours Required:** 30

**Gainful Employment Data:** [View](#)

## Program Requirements

- AGS 103 - Plant Biology **Credits:** 4
- AGS 105 - Soils **Credits:** 3
- AGS 107 - Entomology **Credits:** 3
- AGS 157 - Community Supported Agriculture **Credits:** 3
- AGS 215 - Agricultural Mechanics **Credits:** 3
- AGS 250 - Horticulture Fall Production **Credits:** 4
- AGS 252 - Horticulture Spring Production **Credits:** 4
- AGS 274 - Water Management **Credits:** 3

Choose one of the following electives:

- AGS 101 - Microcomputers in Agriculture **Credits:** 3
- AGS 102 - Agribusiness Management **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3

## Program Outcomes

Upon successful completion of the Production Horticulture Certificate program, the learner will be able to:

1. Manage an extensive agriculture facility. (AGS 101 or 102 AGS 103, AGS 105, AGS 107, AGS 157, AGS 215, AGS 274, AGS 250, AGS 252)
2. Develop a water delivery and quality management system. (AGS 274)
3. Propagate plants sexually and asexually. (AGS 103, AGS 250, AGS 252)
4. Develop and implement an integrated pest management system. (AGS 107, AGS 250, AGS 252)

# Programming Certificate

The Programming Certificate prepares students for employment in entry-level programming fields.

**Credit Hours Required:** 21

**Gainful Employment Data:** [View](#)

**This certificate is not currently eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.**

## Program Requirements

- CSC 105 - Introduction to Programming **Credits:** 3
- CSC 113 - Programming: Python **Credits:** 3
- CSC 120 - Survey of Operating Systems **Credits:** 3
- CSC 125 - Programming: C# Fundamentals **Credits:** 3
- CSC 205 - Programming: JavaScript, HTML & CSS **Credits:** 3
- CSC 211 - Programming: PHP and MySQL **Credits:** 3
- CSC 220 - Programming: Java **Credits:** 3

## Program Outcomes

Upon successful completion of the Programming Certificate program, the learner will be able to:

1. Employ proper use of programming language. (CSC 105, CSC113, CSC 120, CSC 125, CSC 205, CSC 211, CSC 220)
2. Define a problem with possible solutions. (CSC 105, CSC 120, CSC 205, CSC 211)
3. Communicate ideas clearly and effectively. (CSC 105, CSC 120)

# Screenwriting Certificate $\infty$

The Film and Media Arts Screenwriting Certificate is designed to focus on storytelling across the media. Artistic expression is covered using iconic films, history of the industry and how to write film reviews and criticism. Business applications for screenwriting is also covered and includes video-based information delivery such as tutorials, marketing/sales, social media content, education, YouTube, film and television. Screenwriting students will learn how to grow their writing and storytelling skills in basic editing skills, and writing in their chosen media: film, television, webisodes and industrial video.

**Credits Hours required:** 18

**Gainful Employment Data:** View

$\infty$ **Note:** *This program can be completed entirely online.*

## Program Requirements

- ART 139 - Fundamentals of Video Editing **Credits:** 3
- FMA 101 - Film/TV History and Analysis **Credits:** 3
- FMA 103 - Screenwriting I **Credits:** 3
- FMA 109 - Screenwriting: Iconic Film and Television Analysis **Credits:** 3
- FMA 112 - Film/TV/Media Reviews and Criticism **Credits:** 3
- FMA 121 - Screenwriting II **Credits:** 3

## Program Outcomes

Upon successful completion of the Screenwriting Certificate program, the learner will be able to:

1. Exhibit a working knowledge of film history and iconic film and television. (FMA101, 103, 109, 112, 121)
2. Create a short screenplay. (FMA 103, 121)
3. Create TV, Film and business-based scripts. (FMA 103, 121)
4. Utilize team building techniques. (FMA103, 121)
5. Exhibit a working knowledge of editing as a storytelling method. (ART139)

# Service Dog Certificate

For Canine Care and Handling Certificate Graduates, the Service Dog Program continues with advanced canine handling skills needed for service dogs. It provides basic canine health care and focus on public interactions and laws for service dogs. It includes specific service task training so dogs are able to fulfill service responsibilities and specialized tasks for the handler or a designated recipient. Students pursuing the Service Dog Certificate are expected to work with one designated canine throughout the program. American with Disabilities Act states that only a person with a recognized medical disability may have a Service Dog.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

## Program Requirements

- AGC 190 - Canine Behavior and Psychology I **Credits:** 3
- AGC 192 - Canine Behavior and Psychology II **Credits:** 3
- AGC 193 - Introduction to Canine Health Care **Credits:** 3
- AGC 194 - Canine Business **Credits:** 3
- AGC 195 - Canine Public Skills **Credits:** 2
- AGC 197 - Introduction to Service Dogs **Credits:** 2
- AGC 210 - Service Dog Public Access I **Credits:** 2
- AGC 211 - Service Dog Public Access II **Credits:** 2
- AGC 220 - Service Dog Task Training I **Credits:** 2
- AGC 221 - Service Dog Task Training II **Credits:** 2

## Program Outcomes

Upon successful completion of the Service Dog Certificate program, the learner will be able to:

1. Use positive canine training and handling skills. (AGS 190, AGS 192, AGS 195, AGS 210, AGS 211, AGS 220, AGS 221)
2. Identify canine behavior and psychology to analyze and train. (AGS 190, AGS 192, AGS 195, AGS 210, AGS 211, AGS 220, AGS 221)
3. Articulate and use canine training concepts and skills for working with service dogs. (AGS 190, AGS 192, AGS 195, AGS 210, AGS 211, AGS 220, AGS 221)
4. Exhibit the training of service dog tasks. (AGS 220, AGS 221)
5. Communicate issues of handling a service dog with the general public. (AGS 194, AGS 195, AGS 210, AGS 215)
6. Identify and articulate laws for handling a service dog. (AGS 197)
7. Adhere to ADI minimum standards. (AGS 197, AGS 211, AGS 221)
8. Recognize the difference between laws and ethics. (AGS 197)
9. Use canine handling skills for service dogs in highly diverse and distracting public environments. (AGS 195, AGS 210, AGS 211)
10. Identify, analyze, and articulate health related needs of canines: general anatomy, disease control, first aid, nutrition, grooming, breeding. (AGS 193, AGS 197)
11. Use veterinary vocabulary to authorize and facilitate optimal canine health care. (AGS 194)
12. Explain the available boarding requirements needed for service dogs. (AGS 194)
13. Prepare and understand legal documents for service dogs. (AGS 194, AGS 197)
14. Describe service dog air and boat travel needs and travel with a service dog nationally and internationally. (AGS 197, AGS 211)

# Therapy and Service Dog Team Skills Certificate

The Therapy and Service Dog Team Skills Certificate provides the student and canine with skills required for therapy dog team work and the canine behavior foundation skills for the student/canine team to continue on with advanced service dog training from third party providers. The student/canine team will also gain the skills needed to take the Canine Good Citizen (CGC) test and the therapy dog evaluation exam offered by evaluators from three national therapy dog organizations.

**Minimum Credits Required:** 8

This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit the YC Answer Center.

## Program Requirements

- AGC 190 - Canine Behavior and Psychology I **Credits:** 3
- AGC 192 - Canine Behavior and Psychology II **Credits:** 3
- AGC 195 - Canine Public Skills **Credits:** 2

## Program Outcomes

Upon successful completion of the Therapy and Service Dog Team Skills Certificate program, the learner will be able to:

1. Apply positive canine training and handling skills. (AGS 190, AGS 192, AGS 195)
2. Explain canine behavior and psychology and apply it to training and to reading a dog's body presentation. (AGS 190, AGS 192, AGS 195)
3. Articulate and use canine training concepts and skills in working with service and therapy dogs. (AGS 195)
4. Apply communication skills with the general public. (AGS 195)
5. Use canine handling skills in diverse public environments and with distractions. (AGS 190, AGS 192, AGS 195)

# Video Game Developer Certificate $\infty$

The Video Game Developer certificate focuses on providing students with skills in high level object oriented programming. Applications used for skill development are 2-D and 3-D video game applications for use on PCs, MACs, Smartphones, the Web, and commercial video game consoles.

**Credit Hours Required:** 21

**Gainful Employment Data:** [View](#)

**$\infty$ Note:** *This program can be completed entirely online.*

## Program Requirements

- VGD 121 - Video Game Development for Game Engines I **Credits:** 3
- VGD 122 - Video Game Development for Game Engines II **Credits:** 3
- VGD 151 - 3D Modeling and Animation I **Credits:** 3
- VGD 152 - 3D Modeling and Animation II **Credits:** 3
- VGD 171 - Video Game Development - Programming I **Credits:** 3
- VGD 172 - Video Game Development - Programming II **Credits:** 3
- VGD 180 - Game Theory and Design Principles **Credits:** 3

## Program Outcomes

Upon successful completion of the Video Game Developer Certificate program, the learner will be able to:

1. Create video games suitable for use on a PC, MAC, or mobile device. (VGD 121, VGD 122, VGD 151, VGD 152, VGD 171, VGD 172)
2. Design 3D objects and animations for use in video games. (VGD 121, VGD 122, VGD 151, VGD 152, VGD 171, VGD 172)
3. Write error free programming for use in video games. (VGD121, VGD122, VGD 171, VGD172)
4. Produce video game documentation based on game design theory and principles. (VGD 180)
5. Develop Rigged Models with animations for use in video games. (VGD 151, VGD 152)

# Viticulture Certificate

The Viticulture certificate is designed to prepare individuals for various careers in the grape growing industry. Classroom instruction, laboratory and field applications of viticultural principles and practices are included in the program of study.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

## Program Requirements

- AGS 105 - Soils **Credits:** 3
- AGS 107 - Entomology **Credits:** 3
- AGS 274 - Water Management **Credits:** 3
- VEN 100 - Introduction to Viticulture **Credits:** 3
- VEN 101 - Establishing a Vinifera Vineyard **Credits:** 3
- VEN 102 - Maintaining a Vinifera Vineyard **Credits:** 3
- VEN 195V - Viticulture Practicum **Credits:** 2

**Note:** Students must complete VEN 195V in Fall, Spring and Summer for a total of 6 credits.

## Program Outcomes

Upon successful completion of the Viticulture Certificate program, the learner will be able to:

1. Design a site for vitis vinifera production. (AGS 105, AGS 274, VEN 100, VEN 101, VEN 102)
2. Maintain crop health. (AGS 105, AGS 107, AGS 274, VEN 100, VEN 101, VEN 102, VEN 195V)
3. Grow wine grapes. (AGS 107, AGS 274, VEN 100, VEN 101, VEN 102, VEN 195V)

# Welding - Gas Metal Arc Welding Certificate

Prepares students for employment in welding positions requiring competency in the field of Gas Metal Arc Welding. Coursework may upgrade skills and assist in career advancement for currently employed welders.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

## Program Requirements

- WLD 130 - Oxyacetylene **Credits:** 4
- WLD 140 - Arc I **Credits:** 4
- WLD 145 - Arc II **Credits:** 4
- WLD 156 - Blueprint Reading **Credits:** 4
- WLD 210 - Gas Metal Arc Welding **Credits:** 4
- WLD 250 - Welded Metal Fabrication **Credits:** 4

## Program Outcomes

Upon successful completion of the Welding - Gas Metal Arc Certificate program, the learner will be able to:

1. Use welding safety procedures. (WLD 130, 140, 145, 210, 250)
2. Interpret welding blueprints. (WLD 130, 140, 156, 250)
3. Operate oxyacetylene equipment to weld, cut, braze, and braze weld to industry requirements. (WLD 130, 145)
4. Operate shielded metal arc welding equipment to industry requirements. (WLD 140, 145)
5. Order, layout, and fabricate material as required by blueprints. (WLD 250)
6. Operate gas metal arc welding equipment to industry requirements. (WLD 210)

# **Welding - Gas Tungsten Arc Welding Certificate**

Prepares students for employment in welding positions requiring competency in the field of Gas Tungsten Arc Welding. Coursework may upgrade skills and assist in career advancement for currently employed welders.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

## **Program Requirements**

- WLD 130 - Oxyacetylene **Credits:** 4
- WLD 140 - Arc I **Credits:** 4
- WLD 145 - Arc II **Credits:** 4
- WLD 156 - Blueprint Reading **Credits:** 4
- WLD 200 - Gas Tungsten Arc Welding **Credits:** 4
- WLD 250 - Welded Metal Fabrication **Credits:** 4

## **Program Outcomes**

Upon successful completion of the Welding - Gas Tungsten Arc Certificate program, the learner will be able to:

1. Use welding safety procedures. (WLD 130, 140, 145, 200, 250)
2. Interpret welding blueprints. (WLD 130, 140, 156, 250)
3. Operate oxyacetylene equipment to weld, cut, braze, and braze weld to industry requirements. (WLD 130, 145)
4. Operate shielded metal arc welding equipment to industry requirements. (WLD 140, 145)
5. Order, layout, and fabricate material as required by blueprints. (WLD 250)
6. Operate gas tungsten arc welding equipment to industry requirements. (WLD 200)

# Welding - Pipe Welding Certificate

The Pipe Welding Certificate prepares students for employment in welding positions requiring competency in the field of Pipe Welding. Coursework may upgrade skills and assist in career advancement for currently employed welders.

**Credit Hours Required:** 24

**Gainful Employment Data:** [View](#)

## Program Requirements

- WLD 130 - Oxyacetylene **Credits:** 4
- WLD 140 - Arc I **Credits:** 4
- WLD 145 - Arc II **Credits:** 4
- WLD 156 - Blueprint Reading **Credits:** 4
- WLD 250 - Welded Metal Fabrication **Credits:** 4
- WLD 282 - Pipe Welding I **Credits:** 4

## Program Outcomes

Upon successful completion of the Welding - Pipe Welding Certificate program, the learner will be able to:

1. Use welding safety procedures. (WLD 130, 140, 145, 250, 282)
2. Interpret welding blueprints. (WLD 130, 140, 156, 250, 282)
3. Operate oxyacetylene equipment to weld, cut, braze, and braze weld to industry requirements. (WLD 130, 145)
4. Operate shielded metal arc welding equipment to industry requirements. (WLD 140, 145, 282)
5. Order, layout, and fabricate material as required by blueprints. (WLD 250)
6. Explain proper welding skills for fabricating pipe. (WLD 282)

# Welding - Structural Welding Certificate

The Structural Welding certificate prepares students for employment in positions requiring competency in the field of welding. Coursework may upgrade skills and assist in career advancement for currently employed welders.

**Credit Hours Required:** 16

**Gainful Employment Data:** [View](#)

## Program Requirements

- WLD 130 - Oxyacetylene **Credits:** 4
- WLD 140 - Arc I **Credits:** 4
- WLD 145 - Arc II **Credits:** 4
- WLD 156 - Blueprint Reading **Credits:** 4

## Program Outcomes

Upon successful completion of the Welding - Structural Certificate program, the learner will be able to:

1. Use welding safety procedures. (WLD130, 140, 145)
2. Interpret welding blueprints. (WLD 130, 140, 156)
3. Operate oxyacetylene equipment to weld, cut, braze, and braze weld to industry requirements. (WLD130, 145)
4. Operate shielded metal arc welding equipment to industry requirements. (WLD140, 145)

# Windows Server Administrator Certificate

The Windows Server Administrator certificate program is designed to prepare students to manage a Windows server and network infrastructure. Students acquire skills in directory services, server configuration, and network services. Students are prepared for server administrator and support positions. Prepares students for the MCITP: Server Administrator certification.

**Credit Hours Required:** 20

**Gainful Employment Data:** View

## Program Requirements

- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 115 - Computer Networking Technologies II **Credits:** 4
- CNT 120 - Introduction to Windows Server **Credits:** 3
- CNT 122 - Windows Server I **Credits:** 4
- CNT 123 - Windows Server II **Credits:** 3
- CNT 220 - Windows Server III **Credits:** 3

## Program Outcomes

Upon successful completion of the Windows Server Administrator Certificate program, the learner will be able to:

1. Describe and configure the hardware and software used in a small- to medium-sized computer network. (CNT 100)
2. Discuss the methods and operation of local and wide area networks. (CNT 115)
3. Perform administrative and troubleshooting tasks on Windows server operating systems. (CNT 120)
4. Manage and maintain a Microsoft Windows Server Active Directory environment. (CNT 122)
5. Manage and support a Microsoft Windows Server network infrastructure. (CNT 123)
6. Plan and manage a Windows server infrastructure in an enterprise environment. (CNT 220)

# Course Descriptions

## ACC 115 - Basic Tax Planning

**Description:** Techniques of federal individual, partnership and corporation income tax preparation. Emphasis on tax return preparation, with review of individual income tax law and applications of that law to tax return forms.

**Prerequisite:** ACC 121 (may be taken concurrently).

**Recommended preparation:** ACC 131 and ACC 132 .

**Credits:** 3

**Lecture:** 3

## ACC 116 - Advanced Tax Planning and Preparation

**Description:** Advanced study in individual, corporate, and partnership taxation.

**Prerequisites:** ACC 115

**Credits:** 4

**Lecture:** 4

## ACC 121 - Introductory Accounting

**Description:** General ledger bookkeeping and preparing financial statements.

**Credits:** 3

**Lecture:** 3

## ACC 122 - Payroll Accounting

**Description:** Payroll functions for a business including timekeeping techniques, payroll accounting records, check writing, preparation of federal and state payroll reports, insurance reports, and retirement plan reports. Manual recordkeeping and report submission as well as computerized payroll will be covered.

**Prerequisites:** ACC 121.

**Credits:** 3

**Lecture:** 3

## ACC 131 - Principles of Accounting I

ACC 2201.

**Description:** Principles and procedures of accrual accounting applied to preparation and interpretation of general purpose financial statements.

**Prerequisites:** ACC 121 or assessment into MAT 212.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** SUN# ACC 2201

## **ACC 132 - Principles of Accounting II**

ACC 2202.

**Description:** Fundamentals of managerial accounting with an emphasis on cost accounting, budgeting, and managerial decision-making.

**Prerequisites:** ACC 131

**Credits:** 3

**Lecture:** 3

**Course Attributes:** SUN# ACC 2202

## **ACC 161 - Computer Accounting with QuickBooks**

**Description:** Use of QuickBooks for general ledger bookkeeping and personal finance. Emphasis on solving advanced accounting simulations.

**Prerequisites:** ACC 121 or ACC 131

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **ACC 162 - Microsoft Excel and Access in Accounting Applications**

**Description:** Use of the spreadsheet software Microsoft Excel and the database software Microsoft Access in the analysis of financial data and generating accounting reports.

**Prerequisites:** CSA 126 (or CSA 138 and CSA 139 ) and ACC 121

**Recommended preparation:** ACC 131 and ACC 132

**Credits:** 3

**Lecture:** 3

## **ACC 231 - Intermediate Accounting I**

**Description:** Financial accounting topics, including generally accepted accounting principles application, as well as rationale and clarification of the reasons for specific accounting principles. Includes analysis and use of balance sheets, cash and receivables, inventories, and temporary and long-term investments.

**Prerequisites:** ACC 131.

**Credits:** 4

**Lecture:** 4

## **ACC 296 - Internship: Accounting**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ACC 299 - Independent Study Accounting**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **AJS 101 - Introduction to Administration of Justice**

AJS 1101.

**Description:** Overview of the criminal justice system. Organization and jurisdiction of local, state, and federal law enforcement, judicial, and correctional systems. History and philosophy of each component of the criminal justice system and interrelations among the various agencies. Career opportunities and qualifying requirements.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: SUN# AJS 1101

## **AJS 103 - Public Safety Report Writing**

**Description:** Introduction to effective report writing in a variety of public safety incident settings, including law enforcement, fire safety and emergency medical situations. Emphasis on clear and concise writing as well as the legal ramifications of public safety reports.

**Credits:** 3

**Lecture:** 3

## **AJS 109 - Substantive Criminal Law**

**Description:** Nature, origins, purposes, structure and operation of the American criminal justice system. Constitutional limitations. Classification and basic elements of crimes. Common defenses to crimes. Syllabus Available

**Credits:** 3

**Lecture:** 3

## **AJS 123 - Ethics and Criminal Justice**

**Description:** Ethical issues, cultural influences and moral theories as they relate to the justice system. Focus on underlying values and ethical challenges faced by law enforcement, attorneys, the judiciary and correctional staff. Specific ethical scenarios common to the criminal justice system will be addressed. Emphasis on critical thinking and value decision making.

**Prerequisite:**

Reading Proficiency

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **AJS 170 - Forensic Science**

**Description:** Characteristics and elements of forensic science and the processes of collecting, preserving and analyzing different types of physical evidence. Includes organization of a crime laboratory, crime scene processing and legal aspects.

**Credits:** 3

**Lecture:** 3

## **AJS 192 - Serial Killers and Mass Murderers**

**Description:** Motives, methods and states of mind of both serial killers and mass murderers. Includes profiling of these killers and their victims, as well as theories of causation.

**Credits:** 3

**Lecture:** 3

## **AJS 200 - Current Issues in Criminal Justice**

**Description:** Current issues, trends, and techniques related to and affecting the criminal justice system.

**Credits:** 3

**Lecture:** 3

## **AJS 212 - Juvenile Justice Procedures**

**Description:** History and development of juvenile justice theories, procedures and institutions.

**Credits:** 3

**Lecture:** 3

## **AJS 225 - Criminology**

**Description:** Theories of criminality and the economic, social and psychological impact of crime, victimization, and the relationships between statistics and crime trends. The study of deviance and society's role in defining behavior.

**Credits:** 3

**Lecture:** 3

## **AJS 226 - Victimology and Crises Intervention**

**Description:** The study of victims of crime, including reasons that some individuals are victimized and the legal protections afforded to victims. Includes crisis interventions by the criminal justice system to assist victims and their families.

**Credits:** 3

**Lecture:** 3

## **AJS 230 - The Police Function**

**Description:** History and development, procedures and methods of operations of law enforcement agencies. Role of the individual law enforcement officer. Career opportunities and the hiring process.

**Credits:** 3

**Lecture:** 3

## **AJS 240 - The Correction Function**

**Description:** History and development of correctional theories, practices, and institutions. Modern ideologies and functions associated with both communitybased and custodial corrections systems.

**Credits:** 3

**Lecture:** 3

## **AJS 250 - Introduction to Global Security and Intelligence**

**Description:** Introduction to Homeland Security, global business security issues and transnational events which have global repercussions such as terrorism, war, disease, migration, and natural disasters.

**Credits:** 3

**Lecture:** 3

## **AJS 252 - Homeland Security**

**Description:** Introduction to Homeland Security and homeland defense policies and strategies, with a focus on immigration and border security.

**Credits:** 3

**Lecture:** 3

## **AJS 254 - Global Crime and Criminal Justice**

**Description:** Introduction to international criminal activity and organizations, particularly money laundering, drug smuggling and trafficking of humans. Includes international methods of crime prevention and prosecution.

**Credits:** 3

**Lecture:** 3

## **AJS 256 - Terrorism**

**Description:** History and causes of terrorism, with a focus on why the United States has become a target of terrorist groups. Includes approaches for combating and preventing terrorism.

**Credits:** 3

**Lecture:** 3

## **AJS 258 - Information Protection and Computer Security**

**Description:** Introduction to the unique challenges to protection of information and computer security posed by cyberspace.

**Credits:** 3

**Lecture:** 3

## **AJS 260 - Procedural Criminal Law**

**Description:** Procedural criminal law. Emphasis on rationale underlying major court holdings, the resulting procedural requirements, and the effect on the daily operations of the criminal justice system.

**Credits:** 3

**Lecture:** 3

## **AJS 270 - Community Relations**

**Description:** Recognition and understanding of community problems; community action programs; methods of coping with crisis situations, victimology, ethnic and minority cultures, environments, crime prevention and police operations.

**Credits:** 3

**Lecture:** 3

## **AJS 275 - Criminal Investigations**

**Description:** Theories of criminal investigation. Includes basic investigative techniques of crime scene procedures, case preparation, and interview techniques.

**Credits:** 3

**Lecture:** 3

## **AJS 278 - Neuroscience and the Law**

**Description:** A multi-disciplinary look at how new discoveries in neuroscience and our understanding of the brain are having a direct impact on the criminal justice system.

**Credits:** 3

**Lecture:** 3

## **AJS 290 - Constitutional Law: Civil Liberties and Civil Rights**

**Description:** The United States Constitution, including the Bill of Rights and the Fourteenth Amendment. Includes the impact of U.S. Supreme Court opinions on the history and development of civil liberties and civil rights, particularly as they pertain to the administration of justice and law enforcement.

**Credits:** 3

**Lecture:** 3

## **AJS 291 - Intensive Police Certification**

**Description:** Study of criminal investigations, police community relations, traffic accident investigation, introduction to administration of justice, law, legal principles, patrol procedures, vehicle operations, report and technical writing, physical conditioning, defense tactics, impact weapons, firearm proficiency and safety, first aid, fundamentals of hazardous materials, stress management and use of force. This course contains the Arizona Peace Officers Standards and Training curriculum required for peace officer certification. Prerequisite: Student must be appointed by an Arizona law enforcement agency.

**Credits:** 24

**Lecture:** 24

## **AJS 296 - Internship: Administration of Justice**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **AJS 298 - Special Justice Topics:**

**Description:** Introduction to a special justice topic with great relevance to the field.

**Prerequisite:** AJS 101.

**Credits:** 3

**Lecture:** 3

## **AJS 299 - Independent Study Administration of Justice**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **AGC 190 - Canine Behavior and Psychology I**

**Description:** Introduction to canine behavior in human society. Includes positive reinforcement training techniques, methods of affecting positive outcomes and compatible lifestyles between humans and canines, and an introduction to puppy development, dog breeds and canine body and behavioral language.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **AGC 192 - Canine Behavior and Psychology II**

**Description:** Psychology and behavior of canines along with training and observation skills applying positive reinforcement based concepts. Includes types and causes of aggression, complex behavior problems and dealing with fearful or stressed dogs. Emphasis on in-depth observation of canine body postures, communication with humans and human to canine communication.

**Prerequisite:** AGC 190

**Credits:** 3

**Lecture:** 3

## **AGC 193 - Introduction to Canine Health Care**

**Description:** Introduction to health needs of canines both physiologically and anatomically. Includes general first aid and CPR techniques, traditional and alternative disease management methods, grooming and hygiene essentials for dogs, and breeding practices including spay and neuter theories.

**Credits:** 3

**Lecture:** 3

## **AGC 194 - Canine Business**

**Description:** Communication skills with employees, and the general public related to canine activities to include: rescue groups, breeding, boarding, office or facility environments, and public events.

**Credits:** 3

**Lecture:** 3

## **AGC 195 - Canine Public Skills**

**Description:** Rules, ethics, laws, and training for dogs and handlers to test for therapy or service dog teams. Student/dog team training in a variety of public environments such as health facilities and businesses.

**Prerequisite:** AGC 192 (may be taken concurrently).

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGC 196 - Canine Sport Activities**

**Description:** Introduction to sport activities for canines such as agility, earth dog, fly ball, herding, obedience, rally, splash dog and tracking. Emphasis on rules and regulations for competition, health related issues, breeds and mixes best suited for selective sports, and local availability of canine sports. Includes preparatory handling skills and practice for sport dog activities. Field trips required.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGC 197 - Introduction to Service Dogs**

**Description:** Review of laws regarding Assistance, Service, Emotional Support and Therapy Dogs including American with Disabilities Act (ADA) laws vs. ethics. Includes misuse and abuse by the public of Service Dog teams and public resistance and abuse of Assistance and Service Dogs in public access. Overview of training requirements of Assistance, Service, Emotional Support and Therapy Dogs, and organizations that train Assistance and Service Dogs.

**Credits:** 2

**Lecture:** 2

## **AGC 210 - Service Dog Public Access I**

**Description:** Advances the Service Dog Team toward precise training responses and proper etiquette presentations for public access specifically for exposure to department stores, grocery stores, doctor visits, restaurants, and hair facilities. Team learn new training skills and proper communication with the public

**Prerequisites:** AGC 190, AGC 192, and AGC 195.

**Corequisite:** AGC 220.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGC 211 - Service Dog Public Access II**

**Description:** Advances the Service Dog Team toward precise training responses and proper etiquette presentations for public access specifically for exposure to public transportation, airplane travel, theaters, malls, casinos, professional care facilities, hospitals and extremely noisy and high activity public places. Building on previous classes, Teams learn new training skills and proper communication with the public.

**Prerequisite:** AGC 210.

**Prerequisite (may be taken concurrently):** AGC 193 and AGC 194.

**Corequisite:** AGC 221.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGC 220 - Service Dog Task Training I**

**Description:** Introduces critical tasks that Service Dogs must fulfill for service of specific disabilities. Primary tasks for Service Dog Teams are presented as well as reinforcement of previously learned public skills that provide ability for canine to perform in diversified situations

**Prerequisites:** AGC 190, AGC 192, and AGC 195.

**Corequisite:** AGC 210.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGC 221 - Service Dog Task Training II**

**Description:** Reinforces previously learned tasks and introduces different critical tasks that Service Dogs must fulfill for service of specific disabilities including task performance of Service Dog Team in public. Choosing and placing a Service Dog.

**Prerequisite:** AGC 220.

**Prerequisite (may be taken concurrently):** AGC 193 and AGC 194.

**Corequisite:** AGC 211.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGE 100 - Introductory Equine Science**

**Description:** Introduction to horses as they relate to humans including history and development, adaptation, basic anatomy, types and classes, breeds, and horsemanship.

**Credits:** 4

**Lecture:** 4

## **AGE 101 - Riding Methods I**

**Description:** Basics in pre-ride preparation, tacking, mounting, controlling and directing a horse at the walk and trot. Emphasis on safety, fundamental patterns, and smooth transitions. Includes exercises to develop focus, feel and balance to create fluid synchronization between horse and rider. Horse ownership required or contact instructor for lease option.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGE 120 - Equine Health and First Aid**

**Description:** Equine health management with emphasis on identifying potential problems at an early stage, causes and prevention. Includes terminology to better communicate with health care practitioners and horse handling during routine health maintenance, first aid, and emergency situations.

**Credits:** 2

**Lecture:** 2

**Lab:** 1

## **AGE 122 - Principles of Equine Nutrition**

**Description:** Principles of horse nutrition and its application to horse health. Includes the equine digestive system, functions of feeds, nutrient needs, protein, minerals, vitamins, water-soluble vitamins and rations. Emphasis on identifying potential problems at an early stage, causes and prevention.

**Credits:** 2

**Lecture:** 2

## **AGE 125 - Equine Behavior and Psychology**

**Description:** Exploration of how and why horses behave the way they do. Developmental timelines, perception, learning, social organization, and play. Includes observation and discussion of the elements that cultivate the horse/human connection.

**Credits:** 3

**Lecture:** 3

## **AGE 140 - Equine Hoof Care**

**Description:** Basic anatomy and physiology of the legs and feet. Equine conformation, movement and performance. Basic horseshoeing trimming techniques.

**Credits:** 3

**Lecture:** 3

## **AGE 157 - Equine Event Planning and Management**

**Description:** Events management for the equine industry. Includes selection of event, marketing, budget, insurance, registration and facility selection.

**Credits:** 2

**Lecture:** 2

## **AGE 158 - Fundamentals of Trail Riding**

**Description:** Preparation of horse and rider for safe and enjoyable trail rides. Includes appropriate tack selection, trail first aid, etiquette of riding in groups, camping considerations, and trailering. On-campus use of trail obstacle course includes water crossing, teeter-totter, pedestal and bridges. Horse ownership required or contact instructor for lease option. Ability to transport horse to site required.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGE 201 - Riding Methods II**

**Description:** Advanced riding skills for any discipline. Emphasis on safety, tack, grooming, horsemanship, and applicable gaits for various breeds. Focus on balance, control, posting, transitions, lateral work, training patterns and basic trail obstacles. Trailering and trail etiquette. Horse ownership required or lease option available; contact instructor.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AGE 231 - Professional Groom and Handler**

**Description:** Basic skills of handling horses in a safe manner to complete daily job duties in a working stable or show barn. Stall cleaning/maintenance, daily feeding/rations, inventory, purchasing, record keeping, ethics, and client relations. Grooming techniques and equipment. Responsibilities of a professional groom/handler.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **AGE 260 - Ground Skills and Training Techniques in Horsemanship**

**Description:** Ground skills necessary for safety, control and cooperation with horses. Various training philosophies as well as methodologies involved in preparing individuals to train their own horse. Includes hands-on sessions with horses to build ground manners for liberty and riding. Personal horses welcome but not required.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **AGE 296 - Internship: Equine**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Credits:** 3

**Repeatable:** Repeatable for a total of 6 credit hours towards degree/certificate requirements.

**Grading:** S/U grading only.

## **AGE 299 - Independent Study Agriculture Science Equine**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **AGS 101 - Microcomputers in Agriculture**

**Description:** Use of Microsoft Word, Excel, and PowerPoint for documentation, accounting and presentations in the agriculture industry.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **AGS 102 - Agribusiness Management**

**Description:** Introduction to the latest functions of agribusiness including history, starting and running a business, small business plans, input and output sectors, daily financial operations, and basic economic principles. Emphasizes principles of agricultural economics, and economic activity and analysis.

**Credits:** 3

**Lecture:** 3

## **AGS 103 - Plant Biology**

**Description:** An introduction to the growth, development, reproduction, and structure of vascular plants. Fundamental activities of plants including photosynthesis and respiration. Emphasis on agricultural and horticultural crops of Arizona. This course is cross-listed with BIO 103.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **AGS 105 - Soils**

**Description:** Comprehensive overview of the types of soils commonly found in North America with special emphasis on Southwestern soils. Course investigates the origin, formation, physical and chemical properties of soils and emphasizes soil testing, fertilization, and modifications to soils commonly found in landscapes, gardens and turf.

**Credits:** 3

**Lecture:** 3

## **AGS 106 - Soils Lab**

**Description:** Hands-on evaluation of factors important in soil sciences. Emphasis on soil remediation, protection and fertility through understanding of physical, chemical and biological properties of soil affecting plant growth, the environment and other land uses. Includes soils in a world ecosystem with focus on Arizona soils. Concentration on soil factors for agriculture, viticulture and environmental sciences.

**Prerequisite:** AGS 105 (may be taken concurrently)

**Credits:** 1

**Lecture:** 0

**Lab:** 2

## **AGS 107 - Entomology**

**Description:** Fundamental approaches in the control of greenhouse pests. Categories of pests, management practices, herbicide use, alternative pest control techniques, safety, and integrated pest management.

**Credits:** 3

**Lecture:** 3

## **AGS 120 - Introduction to the Animal Industry**

**Description:** Classification of agricultural animals, the reproductive process, behavior, basic genetics, growth and development, basic nutrition, welfare and consumer concerns. Emphasis on beef, sheep, swine, poultry, horses and fish. Alternative animals including rabbits, llamas, ostrich, baitfish, and honeybees.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AGS 155 - Hydroponics for the Home and Classroom**

**Description:** Construction, design, and use of hydroponic growing units for vegetable production. Includes basic nutrition, lighting, media and growth chambers.

**Credits:** 1

**Lecture:** 1

## **AGS 156 - Organic Home Gardening**

**Description:** Introduction to organic gardening in Yavapai County. Includes basic plant selection, soils, nutrients, and practices consistant with organic production for the home and small hobby farm.

**Credits:** 1

**Lecture:** 1

## **AGS 157 - Community Supported Agriculture**

**Description:** Production methods for scheduling crops for available space, seasonality, and customer need. Creation and implementation of plans for distribution and marketing sustainable, organic, and pesticide-free agriculture products.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **AGS 215 - Agricultural Mechanics**

**Description:** Principles and operative skills in agriscience technology, including troubleshooting, maintenance, and repair of common agriculture tools and equipment. Emphasis on mig welding, electricity, concrete and mortar, pumps, engines and motors, and basic construction practicing OSHA safety standards.

**Credits:** 3

**Lecture:** 1.5

**Lab:** 4.5

## **AGS 250 - Horticulture Fall Production**

**Description:** Horticulture production activities involved with the growing of market crops. Emphasis on hydroponic, greenhouse and field grown orchard and row crops. Includes team work and hands on learning managing and producing in an extensive greenhouse, orchard, organic and research gardens and flower beds. State of the art computer controls system and cutting edge techniques used in the cultivation of food crops and ornamentals. Requires additional flexible lab hours.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **AGS 252 - Horticulture Spring Production**

**Description:** Horticulture production principles and activities involved in the growing of market crops in an extensive greenhouse and outdoor production areas. Special emphasis on final stage of production and care of production producing plants, and maintaining inventory for YC Agritopia Plant Sale. Includes management of the facility through hands on learning. Requires additional flexible lab hours.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **AGS 261 - Aquaculture Science**

**Description:** Introduction to the aquaculture and fisheries industry and the related career opportunities. Basic fish culturing environments and species identification of fresh and saltwater fish. Fish biology, diseases, prevention and treatments. Includes fish feeds and feeding techniques.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

### **AGS 264 - Aquaculture Management**

**Description:** Methodologies used in managing aquaculture systems. Including breeding and rearing procedures of common fin fish, saltwater fish and crustaceans. Field experience in maintaining a rearing facility and producing a food fish from incubation to stocker or market size.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

### **AGS 274 - Water Management**

**Description:** Irrigation techniques for golf courses, greenhouses, aquaculture, and horse production including sizing pipes and fittings, backflow prevention, filtration, pumps, sprinklers, spraybooms, misters, and valves. Includes code requirements, blueprint reading, and bidding.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

### **AGS 280 - Zoo and Domestic Animal Care**

**Description:** Introduction to zoo and domestic animal care. Includes safety issues, zoo orientation, animal observation skills, sanitation, housing, feeding, capture and restraint equipment, animal transport, animal measurements, abnormal behavior and injuries.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

### **AGS 282 - Zoo and Domestic Animal Behavior**

**Description:** Assessment of animal behavior in a variety of species including domestic and exotic animals. Includes internal and external factors influencing animal behavior, social organization, genetics, communication, conflict, mating systems, and biological rhythms.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AGS 296 - Internship: Agriculture**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** Repeatable for a total of 6 credit hours towards degree/certificate requirements.

**Grading:** S/U grading only.

## **AGS 299 - Independent Study Agriculture**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **AHS 100 - Fundamentals of Health Care**

**Description:** Overview of current U.S. health care delivery systems and professions including behaviors for success, customer service, and quality improvement.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## **AHS 105 - Phlebotomy**

**Description:** Theory and practice of basic phlebotomy and specimen processing including laboratory tests, equipment, procedures, ethics, safety, legal issues and quality assurance.

Prerequisite: Reading Proficiency.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **AHS 114 - Nursing Assistant**

**Description:** Preparation for the role of a nursing assistant in a long term care facility. Basic nursing assistant skills and emergency procedures; client needs and rights; written and verbal communication; ethical and legal aspects; safety and infection control. Includes classroom and clinical instruction. Application required with the following documentation: Skin test or chest X-ray negative for TB, or equivalent within 12 months; current DPS fingerprint clearance card and CPR for the Healthcare Provider. Must be at least 16 years old.

**Prerequisite:**

Reading Proficiency

MAT 082 (or a satisfactory score on the mathematics skills assessment).

**Credits:** 5

**Lecture:** 4

**Lab:** 3

## **AHS 120 - Foundations of Medical Assisting I**

**Description:** Introduction to the role of the Medical Assistant. Preparation for work in a medical office including legal aspects, communication, customer service and records management.

**Prerequisite:** BIO 160 (or BIO 201 and BIO 202 ), AHS 100 , AHS 105 and AHS 130 .

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **AHS 121 - Foundations of Medical Assisting II**

**Description:** Introduction to patient assessment, diagnostic and surgical procedures, medication administration, and immunizations.

**Prerequisite:** AHS 120, CSA 126, HIM 240, and MAT 100 or higher or satisfactory score on mathematics skills assessment.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AHS 130 - Medical Terminology for Patient Care Staff**

**Description:** Medical terminology used in direct patient care, with special care populations and in special services. Building and analyzing terms using word parts. Body-systems approach to terms related to structure and function, pathologies, and diagnostic procedures. Spelling and pronunciation of terms, medical abbreviations and symbols.

**Prerequisite:**

Reading Proficiency

**Credits:** 3

**Lecture:** 3

## **AHS 140 - Pharmacology for Allied Health**

**Description:** Relationships among anatomy and physiology, disease states, and drugs affecting the endocrine, nervous, respiratory, visual, auditory, integumentary, gastrointestinal, urinary, cardiovascular, and reproductive systems. Overview of psychotropic agents, anti-infectives, analgesics, anti-inflammatories, federal drug laws, drug names and references, vitamins/minerals/herbs, and oncology agents.

**Prerequisite:**

AHS 130

AND

BIO 160 or (BIO 201 and BIO 202)

**Credits:** 2

**Lecture:** 2.

## **AHS 160 - Introduction to Human Anatomy and Physiology**

**Description:** Principles of scientific method. Structural organization, homeostasis and control mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body. This course is cross-listed with BIO 160 .

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AHS 230 - Complementary and Integrative Health Therapies**

**Description:** Examination of complementary and alternative health practices. Emphasizes the integration of body, mind and spirit with an evaluation of specific techniques and therapies. Application of critical thinking skills to analyze and compare conventional and alternative healthcare practices.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## **AHS 295 - AHS Practicum: Medical Assistant**

**Description:** Entry level Medical Assistant skills at a supervised host site. Application of cognitive, psychomotor, and affective skills necessary for performing administrative and technical functions in ambulatory healthcare settings including physician's offices, clinics, and urgent care settings.

**Prerequisites:** Completion of all program coursework and Practicum Application.

**Credits:** 3

**Lab:** 9

**Grading:** S/U grading only

## **AHS 296 - Internship: Allied Health Services**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisites:**

Must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **AHS 299 - Independent Study Allied Health Services**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **HIM 290 - Practicum: Health Information Management Professional Practice Experience**

**Description:** Completion of specific projects and/or assignments at a supervised host site, within a virtual environment, or as assigned by the instructor. Application of health information technology skills and knowledge to operational, managerial and administrative roles.

**Prerequisite:** Completion of all degree coursework and practicum application, proof of CPR for Healthcare Providers, Immunizations, TB skin test, fingerprint clearance card, background check, urine drug screen, and any other specific requirements of the clinical site must be completed prior to enrollment in this course.

**Credits:** 3

**Lab:** 9

**Grading:** S/U grading only.

## **ASL 101 - Beginning American Sign Language I**

**Description:** Principles, methods, and techniques of American Sign Language skills, with emphasis on developing visual/receptive skills and basic communication.

**Credits:** 4

**Lecture:** 4

## **ASL 102 - Beginning American Sign Language II**

**Description:** American Sign Language vocabulary, grammar, receptive, and expressive technique development.

Prerequisite: ASL 101.

**Credits:** 4

**Lecture:** 4

## **ASL 201 - Intermediate American Sign Language I**

**Description:** Proficiency and development of intermediate expressive and receptive skills. Emphasis on practical application of American Sign Language skills and cross-cultural communication.

Prerequisite: ASL 102.

**Credits:** 4

**Lecture:** 4

## **ASL 202 - Intermediate American Sign Language II**

**Description:** Extension of proficiency and development of receptive and expressive skills at the intermediate level. Emphasis on practical application of American sign language skills and cross-cultural communication with a focus on the cultural aspects.

Prerequisite: ASL 201.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **ASL 296 - Internship: American Sign Language**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

Prerequisite: Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ASL 299 - Independent Study American Sign Language**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **ANT 101 - Stones, Bones, and Human Origins**

**Description:** Introduction to physical anthropology. Emphasis on population genetics, primate evolution and behavior, and fossil man.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Social Science (AGEC)

## **ANT 102 - Introduction to Cultural Anthropology**

**Description:** Survey of anthropological principles with emphasis on concept of culture and nature of man as a social animal.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC)

## **ANT 104 - Buried Cities and Lost Tribes**

**Description:** Introduction to the portion of human history that extends back 2.5 million years before the time of written records and archives. Emphasis on study of the world prehistory of humankind from a global perspective.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Social Science (AGEC)

## **ANT 201 - Forensic Anthropology**

**Description:** Introduction to forensic anthropology. Emphasis on the examination of human skeletal remains for law enforcement agencies to determine the identity of unidentified bones.

**Prerequisite:** ENG 101 or ENG 103.

**Credits:** 3

**Lecture:** 3

## **ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective**

**Description:** Comparative anthropological survey of supernatural practices employed by western and nonwestern peoples in dealing with life crises, adversity, misfortune, bad luck, illness, death and similar phenomena beyond human control.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC)

## **ANT 230 - Principles of Archeology**

**Description:** Introduction to methods, theory, and techniques used in archaeology. The scope of human prehistory from the earliest human cultures to the rise of complex civilizations.

**Prerequisite:** ENG 101 or ENG 103.

**Credits:** 3

**Lecture:** 3

## **ANT 231 - Southwestern Archeology**

**Description:** Survey of man's prehistory in the southwestern United States beginning with the earliest evidence of man in the Southwest and concluding with the period just before Spanish contact.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Social Science (AGEC)

## **ANT 232 - Indians of the Southwest**

**Description:** Survey of major Indian groups of the southwestern United States: Pueblo, Navajo, Apache, Papago, Pima, River Yuman and Mountain Yuman (Yavapai, Hualapai, Havasupai). Emphasis on historical factors that have led to culture change. Development of these groups from Spanish contact to present.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC)

## **ANT 296 - Internship: Anthropology**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ANT 299 - Independent Study Anthropology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **ART 105 - Art Gallery Management**

**Description:** Introduction to practices and procedures of galleries. Includes management of gallery spaces, professional business practices, exhibition and marketing of artwork. Application of design principles.

**Prerequisite:** ART 112 and ART 113.

**Credits:** 3

**Lecture:** 2

**Lab:** 4

## **ART 110 - Drawing I**

ART 1111.

**Description:** Perspective and visual perception studied as related to developing artistic visual growth in perceiving our environment. Emphasis on analysis of objects and their compositional placement within pictorial construction. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Course Attributes:** Course Attributes: SUN# ART 1111

## **ART 111 - Drawing II**

**Description:** Development of technical and perceptual skills. Emphasis on composition as developed by shape, form, color and the special dynamics of plastic space. Application of design principles.

**Prerequisite:** ART 110.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 112 - Two-Dimensional Design**

ART 1112.

**Description:** Introduction to visual language utilized in all areas of art. Basic compositional principles and elements of two-dimensional design practiced through assigned projects. Various media explored. Application of design principles.

**Credits:** 3

**Lecture:** 2

**Lab:** 4

**Course Attributes:** Course Attributes: SUN# ART 1112

## **ART 113 - Three-Dimensional Design**

**Credits:** 3

**Lecture:** 2

**Lab:** 4

**Description:** Study of design principles with emphasis on three-dimensional aesthetics. Planning of sculptural, utilitarian, and environmental objects. Application of design principles.

**Course Attributes:** Course Attributes: SUN# ART 1115

## **ART 114 - Color**

**Description:** Principles of color theory related to the visual arts. Includes variety of media. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 115 - Color Pencil/Pastel**

**Description:** Color pencils and pastels as medium for drawing and painting. Emphasis on development of creative expression and study of color blending. Application of design principles.

**Prerequisite:** ART 110.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 120 - Ceramics I**

**Description:** Introduction to ceramics hand building techniques. Includes primary use of glazes, glaze applications, kiln firing processes and kiln atmosphere. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 121 - Ceramics II**

**Description:** Concentration on use of the potter's wheel and other clay-building methods, further development of glazing and firing. Application of design principles.

**Prerequisite:** ART 120.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 130 - Web Site Design I**

**Description:** Introduction to design and production of Web pages for publishing on the Internet using Adobe Creative Suite software. Application of design principles. This course is cross-listed with WEB 130.

**Prerequisite:** ART 137 (may be taken concurrently)

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **ART 131 - Graphic Design I**

**Description:** Creative solutions to problems of visual communication. Skill development in basic advertising layout and design. Basic typography and comprehensive roughs using Adobe Creative Suite Software. Application of design principles.

**Prerequisite:** ART 112 (may be taken concurrently).

**Credits:** 4

**Lecture:** 1

**Lab:** 7

## **ART 132 - Graphic Design II**

**Description:** Creative solutions to advanced problems of visual communication. Skill development in advertising, logos, advanced layout and packaging using Adobe Creative Suite software. Application of design principles.

Prerequisite: ART 131 and ART 137.

**Credits:** 4

**Lecture:** 1

**Lab:** 7

## **ART 137 - Adobe Photoshop I**

**Description:** Digital image fundamentals. Technical and creative use of Adobe® Photoshop® image manipulation software. Use of peripheral commercial hardware and software for image capture. Application of design principles.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **ART 139 - Fundamentals of Video Editing**

**Description:** Basic techniques of capturing, editing, and distributing video content. Hands-on application of techniques for digital video; editing vocabulary; and sharing digital video.

**Credits:** 3

**Lecture:** 1

**Lab:** 2

## **ART 140 - Jewelry I**

**Description:** Introduction to jewelry fabrication techniques for non-ferrous metals and associated materials. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 141 - Jewelry II**

**Description:** Advanced jewelry techniques, surface embellishment, casting, fabrication, forging, and joining non-ferrous metals. Application of design principles.

**Prerequisite:** ART 140.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 142 - Lapidary I**

**Description:** Introduction to the tools, machinery and processes of the lapidary arts. Orientation to various geological source materials. Application of design principles.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **ART 143 - Theater Set Building**

**Description:** Introduction to set design and building, joinery, machining, hand skills, assembly and finishing techniques. Application of design principles. This course is cross-listed with THR 143.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 144 - Furniture and Woodworking I**

**Description:** Introduction to furniture design, joinery, machining, hand skills, assembly and finishing techniques. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 145 - Furniture and Woodworking II**

**Description:** Advanced furniture design, joinery, jig building, and woodworking techniques. Application of design principles.

**Prerequisite:** ART 144.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 147 - Wood Turning I**

**Description:** Study of theory and design of wood lathe-turned objects. Includes wood-turning techniques, use of wood lathe and associated tooling. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 154 - Digital Photography I**

**Description:** Creative digital camera operation. Identifying, measuring and controlling light values. Digital darkroom techniques, workflow applications and output processes. Application of design principles. Requires a Digital single lens reflex (SLR) camera with manually adjustable aperture, shutter speed, and focus.

**Prerequisite:** ART 137 (may be taken concurrently).

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 156 - Photographic Lighting**

**Description:** Fundamentals of photographic lighting. Understanding, measuring and controlling lighting situations. Studio and location lighting. Application of design principles.

**Prerequisites:** ART 154 (may be taken concurrently)

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **ART 157 - Digital Photography II**

**Description:** Advanced creative digital camera operation and exposure control. Advanced digital darkroom techniques, workflow applications and output processes. Application of design principles. Requires a Digital single lens reflex (SLR) camera with manually adjustable aperture, shutter speed and focus. Application of design principles.

**Prerequisite:** ART 154 and ART 237 (ART 237 may be taken concurrently).

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 158 - Photography Topics:**

**Description:** Exploration of Photographic media.

**Prerequisite:** ART 154 (may be taken concurrently) or instructor permission.

**Credits:** 1

**Lecture:** 1

**Repeatable:** [Repeatable for a total of 3 credit hours towards degree/certificate requirements.]

## **ART 160 - Printmaking I**

**Description:** Introduction to printmaking techniques including monoprint, collograph, relief and elementary intaglio printing. Exploration of different methods of inking, registration, hand and press techniques. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 162 - Monoprint I**

**Description:** Introduction to principles of water-base and oil-base techniques for this single print process. Techniques of registration and color overlays. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 180 - Sculpture I**

**Description:** Introductory exploration of sculpture through fabrication, casting and carving. Use the human form and abstraction for creative problem solving. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 181 - Sculpture II**

**Description:** Advanced sculpture processes: modeling, mixed media, casting, and stone carving. Develop personal imagery and aesthetics through sculptural form.

**Prerequisite:** ART 180.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 182 - Sculpture: Welded Metal I**

**Description:** Exploration of sculpture using Oxyacetylene torches and GMAW (wire) arc welding processes. Emphasis on welding, cutting, and shaping metal to explore sculptural forms. No prior welding experience is necessary. Application of design principles.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 183 - Sculpture: Welded Metal II**

**Description:** Continued exploration of sculpture using Oxyacetylene torches and GMAW (wire) arc welding processes. Assignments expand personal imagery in metal sculpture. Application of design principles.

**Prerequisite:** ART 182.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 190 - Oil/Acrylic Painting I**

**Description:** Study and experimentation in painting techniques employed by modern and old masters. Emphasis on personal creativity and uniqueness of expression. Application of design principles.

**Prerequisite:** ART 110.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 191 - Oil/Acrylic Painting II**

**Description:** Development of personal expression through study of different techniques of painting. Application of design principles.

**Prerequisite:** ART 190.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 193 - Plein-Air Painting**

**Description:** Outdoor landscape painting with emphasis on fostering creative expression in visual interpretation of natural forms through the study of composition, color and perspective. Application of design principles.

**Prerequisite:** ART 110.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 194 - Watercolor I**

**Description:** Exploration of transparent qualities of watercolor medium. Techniques and materials used to stimulate personal creativity and uniqueness of expression. Application of design principles.

**Prerequisite:** ART 110.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 195 - Watercolor II**

**Description:** Independent development using the watercolor medium. Study of varied techniques will be utilized to meet individual needs. Application of design principles.

**Prerequisite:** ART 194.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 196 - Portraiture I**

**Description:** Emphasis on portraiture techniques for individuals proficient in a specific medium. Application of design principles.

**Prerequisite:** ART 110 and ART 190.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 197 - Portraiture II**

**Description:** Advanced study of portraiture personalizing techniques and palettes. Emphasis on capturing the subject's personality. Application of design principles.

**Prerequisite:** ART 196.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 198 - Art Topics**

**Description:** Exploration of art media.

**Credits:** 1

**Lecture:** 1

**Repeatable:** [Repeatable for a total of 2 credit hours towards degree/certificate requirements.]

## **ART 200 - Art History I**

ART 1101.

**Description:** Western art from the Paleolithic Period to the Fourteenth Century. Two and three dimensional art and architecture evaluated in historical and cultural context. Application of design principles.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Global/Internl or Historical, Intensive Writing, SUN# ART 1101

## **ART 201 - Art History II**

ART 1102.

**Description:** Western art from the Fourteenth to the Twentieth Century. Two and three dimensional art and architecture are evaluated in historical and cultural context. Application of design principles.

**Prerequisite:** ENG 101 or ENG 103 Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Arts & Humanities (AGEC), Ethnic, Race & Gender, Global/Internl or Historical, Intensive Writing, SUN# ART 1102

## **ART 202 - History of Modern and Contemporary Art**

**Description:** Western art, craft, design and architecture from 1850 to the present. Two and three dimensional art, craft, design and architecture are evaluated in historical and cultural context. Application of design principles.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Global/Internl or Historical, Intensive Writing

## **ART 210 - Life Drawing I**

**Description:** Developing skills and expressiveness in drawing a basic form, construction and gesture of the human figure. Application of design principles.

**Prerequisite:** ART 110.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 211 - Life Drawing II**

**Description:** Emphasis on drawing forms. Personal growth and individual techniques developed through projects emphasizing various media and techniques in drawing history. Application of design principles.

**Prerequisite:** ART 210.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 212 - Life Painting**

**Description:** Techniques of figure painting with an emphasis on the form, construction and gesture of the figure. Application of design principles.

**Prerequisite:** ART 110 and ART 190.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 222 - Advanced Projects: Ceramics**

**Description:** Advanced study of clay building methods, glazing and firing techniques with emphasis on design and honing personal aesthetic.

**Prerequisite:** ART 121.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 230 - Digital Printing Technology and Applications**

**Description:** Fundamentals of digital print technology, including color management, short run print processes, and fine art giclee printing. Application of design principles.

**Prerequisite:** ART 137.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 231 - Graphic Design Illustration**

**Description:** Contemporary styles in editorial, story, and advertising illustration. Skill development in information graphics, figure illustration and product design using Adobe Creative Suite software. Application of design principles.

**Prerequisite:** ART 110 or ART 112.

**Credits:** 4

**Lecture:** 1

**Lab:** 7

## **ART 232 - Portfolio Development**

**Description:** Develop traditional and electronic graphic design and fine arts portfolios. Create resume and other career search materials. Develop advanced design and technical skills. Exhibition skills. Apply design principles. Completed body of art work needed for class.

**Prerequisite:** ART 112 and ART 137 or Instructor Permission.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **ART 236 - Digital Pre-Press**

**Description:** Preparation of computer files for submission to a digital and off-set printer. Emphasis on final output and terminology. Application of design principles.

**Prerequisite:** ART 131 and ART 137.

**Credits:** 2

**Lecture:** 2

## **ART 237 - Adobe Photoshop II**

**Description:** Still photography digital manipulation. Use of computer and peripheral hardware and associated commercial software with Adobe Photoshop software to alter photographic images. Production of still image files and hardcopy output. Application of design principles.

**Prerequisite:** ART 137.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **ART 242 - Lapidary II**

**Description:** Advanced techniques using specialized lapidary tools to create cabochons from rare materials. Application of design principles.

**Prerequisite:** ART 142.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **ART 245 - Advanced Projects in Jewelry**

**Description:** Advanced individual projects in jewelry and metalsmithing. Includes review of processes, tools, and materials. Application of design principles.

**Prerequisite:** ART 140 and ART 141.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **ART 247 - Wood Turning II**

**Description:** Use of the wood lathes for creative expression. Contemporary tools and techniques used on and off the lathes to create artistic woodturnings. Application of design principles.

**Prerequisite:** ART 147.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 248 - Advanced Projects in Wood**

**Description:** Designing, fabricating functional pieces and/or making sculpture to explore the potentials of the medium. Projects are to be a unified series. Application of design principles.

**Prerequisite:** ART 145.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **ART 249 - Advanced Projects in Wood Turning**

**Description:** Emphasis on design and varied techniques to explore the potentials of three-dimensional form. Projects are to be a unified series working toward portfolio development. Application of design principles.

**Prerequisite:** ART 247.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **ART 254 - Digital Photography III**

**Description:** Application of digital photographic techniques in the photographic market. Commercial studio lighting. Portrait, landscape and documentary photography. Nontraditional media and processes. Marketplace research and portfolio development. Advanced application of design principles.

**Prerequisite:** ART 157 and either ART 237 or ART 256.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **ART 258 - Photographic Lighting II**

**Description:** Advanced photographic lighting techniques. Studio and location lighting applications. Application of design principles.

**Prerequisite:** ART 156.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **ART 260 - Printmaking II**

**Description:** Basic techniques of etching, aquatint, and softground processes. Use of engraving, etching tools and roulettes for hand-texturing techniques. Single plate color techniques. Application of design principles.

**Prerequisite:** ART 160.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 261 - Printmaking III**

**Description:** Advanced study of printmaking techniques in areas such as combined plate processes of embossment, collograph, texturing build-up techniques and multiple-plate processes of intaglio and relief printing. Application of design principles.

**Prerequisite:** ART 260.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 262 - Monoprint II**

**Description:** Techniques of single-plate building for depth of color, value, texture, linear or value properties. Exploration of lift-off and other techniques in both water and oil media. Application of design principles.

**Prerequisite:** ART 162.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 281 - Advanced Projects in Sculpture**

**Description:** Design and techniques for additive process, carved and/or mixed media sculpture to explore the potentials of three-dimensional form. Projects are to be a unified series of projects working toward portfolio development. Application of design principles.

**Prerequisite:** ART 181.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **ART 283 - Advanced Projects in Welded Sculpture**

**Description:** Emphasis on design and fabrication of metal sculpture to explore the potentials of the medium. Unified series of projects working toward portfolio development. Application of design principles.

**Prerequisite:** ART 183.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **ART 292 - Advanced Projects in Oil and Acrylic**

**Description:** Advanced projects in oil and acrylic painting. Review of techniques and materials. Application of design principles.

**Prerequisite:** ART 191.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **ART 293 - Advanced Projects in Watercolor**

**Description:** Advanced projects in watercolor painting. Review of techniques and materials. Application of design principles.

**Prerequisite:** ART 195.

**Credits:** 3

**Lecture:** 1

**Lab:** 5

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **ART 296 - Internship: Art**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ART 298 - Art Workshop**

**Description:** Exploration and application of media techniques.

**Credits:** 2

**Lecture:** 2

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **ART 299 - Independent Study Art**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **AUT 100 - Automotive/Diesel Preventative Maintenance**

**Description:** Fundamentals of truck equipment and automobile basic preventative maintenance procedures.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AUT 105 - Introduction to Auto Body Repair**

**Description:** Basic fabrication and primer application. Emphasis on nonstructural body repair, filling, sanding, primers, and spraying techniques.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 106 - Automotive/Motorcycle Custom Painting**

**Description:** Automotive paint finishing using professional techniques and equipment. Includes color selection, mixing, masking, sanding, spraying, maintaining a spray booth, and post-paint care.

**Prerequisite:**

AUT 105 (May be taken concurrently) OR  
AUT 107 (May be taken concurrently).

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **AUT 107 - Autographics/Airbrushing**

**Description:** Basic theory and fundamentals of automotive/motorcycle airbrushing.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **AUT 108 - Diesel Engine Repair Technology**

**Description:** Theory, diagnosis and service common to all diesel engines. Includes engine rebuilding and performance testing along with engine mechanical fuel systems and testing. Preparation for the ASE Certification test on Medium/Heavy Truck Diesel Engines and Light Duty Diesel Engines ASE Automotive Certification.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 109 - Auto/Diesel Electrical Systems**

**Description:** Electrical principles and diagnosis of diesel and automotive electrical systems. Includes repair of batteries, charging systems, starting systems, ignition systems and use of electrical testing instruments.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 110 - Advanced Airbrushing Techniques**

**Description:** Advanced airbrushing techniques including airbrushing with pearls, metal flakes, candies, transparents, and translucents. Special faux effects including portraits and real fire.

**Prerequisite:** AUT 107.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **AUT 111 - Auto Body Welding and Collision Repair**

**Description:** Removal, replacement, and repair of body panels, door skins, fender patch, rocker panels, floor components, mechanical components, and quarter panels. Includes structural damage repair.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **AUT 115 - Auto Body and Paint Project**

**Description:** Individual project in auto body repair and paint application. Incorporates planning and design, tool and material selection and project completion.

**Prerequisite:**

AUT 105 (may be taken concurrently) or

AUT 106 (may be taken concurrently).

**Credits:** 2

**Lab:** 4

## **AUT 122 - Automatic Transmissions and Transaxles**

**Description:** Theory, diagnosis and repair of selected GM, Ford and Chrysler automatic transmissions.

**Prerequisite:** AUT 109.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 123 - Automotive Brakes**

**Description:** General braking principles, terms, definitions, and other functions connected with the automobile braking system. Correct operation and use of brake servicing equipment for drum and disc brakes.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 124 - Auto/Diesel Manual Drive Trains**

**Description:** Theory, diagnosis, and service of clutches, driveline, synchromesh transmissions, final drives and manual shift transmissions. Preparation for the ASE Certification Test on A3 Manual Drive Trains and T3 Truck Drive Trains.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 126 - Auto/Diesel Suspension and Steering**

**Description:** Principles of suspension system geometry and steering systems operation. Adjustment, correction, repair and replacement components of system components.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 128 - Auto/Diesel Heating and Air Conditioning**

**Description:** Theory of heat transfer forms of matter, refrigeration cycle, and operating principles of automotive air conditioning systems. Fundamentals in testing, repairing, disassembling and assembling components of heating and air conditioning systems.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 135 - Diesel Braking Systems**

**Description:** Theory, diagnosis and repair of diesel air, hydraulic and anti-lock brake systems. Emphasis on tires and wheels, and hydraulic and air brake systems.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 153 - Auto Engine Repair**

**Description:** Theory of operation of gasoline powered engines. Includes engine servicing and engine removal and replacement procedures.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 208 - Advanced Diesel Engine Repair**

**Description:** Advanced block, crankshaft, bearing, and cylinder head and timing component diagnosis and repair.

**Prerequisite:** AUT 108.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 225 - Diesel Engine Performance**

**Description:** Principles of operation, diagnosis and repair of engine fuel and computer systems. Use of diagnostic oscilloscope and scan tools to repair malfunctioning fuel and computer systems.

**Prerequisite:** AUT 109.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 230 - Advanced Light/Medium Duty Diesel Diagnosis 1500-4500 Series**

**Description:** Theory of operation of current model diesel engine systems.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AUT 231 - Auto Engine Diagnostics**

**Description:** Principles of operation, diagnosis and repair of engine fuel and ignition systems. Use of diagnostic oscilloscope to repair malfunctioning fuel and ignition systems.

**Prerequisite:** AUT 109.

**Credits:** 5

**Lecture:** 3

**Lab:** 4

## **AUT 275 - Basic Automotive Upholstery**

**Description:** Introduction to automotive and motorcycle upholstery. Includes power sewing machines, tools, and new coverings for bucket, bench and motorcycle seats.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **AUT 276 - Advanced Upholstery**

**Description:** Advanced techniques in automotive and motorcycle upholstery. Includes headliners, carpeting, door panels, and other interior accessories.

**Prerequisite:** AUT 275

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AUT 295 - Apprenticeship: Diesel**

**Description:** Supervised field experience.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 12 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **AUT 296 - Internship: Automotive**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **AUT 299 - Independent Study Automotive**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **AVT 104 - Private Pilot Airplane Ground I**

**Description:** Fundamentals of aerodynamics, airplane operation and performance, and instruments.

**Prerequisite:**

~~Admission to the Private Pilot- Airplane program.??~~

**Credits:** 2

**Lecture:** 2

## **AVT 105 - Private Pilot Airplane Ground II**

**Description:** Fundamentals of navigation, human errors, Federal Aviation requirements, weather systems and hazards.

**Prerequisite:** AVT 104.

**Credits:** 2

**Lecture:** 2

## **AVT 109 - Private Pilot Helicopter Ground I**

**Description:** Fundamentals of aerodynamics, helicopter operation and performance, and instruments.

**Prerequisite:** Admission to Program.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AVT 110 - Private Pilot Helicopter Ground II**

**Description:** Fundamentals of navigation, human errors, Federal Aviation requirements, weather systems and hazards.

**Prerequisite:** Admission to the Private Pilot-Helicopter program and AVT 109.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AVT 113 - Private Pilot Helicopter Simulation**

**Description:** Introduction to helicopter flying and basic helicopter operations via simulation. Includes basic flight maneuvers, traffic patterns, departures, approaches, and emergency procedures in simulators.

**Credits:** 1

**Lab:** 3

## **AVT 115 - Instrument Pilot Airplane Ground**

**Description:** Instrument navigation, Instrument Flight Rule (IFR) traffic system procedures, dead reckoning, IFR Radio navigation, use of various instrumentation systems, IFR charts, weather reports and forecasts, transponders, radars, radio aids, anti-icing/deicing systems, preflight checks, aeronautical decision making.

**Prerequisite:**

AVT 105 and AVT 107 and AVT 117.

**Credits:** 4

**Lecture:** 4

## **AVT 116 - Instrument Pilot Airplane Flight**

**Description:** Flight by reference to instruments. Emphasis on instrument preflight, navigation, approach, emergency, and post-flight procedures. Includes the combination of a Federal Aviation Administration (FAA) approved flight-training device simulator and/or actual flight time in preparation for the FAA instrument pilot airplane oral and practical test. Student will complete 42 dual flight hours and 20 hours of Advanced Aircraft Training Device (AATD).

**Prerequisite:**

AVT 105 and AVT 107 and AVT 117.

**Credits:** 4

**Lab:** 12

## **AVT 117 - Private Pilot Flight Simulation**

**Description:** Introduction to flying and basic flight operations via simulation. Includes basic flight maneuvers, traffic patterns, departures, approaches, and emergency procedures in simulators.

**Prerequisite:**

Admission to program.

**Credits:** 1

**Lab:** 3

## **AVT 118 - Instrument Pilot Helicopter Simulation**

**Description:** Introduction to flight by reference to instruments. Emphasis on instrument navigation, approach and emergency procedures in the simulator.

**Prerequisite:** AVT 113 and (AVT 112A or AVT 112B ).

Co-requisite: AVT 121 .

**Credits:** 1

**Lab:** 3

## **AVT 120 - Instrument Pilot Helicopter Ground**

**Description:** Instrument navigation, Instrument Flight Rule (IFR) traffic system and procedures, dead reckoning, IFR Radio navigation, use of various instrumentation systems, IFR charts, weather reports and forecasts, transponders, radars, radio aids, anti-icing/deicing systems, preflight checks, aeronautical decision making.

**Prerequisite:**

AVT 110 and AVT 112A or AVT 112B and AVT 113.

**Credits:** 4

**Lecture:** 4

## **AVT 121 - Instrument Pilot Helicopter Flight**

**Description:** Flight by reference to instruments. Emphasis on instrument preflight, navigation, approach, emergency, and post-flight procedures. Includes the combination of a Federal Aviation Administration (FAA) approved flight-training device and actual flight time in preparation for FAA instrument pilot helicopter oral and practical test.

**Prerequisite:** AVT 120 (May be taken concurrently).

**Co-requisite:** AVT 118.

**Credits:** 4

**Lab:** 8

## **AVT 122 - Fundamentals of Air Traffic Control**

**Description:** Airport air traffic control history, navigation systems, system structure and control communication procedure and phraseology. Heavy emphasis place on preliminary terminology used in radio communication.

**Prerequisite:**

Admission to program.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **AVT 123 - Air Traffic Control Tower Procedures**

**Description:** Duties and responsibilities of each position in a typical Federal Aviation Administration (FAA) control tower. Includes Facility Letters of Agreements, Facility Standard Operating Procedures, and the duties and responsibilities of a Tower Controller as outlined in FAA orders.

**Prerequisite:**

AVT 122.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **AVT 124 - Fundamentals of Air Traffic Control Radar Operation**

**Description:** Theory and fundamentals of radar operation as it pertains to the National Airspace System, Oceanic and International Air Traffic Control, and the Federal Aviation Administration (FAA).

**Prerequisite:** AVT 122 and AVT 123.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **AVT 200 - Airport Operations and Design**

**Description:** Fundamentals of airport operations and design and the associated impact on management, passengers, and surrounding community.

**Prerequisite:**

Admission to program and MGT 220.

**Credits:** 3

**Lecture:** 3

## **AVT 201 - Aviation Management**

**Description:** Introduction to the principles of management as they apply to the aviation community including finance, marketing, fixed-based operators (FBOs), and human resource development.

**Prerequisite:**

Admission to program and MGT 220.

**Credits:** 3

**Lecture:** 3

## **AVT 204 - Commercial Pilot Airplane Ground I**

**Description:** Designed for students who are both private pilot and instrument flight rated for airplane flight and are seeking the commercial pilot rating. Includes advanced airplane components, advanced aerodynamics and advanced performance.

**Prerequisite:**

AVT 115 and AVT 116 and AVT 214.

**Credits:** 2

**Lecture:** 2

## **AVT 205 - Commercial Pilot Airplane Ground II**

**Description:** Designed for students who are both private pilot and instrument flight rated for airplane flight and are seeking the commercial pilot rating. Includes advanced airplane components, meteorology, cross country flight, and commercial Federal Aviation Administration (FAA) regulations.

**Prerequisite:**

AVT 115 and AVT 116 and AVT 204 and AVT 214.

**Credits:** 2

**Lecture:** 2

## **AVT 209 - Commercial Pilot Helicopter Ground I**

**Description:** Designed for students who are both private pilot and instrument flight rated for helicopter flight and are seeking the commercial pilot rating. Includes advanced helicopter components, advanced aerodynamics and advanced performance.

**Prerequisite:** AVT 121.

**Credits:** 2

**Lecture:** 2

## **AVT 210 - Commercial Pilot Helicopter Ground II**

**Description:** Designed for students who are both private pilot and instrument flight rated for helicopter flight and are seeking the commercial pilot rating. Includes advanced helicopter components, cross country flight, and commercial FAA regulations.

**Prerequisite:** AVT 209 (May be taken concurrently).

**Credits:** 2

**Lecture:** 2

## **AVT 211A - Commercial Pilot Helicopter Flight I - R22**

**Description:** Advanced helicopter flight operations and navigation, including mountain flying techniques. Preparation for Federal Aviation Administration commercial pilot oral and practical test.

**Prerequisite:**

AVT 209 (may be taken concurrently) and AVT 112A (may be taken concurrently).

**Credits:** 3

**Lab:** 6

## **AVT 211B - Commercial Pilot Helicopter Flight I - R44**

**Description:** Advanced helicopter flight operations and navigation, including mountain flying techniques. Preparation for Federal Aviation Administration commercial pilot oral and practical test.

**Prerequisite:**

AVT 209 (may be taken concurrently).

**Credits:** 3

**Lab:** 6

## **AVT 211C - Commercial Pilot Helicopter Flight I - Turbine**

**Description:** Advanced helicopter flight operations and navigation, including mountain flying techniques. Preparation for Federal Aviation Administration commercial pilot oral and practical test.

**Prerequisite:**

AVT 209 (may be taken concurrently).

**Credits:** 3

**Lab:** 6

## **AVT 212A - Commercial Pilot Helicopter Flight II - R22**

**Description:** Advanced helicopter flight operations and navigation, including mountain flying techniques. Preparation for Federal Aviation Administration commercial pilot oral and practical test.

**Prerequisite:** AVT 210 (may be taken concurrently) and AVT 211A (may be taken concurrently).

**Credits:** 3

**Lab:** 6

## **AVT 212B - Commercial Pilot Helicopter Flight II - R44**

**Description:** Advanced helicopter flight operations and navigation, including mountain flying techniques. Preparation for Federal Aviation Administration commercial pilot oral and practical test.

**Prerequisite:** AVT 211B (may be taken concurrently) and AVT 211B (may be taken concurrently).

**Credits:** 3

**Lab:** 6

## **AVT 212C - Commercial Pilot Helicopter Flight II - Turbine**

**Description:** Advanced helicopter flight operations and navigation, including mountain flying techniques. Preparation for Federal Aviation Administration commercial pilot oral and practical test.

**Prerequisite:** AVT 210 (may be taken concurrently) and AVT 211C (may be taken concurrently).

**APPROXIMATE FLIGHT HOURS:**

Dual Instruction: 32.8

Aviation Training Device: 0

Solo: 0

Pilot Briefing: 28

Examiner: 5

Simulations: 0

Check-Ride Flight Time: 2.2

Pre/Post Flight Inspection: 14

Cross-Country Planning: 8

Weather/NOTAMS: 11

**Credits:** 3

**Lab:** 6

## **AVT 214 - Instrument Pilot Flight Simulation**

**Description:** Introduction to flight by reference to instruments. Emphasis on instrument navigation, approach, and emergency procedures in the simulator. Includes preparation for FAA instrument pilot oral and practical test.

**Prerequisite:**

AVT 115 and AVT 116 and AVT 117.

**Credits:** 1

**Lab:** 3

## **AVT 215 - Flight Instructor Airplane Ground**

**Description:** Instructional strategies and planning, communications, student evaluation, the learning process and flight instructor responsibilities.

**Prerequisite:** AVT 205 and AVT 207 .

**Credits:** 2

**Lecture:** 2

## **AVT 216 - Flight Instructor Airplane Flight**

**Description:** Techniques for giving one-on-one instruction to airplane student pilots and critiquing student performance. Preparation for Federal Aviation Administration (FAA) flight instructor airplane oral and practical examinations. Student will complete 25 dual flight hours.

**Prerequisite:** AVT 205 and AVT 207 .

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AVT 217 - Commercial Pilot Airplane Flight I**

**Description:** First phase of Commercial Pilot training required for the issuance of a Commercial Pilot License Multiengine Land Initial. Topics include advanced airplane flight operations and navigation including mountain flying techniques. Completion of a series of solo cross country flights in the Cessna 172 as well as simulation to enhance instrument skills..

**Prerequisite:** AVT 115 and AVT 116 and AVT 214

**Co-requisite:** AVT 204

**Credits:** 6

**Lecture:** 2.5

**Lab:** 11.5

## **AVT 218 - Commercial Pilot Airplane Flight II**

**Description:** Second phase of Commercial Pilot training including multi engine flight operations and navigation in normal and emergency operation and mountain flying techniques. Testing for commercial pilot license, multiengine land initial, and commercial pilot single engine ratings. All training done in Cessna 310.

**Prerequisite:** AVT 204 and AVT 217

**Co-requisite:** AVT 205

**Credits:** 6

**Lecture:** 2.5

**Lab:** 11.5

## **AVT 220 - Flight Instructor Helicopter Ground**

**Description:** Instructional strategies and planning, communications, student evaluation, the learning process and flight instructor responsibilities.

**Prerequisite:** (AVT 212A or AVT 212B or AVT 212C ) and AVT 260.

**Credits:** 2

**Lecture:** 2

## **AVT 221A - Flight Instructor Helicopter Flight - R22**

**Description:** Techniques for giving one-on-one instruction to helicopter student pilots and critiquing student performance. Preparation for Federal Aviation Administration flight instructor helicopter oral and practical test.

**Prerequisite:** AVT 212A and AVT 220 (May be taken concurrently).

### **APPROXIMATE FLIGHT HOURS:**

Dual Instruction: 27.8

Aviation Training Device: 0

Solo:0

Pilot Briefing: 30

Examiner: 7

Simulations: 0

Check-Ride Flight Time: 2.2

Pre/Post Flight Inspection: 10

Cross-Country Planning: 6

Weather/NOTAMS: 9

**Credits:** 3

**Lab:** 6

## **AVT 221C - Flight Instructor Helicopter Flight - Turbine**

**Description:** Techniques for giving one-on-one instruction to helicopter student pilots and critiquing student performance. Preparation for Federal Aviation Administration flight instructor helicopter oral and practical test.

**Prerequisite:** AVT 220 (may be taken concurrently) and AVT 212A or AVT 212B or AVT 212C.

**Credits:** 3

**Lab:** 6

## **AVT 225 - Flight Instructor Instrument Airplane Ground**

**Description:** Instrument pilot teaching techniques utilizing Instrument Flight Rules (IFR) regulatory guidelines. Preparation to take the Federal Aviation Administration (FAA) flight instrument instructor written test and a portion of the oral and practical exam.

**Prerequisite:** AVT 205 and AVT 207.

**Credits:** 2

**Lecture:** 2

## **AVT 226 - Flight Instructor Instrument Airplane Flight**

**Description:** Teaching flying in clouds and poor weather solely by reference to aircraft instruments. Includes teaching in a flight-training device (simulator). Preparation for Federal Aviation Administration (FAA) flight instructor instrument airplane oral and practical test. Student will complete 15 dual flight hours and 15 hours of Advanced Aircraft Training Device (AATD).

**Prerequisite:** AVT 205 and AVT 207.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **AVT 227 - Air Traffic Control Test Prep**

**Description:** Preparation for taking the AT-SAT and CTO entrance examinations to the Federal Aviation Administration (FAA) Air Traffic Control Academy in Oklahoma.

**Prerequisite:** AVT 127.

**Credits:** 1

**Lecture:** 1

## **AVT 230 - Flight Instructor Instrument Helicopter Ground**

**Description:** Instrument pilot teaching techniques utilizing Instrument Flight Rules (IFR) regulatory guidelines. Preparation to take the Federal Aviation Administration flight instructor instrument helicopter written test and a portion of the oral and practical exam.

**Prerequisite:** Prerequisite: AVT 221A or AVT 221B or AVT 221C.

**Credits:** 2

**Lecture:** 2

## **AVT 231 - Flight Instructor Instrument Helicopter Flight**

**Description:** Teaching flying in clouds and poor weather solely by reference to aircraft instruments. Includes teaching in a flight-training device (simulator). Preparation for Federal Aviation Administration flight instructor instrument helicopter oral and practical test.

**Prerequisite:** AVT 230 (May be taken concurrently).

### **APPROXIMATE FLIGHT HOURS:**

Dual Instruction: 8.8

Aviation Training Device: 1

Solo: 0

Pilot Briefing: 18

Examiner: 5

Simulations: 1

Check-Ride Flight Time: 2.2

Pre/Post Flight Inspection: 3

Cross-Country Planning: 5

Weather/NOTAMS: 4

**Credits:** 2

**Lab:** 4

## **AVT 236 - Aircraft Preventative Maintenance**

**Description:** Basic airplane and helicopter maintenance theory, documentation, and standard industry practices to return an aircraft or helicopter to service in accordance with Federal Aviation Administration (FAA) standards. Emphasis on maintenance tasks that pilots are authorized to perform on airplanes and helicopters.

**Credits:** 1

**Lecture:** .5

**Lab:** 1.5

## **AVT 247 - Flight Service Specialist**

**Description:** Advanced skill sets needed for employment as a Flight Service Specialist. Proficiencies include providing information to pilots such as weather, hazardous phenomena, and NOTAMS ("Notice to Airmen"). Additional skills comprise situational awareness of weather, processing flight plans, initiating search and rescue, communications techniques, and handling emergency situations.

**Prerequisite:** GEO 212.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **AVT 248 - Air Traffic Control Enroute Operations**

**Description:** Designed to simulate Air Route Traffic Control Center (ARTCC) at an Enroute Radar Control Facility. Includes applicable Letters of Agreement (LOAs), Standard Operating Procedures (SOPs), facility orders, facility procedures, airspace dimensions, and other material that a developmental controller is required to know in order to start on-the-job training at an ARTCC facility.

**Prerequisite:** AVT 122 , AVT 123, AVT 124 (AVT 124 may be taken concurrently)

**Credits:** 3

**Lecture:** 3

## **AVT 260 - Fundamentals of Instruction**

**Description:** Instructional strategies and planning, communications, student evaluation, the learning process and instructor responsibilities.

**Prerequisite:** AVT 105 or AVT 110.

**Credits:** 1

**Lecture:** 1

## **AVT 261 - Advanced Aviation Meteorology**

**Description:** Advanced weather and forecasting with application to flight. Includes detailed applications of meteorological functions as applied to aviation. Jet streams, air masses, fronts, thunderstorms and their effects on aviation. Advanced weather observations, prediction and charting applications.

**Prerequisite:** Admission to program and GEO 212.

**Credits:** 4

**Lecture:** 4

## **AVT 290 - Commercial/Instrument Pilot Airplane Flight Transition**

**Description:** Advanced Airplane flight operations and navigation including mountain flying techniques for students who are crossing over from helicopter and have obtained a commercial helicopter rating. Preparation for Federal Aviation Administration commercial pilot oral and practical test.

**Prerequisite:** AVT 210 and AVT 212.

**Credits:** 6

**Lecture:** 2.5

**Lab:** 11.5

## **AVT 299 - Independent Study Aviation**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **BIO 100 - Biology Concepts**

**Description:** Basic principles and concepts of biology. Methods of scientific inquiry, energetics and metabolism, genetics, evolution and natural selection. Not for majors in the biological or preprofessional sciences. Duplicate credit for BIO 100 and BIO 156 will not be awarded.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **BIO 103 - Plant Biology**

**Description:** Introduction to the growth, development, reproduction, and structure of vascular plants. Fundamental activities of plants including photosynthesis and respiration. Emphasis on agricultural and horticultural crops of Arizona. This course is cross-listed with AGS 103.

**Prerequisite:** Reading Proficiency

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **BIO 105 - Environmental Biology**

**Description:** Introduction to ecological systems, natural resources, and applications to environmental issues. Includes population, community, and ecosystem analysis. Emphasis on field, laboratory, and writing activities. This course is cross-listed with ENV 105.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **BIO 156 - Human Biology for Allied Health**

**Description:** An introductory biology course for allied health majors with an emphasis on humans. Topics include fundamental concepts of cell history, histology, microbiology, and genetics. Duplicate credit for BIO 100 and BIO 156 will not be awarded.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **BIO 160 - Introduction to Human Anatomy and Physiology**

**Description:** Principles of scientific method. Structural organization, homeostasis and control mechanisms of the body. Specific chemistry concepts. Structure and function of the major systems of the body. This course is cross-listed with AHS 160.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **BIO 181 - General Biology I**

BIO 1181.

**Description:** Biological principles emphasizing structure and function at the molecular, cellular, and organismal levels of biological systems. Secondary school chemistry strongly recommended. Primarily for biology majors and preprofessional students in health-related fields.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# BIO 1181

## **BIO 182 - General Biology II**

BIO 1182.

**Description:** Principles of plant and animal structure, function, and diversity; evolution, and ecology of populations and communities emphasizing biotic interactions. Primarily designed for biology and pre-professional majors.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# BIO 1182

## **BIO 186 - Paleobiology: A History of Life**

**Description:** The biological history of life on Earth and its evolutionary development detailed in the fossil record. Includes field techniques, museum storage and preparation protocols, and types of research used to analyze fossils.

**Prerequisite:** Reading Proficiency

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **BIO 196 - Directed Research: Biology**

**Description:** Faculty or mentor directed student research in an area of current scientific investigation culminating in a final report, paper, or presentation. Students will work in the lab or in the field to gain the intellectual, technical, and practical skills necessary to further the knowledge base in an area of scientific investigation with the objective of contributing to the professional body of scientific knowledge.

**Credits:** 1-3

## **BIO 201 - Human Anatomy and Physiology I**

BIO 2201.

**Description:** Structure and function of the human body. Topics include cells, tissues, integumentary, muscular, skeletal, and nervous systems.

**Prerequisite:** BIO 156 or BIO 181. Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# BIO 2201

## **BIO 202 - Human Anatomy and Physiology II**

BIO 2202.

**Description:** Structure and function of the human body. Topics include reproductive, endocrine, circulatory, respiratory, urinary, and digestive systems.

**Prerequisite:** BIO 201.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# BIO 2202

## **BIO 205 - Microbiology**

BIO 2205.

**Description:** Introduction to microorganisms and viruses of medical importance. Chemical and physical methods of microbial control; bacterial, fungal, protozoal, and viral drug therapy; the immune system response to infection; transmission of human disease; and common clinical presentation of various diseases.

**Prerequisite:** BIO 100 or BIO 156 or BIO 181. Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# BIO 2205

## **BIO 296 - Internship: Biology**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **BIO 299 - Independent Study Biology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace**

**Description:** Techniques to enhance and emphasize the relationship between resume development and job search skills. Includes a strong focus on human relations in the workplace.

**Credits:** 1

**Lecture:** 1

## **BSA 110 - Personal Finance**

**Description:** Information for making personal and family financial decisions. Includes budgeting, saving, credit, installment buying, insurance, buying vs. renting a home, investment, and estate disposal through will and trust.

**Credits:** 3

**Lecture:** 3

## **BSA 118 - Practical Creative Thinking and Problem Solving**

**Description:** Fundamentals of the problemsolving process. Includes techniques to identify and define the core problem or issue, and to generate, implement and evaluate solutions.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **BSA 130 - Business Financial Applications**

**Description:** Foundation and experience in evaluating inventory, preparing financial statements, determining taxes, reconciling bank statements, preparing payroll and solving other financial problems necessary in business fields, including administrative management, accounting, office administration, and finance.

**Credits:** 3

**Lecture:** 3

## **BSA 131 - Introduction to Business**

**Description:** Characteristics and activities of current local, regional, and global business. An overview of economics, finance, marketing, human resource management and careers in business.

**Credits:** 3

**Lecture:** 3

## **BSA 221 - Entrepreneurship**

**Description:** Introduction to economic, social and human factors necessary to opening and operating a business. Emphasis on writing and analyzing business plans, developing marketing strategies and raising capital to start a new business.

**Credits:** 3

**Lecture:** 3

## **BSA 225 - Administrative Professional: Office Management**

**Description:** Office management including management of administrative office resources, supervision and staffing issues, and filing and records management practice. Cross-listed with CSA 225.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **BSA 237 - Legal Environment of Business**

**Description:** Examination of legal framework governing rules of conduct among businesses and impact on establishing business policy.

**Credits:** 3

**Lecture:** 3

## **BSA 296 - Internship: Business Administration**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **BSA 299 - Independent Study Business**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **CPD 104 - Career and Personal Development**

**Description:** Career/life planning through self-awareness and understanding. Focus is on dealing with change, decision making, goal setting and understanding lifestyles as well as evaluating interests, skills and values. Emphasis on the development of a comprehensive career search process including current occupational information, specific tools for researching the job market and acquiring employment.

**Credits:** 3

**Lecture:** 3

## **CHM 130 - Fundamental Chemistry**

### **CHM 1130.**

**Description:** Introduction to the study of chemistry as a basis for understanding our complicated world. Overview of classification, structure, and chemical behavior, including inorganic, organic, and biological materials.

**Prerequisite:** MAT 092 or one year of high school algebra or satisfactory score on mathematics skills assessment. Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# CHM 1130

## **CHM 138 - Chemistry for Allied Health**

**Description:** Elements of general, organic and biochemistry. A study of the chemical behavior of matter for Nursing and allied health applications.

**Prerequisite:** MAT 092 OR MAT 097 OR MAT 142 OR MAT 152. Reading Proficiency.

**Credits:** 5

**Lecture:** 4

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **CHM 151 - General Chemistry I**

### **CHM 1151.**

**Description:** Exploration of chemical measurement, classification, stoichiometry, and structure/function relationships for inorganic, organic and biological materials. Chemical principles are presented at a level appropriate for science majors and pre-professional students.

**Prerequisite:** MAT 097 or higher or two years of high school algebra. Reading Proficiency.

**Credits:** 5

**Lecture:** 4

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# CHM 1151

## **CHM 152 - General Chemistry II**

### **CHM 1152.**

**Description:** Advanced topics in general chemistry including chemical kinetics, equilibrium, acid-base, and electrochemistry. Chemical principles are presented at a level appropriate for science majors and pre-professional students,

**Prerequisite:** CHM 151. Reading Proficiency.

**Credits:** 5

**Lecture:** 4

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# CHM 1152

## **CHM 196 - Directed Research: Chemistry**

**Description:** Faculty or mentor directed student research in an area of current scientific investigation culminating in a final report, paper, or presentation. Students will work in the lab or in the field to gain the intellectual, technical, and practical skills necessary to further the knowledge base in an area of scientific investigation with the objective of contributing to the professional body of scientific knowledge.

**Credits:** 1-3

## **CHM 235 - General Organic Chemistry I**

### **CHM 2235.**

**Description:** Chemistry of organic compounds with emphasis on reaction mechanisms, stereo-chemistry, and structure. Chemical principles are presented at a level appropriate for science majors, and pre-professional students. Concurrent registration in CHM 235L recommended.

**Prerequisite:** CHM 151. Reading Proficiency.

**Credits:** 4

**Lecture:** 4

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# CHM 2235

## **CHM 235L - General Organic Chemistry I Lab**

### **CHM 2235.**

**Description:** Laboratory techniques and practice with emphasis on separations, purification, synthesis and spectroscopic identification of organic structures. For science majors and pre-professional students.

**Prerequisite:** CHM 235 (may be taken concurrently). Reading Proficiency.

**Credits:** 1

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# CHM 2235

## **CHM 236 - General Organic Chemistry II**

### **CHM 2236.**

**Description:** Advanced topics in organic chemistry including the synthesis and reactions of aromatic and carbonyl compounds. Chemical principles are presented at a level appropriate for science majors and pre-professional students. Concurrent registration in CHM 236L recommended.

**Prerequisite:** CHM 235.

**Credits:** 4

**Lecture:** 4

**Course Attributes:** SUN# CHM 2236

## **CHM 236L - General Organic Chemistry II Lab**

### **CHM 2236.**

**Description:** Additional techniques in organic chemistry; preparation, separation and identification of organic compounds.

**Prerequisite:** CHM 236 (may be taken concurrently) and CHM 235L.

**Credits:** 1

**Lab:** 3

**Course Attributes:** SUN# CHM 2236

## **CHM 296 - Internship: Chemistry**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **CHM 299 - Independent Study Chemistry**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **CHP 190 - Honors Colloquium**

**Description:** Critical thinking topics for College Honors Program participants.

**Prerequisite:** Admission to the College Honors Program. Reading Proficiency.

**Credits:** 1

**Lecture:** 1

**Lab:** 1

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

**Course Attributes:** Critical Thinking (AGEC)

## **CHP 296 - Internship: College Honors**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **CHP 299 - Independent Study College Honors**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **CDT 250 - Commercial License Prep**

**Description:** Basics of operating commercial vehicles and acquiring a commercial driver's license. Utility trucks, trailers, and tractor/trailer rig provided during class. Students will learn skills and knowledge needed to test for CDL Class A Instruction Permit, and take a Class A Driving test. Must be at least 18 years of age, have a valid Driver's License (held for at least one year), pass a state-approved physical exam, and show proof of legal presence in the U.S. Students wishing to drive across state lines must be 21 years of age or older.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **COM 100 - Introduction to Human Communication**

### **COM 1100.**

**Description:** Introduction to the essential elements of human communication and behavior, with emphasis on intrapersonal, interpersonal, group, public communication, and oral communication skills important to personal and professional settings.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Comm., YC Communication Requirement, SUN# COM 1100

## **COM 131 - Fundamentals of Speech Communication**

**Description:** Study of the essential elements of oral communication, with major emphasis on public speaking. Includes use of multimedia technologies for presentations.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Comm., YC Communication Requirement

## **COM 134 - Interpersonal Communication**

### **COM 1110.**

**Description:** Build healthy personal and professional relationships. Includes listening, coping with criticism, resolving conflicts, managing emotions, nonverbal communication, and developing empathy for gender and cultural differences.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Comm., YC Communication Requirement, SUN# COM 1110

## **COM 135 - Workplace Communication Skills**

**Description:** Oral and written workplace communication skills. Application of individual and group communication strategies to secure and maintain employment.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Comm.

## **COM 200 - Communication Theory**

**Description:** Introduction to the systematic conceptualization of the communication process: its elements, dynamics, origins, outcomes, functions, and values. Emphasis on psychological, social cultural, mediated, ethical, and political implications of communication processes. Includes prominent communication theories relating to relationships, groups, organizations, ethnicity, race, and gender.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Comm., YC Communication Requirement

## **COM 217 - Introduction to Argumentation and Debate**

**Description:** Basic concepts and theories of argumentation. Emphasis on basic argumentation skills and their application to a variety of communication environments.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **COM 271 - Small Group Communication**

### **COM 2271.**

**Description:** Examination of the principles and processes of group communication as a vehicle for solving problems, reaching decisions and making recommendations. Students will study and practice the theories, behaviors and processes of group communication.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Comm., YC Communication Requirement, SUN# COM 2271

## **COM 296 - Internship: Communication**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **COM 299 - Independent Study Communication**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **CNT 100 - Computer Networking Technologies I**

**Description:** Introduction to technologies, terminology, and skills used in the world of computer networking. Discussion of network hardware devices, network topologies, network media and network protocols and standards.

**Credits:** 3

**Lecture:** 3

**Lab:** 1

## **CNT 105 - Cybersecurity Principles**

**Description:** Foundation knowledge and essentials skills in all security domains in the cyber world - information security, systems security, network security, mobile security, physical security, ethics and laws, related technologies, defense and mitigation techniques used in protecting businesses.

**Prerequisite:** CNT 100 (may be taken concurrently)

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CNT 110 - A+ Computer Technician Certification**

**Description:** Install, configure, support, and troubleshoot personal computers. Emphasis on personal computer hardware and software, operating systems, networking, mobile devices, and security. Preparation for the Comp TIA A+ Certification exam.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **CNT 115 - Computer Networking Technologies II**

**Description:** Examination of a broad range of networking technologies. Topics include network standards, IP addressing and subnetting, advanced network hardware concepts, operating systems, network management, wide area networks, and cybersecurity

**Prerequisite:** CNT 100.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## CNT 120 - Introduction to Windows Server

**Description:** Introduction to the Windows Server line of network operating systems. Topics include installation, file systems, networking, directory services, file and printer sharing, and security. Extensive hands-on exercises with realistic scenarios to help students apply new concepts and sharpen problem-solving skills.

**Prerequisite:** CNT 100 or CNT 110 or CNT 115.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## CNT 121 - Windows Client Operating System

**Description:** A thorough examination of the Microsoft Windows client operating system. Installation, management, and support of the Windows client operating systems in a network environment. Includes advanced topics such as disk management, secure network configuration, disaster recovery, and performance tuning. Preparation for the Microsoft Windows MCTS certification exam. Syllabus available.

**Prerequisite:** CNT 100 or CNT 115 or CNT 120.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## CNT 122 - Windows Server I

**Description:** Configuration of a Windows Server operating system. Topics include Active Directory services, group policy, DNS, and certificate services. Preparation for the Windows Server MCTS certification exam.

**Prerequisite:** CNT 120.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## CNT 123 - Windows Server II

**Description:** Administration of a Windows Server environment. Topics include server deployment, network services, and Active Directory management. Preparation for the Microsoft Administering Windows Server 2012 (70-411) certification exam.

**Prerequisite:** CNT 122.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 130 - Linux+: Linux Operating System Certification**

**Description:** Installation, management, and support of the Linux operating system. Advanced topics including disk management, configuration of network services, and security. Prepares students for the CompTIA Linux+ certification requirements.

**Prerequisite:** CNT 115 or CNT 120 or CNT 121.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **CNT 135 - Security+: Implementing and Maintaining Network Security**

**Description:** Network security concepts, communication security, network infrastructure security, basics of cryptography and operational/organizational security. Emphasis on network authentication and authorization, securing network devices and services, virus remedies, preventing network attacks, and securing remote access. Prepares students for the CompTIA Security+ certification.

**Prerequisite:** CNT 115 or CNT 140.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 140 - Cisco Routing and Switching I**

**Description:** Introduction to computer networking standards and operation. Includes network topologies, network protocols and communications, network addressing, basic network design, security, and troubleshooting. First of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

**Prerequisite:** CNT 115

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **CNT 150 - Cisco Routing and Switching II**

**Description:** Network routing and switching concepts and configuration. Includes static and dynamic routing, switch and VLAN configuration, router and switch security, and device management and maintenance. Second of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

**Prerequisite:** CNT 140

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## CNT 155 - Wireless Networking Fundamentals

**Description:** Wireless networking technologies, wireless security, and wireless LAN design best practices. Emphasis on hands-on skills. Helps prepare students for industry wireless certifications.

**Prerequisite:** CNT 115 or CNT 120 or CNT 140.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## CNT 160 - Cisco Routing and Switching III

**Description:** Network routing and switching design and configuration in a medium to large network. Includes configuration and troubleshooting of dynamic routing protocols, and advanced switch and VLAN configuration. Third of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

**Prerequisite:** CNT 150.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## CNT 170 - Cisco Routing and Switching IV

**Description:** Discussion of WAN technologies, VPNs, serial and broadband connections, network troubleshooting and network architectures. Fourth of four courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

**Prerequisite:** CNT 160.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## CNT 180 - Web Site Implementation and Management

**Description:** Initiation and organization of a Web site with a Web hosting provider. Emphasis on Web site administrative tasks such as folder and file organization, E-mail and FTP account management, and security settings using an industry standard Web site control panel. Includes installation of Web add-on applications and scripts and monitoring of Web site traffic statistics. This course is cross-listed with WEB 180.

**Credits:** 3

**Lecture:** 3

## **CNT 185 - IT Project Management**

**Description:** Concepts and techniques of information technology project management. Includes project definition, tools and techniques as well as an introduction to project lifecycle, phases, and process groups.

**Prerequisite:** CNT 122 or CNT 150.

**Credits:** 2

**Lecture:** 2

## **CNT 190 - Programming and Scripting for Network Admins**

**Description:** Structured programming and scripting introduction with emphasis on application to network and server administration. Topics include algorithms, problem solving, Boolean logic, variables, control structures, and secure coding concepts. Python and PowerShell languages are covered.

**Prerequisite:** CNT 100

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 220 - Windows Server III**

**Description:** Configuring advanced Windows Server services. Emphasis on high availability, disaster recovery, and Active Directory infrastructure. Preparation for the Microsoft Configuring Advanced Windows Server 2012 Services (70-412) certification exam.

**Prerequisite:** CNT 123.

**Credits:** 3

**Lecture:** 3

## **CNT 250 - CCNA Security**

**Description:** Advanced course on installation, configuration and operation of network security on Cisco routers and firewalls: AAA, access control, intrusion detection, NAT, and VPNs.

**Prerequisite:** CNT 150

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 294 - CNT Project**

**Description:** Incorporation of project design, project system analysis, and technology applications.

**Credits:** 2

**Lecture:** 2

## **CNT 296 - Internship: Computer Networking Technology**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree or certificate requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **CNC 101 - CNC Machine Operator**

**Description:** Basic principles and operative skills in the operation of CNC milling machine and lathes.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **CNC 102 - CNC Machine Setup**

**Description:** Basic principles and operative skills to setup and operate through 1st. article part CNC mills and lathes.

**Prerequisite:** CNC 101.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **CNC 201 - Computer Aided Programming for CNC Machining**

**Description:** Two-dimensional designing of machinery parts using Feature Cam software. Includes design and illustration of the part, tooling sequencing, starting a lathe using Feature Cam, part cutting simulation, and Numerical Control Code.

**Prerequisite:** CNC 101 (may be taken concurrently).

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **CNC 202 - 3-D Programming and Rapid Prototyping for CNC**

**Description:** Basic principles of 3-D programming and rapid prototyping for modern manufacturing applications.

**Prerequisite:** CNC 201.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **CRW 139 - Introduction to Creative Writing**

**Description:** Techniques in writing, evaluating, and critiquing poetry, fiction and creative non-fiction.

**Prerequisite:** Reading Proficiency. Includes writing a documented analysis.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Writing

## **CRW 140 - Short Story Writing**

**Description:** Beginning techniques used in writing fiction, focusing on the short story.

**Credits:** 3

**Lecture:** 3

## **CRW 141 - Introduction to Poetry Writing**

**Description:** Beginning techniques used for writing poetry.

**Credits:** 3

**Lecture:** 3

## **CRW 142 - Creative Nonfiction Writing**

**Description:** Techniques in writing creative nonfiction, focusing on the personal essay and memoir.

**Credits:** 3

**Lecture:** 3

## **CRW 143 - Memoir Writing**

**Description:** Memoir writing, focusing on prewriting, analysis, evaluation, and revision of memoir.

**Credits:** 3

**Lecture:** 3

## **CRW 198 - Creative Writing Workshop:**

**Description:** Exploration of a creative writing component.

**Credits:** 1

**Lecture:** 1

**Repeatable:** [Repeatable for a total of 2 credit hours towards degree/certificate requirements.]

## **CRW 249 - Topics in Creative Writing:**

**Description:** Analysis, writing, and revision of element within fiction, poetry, or creative nonfiction.

**Credits:** 3

**Lecture:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **CRW 250 - Advanced Creative Writing: Poetry**

**Description:** Advanced techniques used for writing poetry.

**Prerequisite:** CRW 139 or CRW 141.

**Credits:** 3

**Lecture:** 3

## **CRW 251 - Advanced Creative Writing: Creative Non-Fiction**

**Description:** Advanced techniques in writing creative nonfiction, with emphasis on personal essay and memoir.

**Prerequisite:** CRW 139 or CRW 142 or CRW 143.

**Credits:** 3

**Lecture:** 3

## **CRW 252 - Advanced Creative Writing: Fiction**

**Description:** Advanced techniques used in writing fiction with emphasis on the short story.

**Prerequisite:** CRW 139 or CRW 140 or CRW 255.

**Credits:** 3

**Lecture:** 3

## **CRW 295 - Writers Workshop:**

**Description:** Intensive study and application of effective strategies used by selected authors in various genres to promote, explore, raise questions about, or provide insight into specified themes.

**Credits:** 3

**Lecture:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **CSC 105 - Introduction to Programming**

**Description:** Introduction to modern computer science including programming languages, structured and object oriented design and logic tools.

**Credits:** 3

**Lecture:** 3

## **CSC 113 - Programming: Python**

**Description:** Introduction to Python, a multi-paradigm object-oriented interpreted language, used for countless standalone projects or scripting applications.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSC 120 - Survey of Operating Systems**

**Description:** A survey of the operating systems used today with the purpose of preparing technicians to install and maintain operating systems.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSC 125 - Programming: C# Fundamentals**

**Description:** Introduction to C# language. Includes Visual Studio, form applications, debugging programs, object oriented programming, and database programming.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSC 205 - Programming: JavaScript, HTML & CSS**

**Description:** Fundamentals of web page and website creation using basic JavaScript, HTML5 and CSS3 features. Cross-listed with WEB 205.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSC 211 - Programming: PHP and MySQL**

**Description:** Principles and techniques of developing small to medium scale database applications, and creating web databases that are accessed by Web pages.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSC 220 - Programming: Java**

**Description:** Exploration of programming concepts of problem solving in the Java language. Simple data types, control structures, classes, methods, parameters, arrays and using them to write computer programming solutions to problems.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSA 100 - Getting to Know Your PC**

**Description:** Concepts and techniques for inexperienced or first time users of personal computers. Basic introduction to the fundamentals of: Windows Operating System, word processing, Internet, email functions, and Yavapai College's Learning Management System (LMS) in preparation for other college level courses.

**Credits:** 1

**Lab:** 3

## **CSA 101 - Windows Essentials**

**Description:** Introduction to Microsoft Windows. Emphasis on personal computer operations, accessing and storing of information, and desktop management.

**Credits:** 1

**Lab:** 3

## **CSA 102 - Fundamentals of Personal Computing**

**Description:** Introduction to computer software applications and basics of computer hardware. Includes computer related vocabulary and computer operations.

**Credits:** 1

**Lab:** 3

## **CSA 104 - Internet Essentials**

**Description:** Introduction to the world of the Internet. Includes surfing the World Wide Web, using e-mail, search engine and downloading files. This course is cross-listed with WEB 104.

**Credits:** 1

**Lab:** 3

## **CSA 110 - Introduction to Computer Information Systems**

**CIS 1120.**

**Description:** Business information systems from a business intelligence perspective. Includes the uses of application software with emphasis on database and spreadsheet packages for efficient and effective problem solving.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: SUN# CIS 1120

## **CSA 111 - Keyboarding**

**Description:** Presentation of the keyboard including the 10-key pad by touch. Development of correct techniques for a variety of applications including word processing, computer programming, data entry, and computer interaction.

**Credits:** 1

**Lecture:** 1

## **CSA 112 - Keyboarding Skill Building**

**Description:** Improving keyboarding speed and accuracy. Emphasis on techniques and strategies for job-related keyboarding proficiency.

**Prerequisite:** CSA 111.

**Credits:** 1

**Lecture:** 1

## **CSA 115 - Ten-Key Mastery on the Computer**

**Description:** Touch system of numeric keys on ten-key pads with speed and accuracy using industry standards for data entry.

**Credits:** 1

**Lab:** 3

## **CSA 124 - Creating Dynamic Forms**

**Description:** Practical application of Adobe Acrobat and other form production software. Emphasis on creating attractive forms that are interactive and dynamic for distribution as .pdf documents and/or use in web pages.

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## **CSA 126 - Microsoft Office for Windows**

**Description:** Introductory concepts and techniques of Microsoft Office including Word, Excel, Access, and PowerPoint.

**Credits:** 3

**Lecture:** 3

## **CSA 133 - Microsoft Publisher**

**Description:** Practical applications on the functions of Microsoft Publisher using the Windows Operating System. Design and production of professional quality documents that incorporate text, graphics and illustrations. Emphasis on newsletters, brochures, flyers, logos, catalogs and forms.

**Credits:** 2

**Lecture:** 2

## **CSA 134 - Microsoft Word Desktop Publishing**

**Description:** Desktop Publishing using advanced features in Microsoft Word within the Windows Operating System to plan, define, and incorporate desktop publishing concepts and the design and creation of business and personal documents.

**Prerequisite:** CSA 140.

**Credits:** 2

**Lecture:** 2

## **CSA 138 - Microsoft Excel**

**Description:** Practical application on the basic functions of Microsoft Office Excel using the Windows Operating System. Emphasis on creating worksheets for data input and analysis.

**Credits:** 2

**Lecture:** 2

## **CSA 139 - Microsoft Access**

**Description:** Practical application of Microsoft Access using the Windows Operating System. Emphasis on relational databases and query design to summarize and analyze information.

**Credits:** 2

**Lecture:** 2

## **CSA 140 - Microsoft Word**

**Description:** Practical application of Microsoft Office Word using the Windows Operating System.

**Credits:** 2

**Lecture:** 2

## **CSA 142 - Microsoft PowerPoint**

**Description:** Practical application of Microsoft PowerPoint using the Windows Operating System.

**Credits:** 2

**Lecture:** 2

## **CSA 144 - Creating Web Pages Using Dreamweaver**

**Description:** Creation of website using Dreamweaver software. Emphasis on creating, publishing to the web and maintaining website. This is crosslisted with WEB 144.

**Credits:** 3

**Lecture:** 3

## **CSA 149 - Second Life Virtual World**

**Description:** Introduction to the educational use in the virtual 3D world of Second Life. Basic skills, basic building, overall navigation, communication, and educational relationships within the virtual environment known as Second Life.

**Credits:** 3

**Lecture:** 3

## **CSA 170 - PC Architecture**

**Description:** Introduction to hardware components of a microcomputer. Emphasis on equipment comparisons, hardware requirements, and operating systems.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CSA 172 - Microsoft Windows**

**Description:** Personal computer operations using the Microsoft Windows operating environment. Customizing, optimizing and maintenance of desktops, folders, and documents.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **CSA 201 - Software Maintenance and Troubleshooting**

**Description:** Develop and deploy solutions to software issues, fix performance problems in the Operating System, and engage in perfective maintenance on software. Modify the software system or components to correct faults, improve performance or other attributes to adapt to changing software environments.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CSA 225 - Administrative Professional: Office Management**

**Description:** Office management including management of administrative office resources, supervision and staffing issues, and filing and records management practice. Cross-listed with BSA 225.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSA 266 - Building Web Applications in ASP.NET (C#)**

**Description:** Introduction to building robust web applications in ASP.NET using C# and Visual Studio. Promotes coding patterns and forward-looking best practices such as "SOLID" principles to better prepare the student for a future in ASP.NET MVC 5 and beyond. Highlights include application planning, development, debugging, database abstraction, security practice, and deployment. Also features extra content such as source control and unit testing.

**Prerequisite:** CSC 105.

**Credits:** 3

**Lecture:** 3

## **CSA 281 - Systems Analysis and Design**

**Description:** Advanced analysis, design, and development of an information system. Emphasis on users' needs, available equipment, manpower and financial feasibility. Problem analysis and solution design using a combination of tools and techniques.

**Prerequisite:** CSA 110 and CSC 105.

**Credits:** 3

**Lecture:** 3

## **CSA 282 - Database Concepts**

**Description:** Concepts, design, implementation, evaluation, and maintenance techniques of databases. Includes fundamentals of data model, data structure and data management.

**Credits:** 3

**Lecture:** 3

## **CSA 294 - CSA Project**

**Description:** This Capstone course incorporates project design, project system analysis, and technology applications. Approval of Division Dean.

**Prerequisite:** CSA 126 and CSC 120 and CSA 281 and CSA 282.

**Credits:** 1-6

**Lecture:** 1-6

## **CSA 296 - Internship: Computer Systems and Applications**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **CSA 299 - Independent Study Computer Systems and Applications**

**Description:** Supervised special project in this field of study. Approval of supervising Division Assistant/Associate Dean is required.

**Credits:** 1-6

## **CUL 101 - Culinary Principles**

**Description:** Introduction to the culinary industry. Includes food service terminology, customer service skills, menu development, safety, sanitation, knife cuts, commercial equipment, cooking techniques, product identification, and ratios/weights/measures. Utilizes the ServSafe materials prepared by the National Restaurant Association Education Foundation to prepare students for a national examination.

**Credits:** 4

**Lecture:** 4

## **CUL 102 - Culinary Fundamentals: Hot Foods**

**Description:** Cooking techniques and preparation of meat, fish and poultry items. Theory and practice of production of vegetables, stocks, sauces, and soups. Study of butchering, yields, purchasing and grade classification.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **CUL 103 - Culinary Fundamentals: Breakfast & Garde Manger**

**Description:** Cooking techniques and preparation of breakfast items, salads, sandwiches and dressings. Production of eggs, pasta, cheeses, and fruit dishes, canapés and hors d'oeuvres creations. Study of lettuces, fruits, grains, cheeses and dressings.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **CUL 104 - Culinary Fundamentals: Baking & Pastry**

**Description:** Cooking techniques and preparation methods for cakes, pies, cookies and simple desserts as well as production of dough and breads. Includes preparation of various bakery sauces and toppings, uses of chocolates, and appropriate presentation methods for various types of desserts.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **CUL 296 - Internship: Culinary Arts**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **CUL 299 - Independent Study Culinary Arts**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **DAN 110 - Ballet I**

**Description:** The elements of classical ballet technique. Emphasis on movement quality and artistic expression.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **DAN 111 - Modern Dance**

**Description:** The elements of modern dance technique. Emphasis on movement quality and artistic expression.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **DAN 112 - Jazz & Tap**

**Description:** The fundamentals of jazz dance and tap techniques.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **DAN 113 - Dance Freestyle**

**Description:** The fundamental and creative integration of various basic dance style techniques including ballet, jazz, ballroom and social.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **DAN 120 - Ballet II**

**Description:** Theory and practice of ballet at the advanced beginning level. Development of movement quality and performance skills.

**Prerequisite:** DAN 110.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **DAN 134 - Fox Trot, Waltz and Tango**

**Description:** Basic and beginning moves for the Fox Trot, Waltz and Tango. Includes movement, music and rhythm.

**Credits:** 1

**Lab:** 2

## **DAN 136 - Rumba, Cha Cha and Swing**

**Description:** Basic and beginning moves for the Rumba, Cha Cha, and Swing. Includes movement, music and rhythm.

**Credits:** 1

**Lab:** 2

## **DAN 145 - Dance Choreography**

**Description:** Introduction to various choreography and dance themes. Includes kinesthetic awareness, floor exercises, dance movements, and music integration.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **DAN 198 - Dance Topics:**

**Description:** Exploration of partner dance styles.

**Credits:** 1-3

**Lab:** 2-6

**Repeatable:** [Repeatable for a total of 3 credit hours towards degree/certificate requirements.]

## **DAN 296 - Internship: Dance**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **DAN 299 - Independent Study Dance**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **ECE 190 - Child Development Associate (CDA) Portfolio Preparation**

**Description:** Preparation for application to the Council of Professional Recognition to receive the Child Development Associate (CDA). Development of a professional resource file that includes evidence of competencies achieved through the Early Childhood Education Basic Core certificate.

**Prerequisite:** ECE 200 and ECE 230 and ECE 240 and ECE 260 (all may be taken concurrently).

**Credits:** 3

**Lecture:** 3

## **ECE 200 - Introduction to Early Childhood Education**

**Description:** History, perspectives and current trends in the field of early care and education. Exploration of career options within the field of working with children from birth to age eight. Includes child development theorists and their relation to program philosophies and curricula. Observation and participation hours in early childhood settings required.

**Credits:** 3

**Lecture:** 3

## **ECE 201 - Introduction to the Child Care Profession**

**Description:** Introduction to the child care profession, focusing on child development and appropriate learning environments for children from birth through age five. Includes child care licensing and developmentally appropriate curriculum in early childhood settings.

**Credits:** 3

**Lecture:** 3

## **ECE 202 - Early Childhood Curriculum**

**Description:** Development of learning activities based on the needs of preschool age children. Selection and preparation of the environment as well as materials which are basic to diverse preschool programs. Emphasis on the process of lesson planning in response to developmental levels of children. Includes the compilation of a personal file of teaching ideas, activities and resources and the exploration and construction of materials to be used while working with children.

**Credits:** 3

**Lecture:** 3

## **ECE 210 - Infant and Toddler Development**

**Description:** Exploration and application of theories of child development with children, birth through 3 years. Focus is on a relationship-based approach to promote a nurturing and stimulating environment for children in the areas of cognitive, language, social-emotional, and motor development.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **ECE 216 - Playing to Learn**

**Description:** Development of play in children birth through age eight. Includes methods to enhance learning experiences through play, role of play in a child's development, and developmentally appropriate play activities.

**Credits:** 3

**Lecture:** 3

## **ECE 220 - School Age Children**

**Description:** Development of children ages 6-12 who may be in child care or groups. Interests, attitudes, abilities, behavior and guidance of children with an emphasis on types of programs, literacy development and tutoring techniques for this age group. Observation and participation hours required.

**Credits:** 3

**Lecture:** 3

## **ECE 222 - Introduction to the Exceptional Learner**

**Description:** Overview of various type of learners with special needs including children with disabilities, gifted learners, and children at risk birth to grade 12. Includes topics on public laws related to individuals with disabilities, identification and assessment of children, characteristics of exceptional learners, inclusion, coordinating with various agencies and specialists, and planning, delivering, and documenting educational services. Observation hours in a special education or full inclusion setting required. This course is crosslisted with EDU 222.

**Credits:** 3

**Lecture:** 3

## **ECE 230 - Language and Literacy Experiences**

**Description:** Language and literacy processes and the way in which literature enriches a child's development. Review of children's literature and methods of enhancing literacy experiences. This course is cross-listed with EDU 230.

**Credits:** 3

**Lecture:** 3

## **ECE 234 - Child Development**

**Description:** Children's development from conception through childhood. Includes prenatal, brain, physical, sensory, cognitive, language, emotional, social, and moral development, as well as genetics and cultural influences. This course is cross-listed with PSY 234.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **ECE 240 - Family and Community Partnerships**

**Description:** School and family relationships with a focus on communication, ethics, professionalism and problem-solving. Impact of the community, its resources and referral systems. Emphasis on families, diversity, multicultural issues and parent involvement.

**Credits:** 3

**Lecture:** 3

## **ECE 250 - Leadership and Management in Early Childhood Programs**

**Description:** Overview of the responsibilities and tasks involved in managing and leading a quality early childhood program. Relationship of program philosophy and goals to program design, including: staffing structure, facility and equipment, budget development, program policies and relationships with families. Emphasis on the importance of shared vision, effective leadership, and a commitment towards advancing the professionalism of the early childhood education field.

**Prerequisite:** ECE 200 and ECE 202 and ECE 234/PSY 234.

**Credits:** 3

**Lecture:** 3

## **ECE 260 - Guidance of Young Children**

**Description:** Relationship-based proactive strategies to promote pro-social development of children. Exploration of theoretical foundations related to child development and implementation of a positive strength-based guidance approach to foster self-control, an organized classroom environment, development of pro-social skills, and to address persistent and challenging behaviors. This course is cross-listed with PSY 260 .

**Credits:** 3

**Lecture:** 3

## **ECE 270 - Health, Safety and Nutrition**

**Description:** Nutrition education, menu planning, childhood diseases and illness, and sanitation and safety in group settings. Protecting the health and safety of young children and promoting the development of lifelong health habits. Communication with health professionals and parents on health, safety, and nutrition issues.

**Credits:** 3

**Lecture:** 3

## **ECE 290 - Practicum: Directed Field Experience Birth-Preschool**

**Description:** Supervised experience in the education, guidance, and care of young children. Begins with opportunity to observe appropriate curriculum, then to plan and implement age-appropriate activities under careful supervision. Application required. Students must show evidence of successful completion of first aid, CPR and proof of fingerprint clearance application process when applying for placement in ECE 290.

**Prerequisite:** ECE 200 and ECE 202 and ECE 222 and ECE 230/EDU 230 and ECE 234/PSY 234 and ECE 260and ECE 270.

**Credits:** 3

**Lecture:** 1

**Lab:** 6

## **ECE 291 - Advanced Practicum: Supervised Field Experience Birth-Preschool**

**Description:** Supervised student-teaching in a birth-preschool setting. Includes application of knowledge and skills in planning and implementing curriculum under the supervision of a classroom teacher and college supervisor. Must complete application process prior to registration.

**Prerequisite:** ECE 290.

**Credits:** 4

**Lecture:** 1

**Lab:** 9

## **ECE 296 - Internship: Early Childhood Education**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements].

**Grading:** S/U grading only.

## **ECE 298 - Special Topics: Early Childhood Education**

**Description:** Introduction to special topics in Early Childhood Education.

**Credits:** 1

**Lecture:** 1

**Repeatable:** [Repeatable for a total of 2 credit hours towards degree/certificate requirements.]

## **ECE 299 - Independent Study Early Childhood Education**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **ECN 232 - Business Statistical Analysis**

**BUS 2201.**

**Description:** Survey of standard tools of statistical analysis. Topics include descriptive measures, probability, discrete probability distributions, continuous probability distributions, confidence intervals, hypothesis testing, and regression analysis.

**Prerequisite:** MAT 097

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: SUN# BUS 2201

## **ECN 234 - Quantitative Methods**

**Description:** Exploration of basic models of statistical decision making, linear programming, inventory management, CPM and simulation with emphasis on model building. Use of standard computer programs.

**Prerequisite:** ECN 232.

**Credits:** 3

**Lecture:** 3

## **ECN 235 - Principles of Economics-Macro**

### **ECN 2201.**

**Description:** An analysis of the national economy. Topics include macroeconomics problems, policy, standard analyses, international economics, and current thought.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Social Science (AGEC), SUN# ECN 2201

## **ECN 236 - Principles of Economics-Micro**

### **ECN 2202.**

**Description:** An analysis of markets. Topics include consumer choice, demand and supply, analyses of market structures, market failures, and current thought.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: SUN# ECN 2202

## **ECN 296 - Internship: Economics**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ECN 299 - Independent Study Economics**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **EDU 200 - Introduction to Education**

**Description:** Overview of education profession and U.S. educational system; historical development and foundations of education and educational institutions. Includes theories of teaching, the student as learner, current issues and trends in education, the school and community, and roles and responsibilities of the teacher. Includes a field and observation practicum.

**Prerequisite:** ENG 101 or ENG 103.

**Credits:** 3

**Lecture:** 3

## **EDU 210 - Cultural Diversity in Education**

**Description:** Prepares potential teachers to examine how race, ethnicity, and cultural differences influence students' experiences in school. Assists teachers in implementing a multicultural approach to teaching by fostering critical thinking and identifying effective teaching styles and practices for a diverse student population.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC), Ethnic, Race & Gender

## **EDU 222 - Introduction to the Exceptional Learner**

**Description:** Overview of various type of learners with special needs including children with disabilities, gifted learners, and children at risk birth to grade 12. Includes topics on public laws related to individuals with disabilities, identification and assessment of children, characteristics of exceptional learners, inclusion, coordinating with various agencies and specialists, and planning, delivering, and documenting educational services. Observation hours in a special education or full inclusion setting required. This course is crosslisted with ECE 222.

**Credits:** 3

**Lecture:** 3

## **EDU 230 - Language and Literacy Experiences**

**Description:** Language and literacy processes and the way in which literature enriches a child's development. Review of children's literature and methods of enhancing literacy experiences. This course is cross-listed with ECE 230.

**Credits:** 3

**Lecture:** 3

## **EDU 239 - Structured English Immersion Provisional Endorsement**

**Description:** Prepares certified teachers and administrators who were trained in states other than Arizona or were certified after August 2006 to meet the academic needs of English Language Learner populations and qualifies them for the Provisional SEI Endorsement as required by the Arizona Department of Education.

**Credits:** 3

**Lecture:** 3

## **EDU 241 - Full Structured English Immersion Endorsement**

**Description:** Structured English Immersion (SEI) theory, methods, and strategies as defined by the Arizona Department of Education. Along with EDU 240 meets requirements for the SEI Full Endorsement.

**Credits:** 3

**Lecture:** 3

## **EDU 255 - Fundamentals of Educational Technology**

**Description:** Designed for educators in diverse settings (e.g. public and private sectors, pre-K to grade 12, and higher education). Emphasis on systematic processes for designing, developing, evaluating and implementing technology effectively into instruction and the impact emerging technologies have on the educational environment. Aligned with International Society for Technology in Education, National Educational Technology Standards for Teachers (NETS-T).

**Credits:** 3

**Lecture:** 3

## **EDU 296 - Internship: Education**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **EDU 299 - Independent Study Education**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **ELT 101 - Basic Electricity**

**Description:** Basic principles of Alternating Current (AC) and Direct Current (DC) electricity. Examination of the structures and functions of AC and DC circuits including series, parallel and series-parallel circuits. Includes an overview of electric systems and their applications in the utility industry.

**Credits:** 4

**Lecture:** 3

**Lab:** 2

## **ELT 102 - Electronic Fundamentals**

**Description:** A survey of electronics fundamentals to include DC, AC and active device circuits.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

**Grading:** A-F Grading (A, B, C, D, F)

## **ELT 105 - Digital Fundamentals**

**Description:** Introduction to digital circuits including number systems, logic gates, combinatorial and sequential logic, microprocessor/microcontroller, architecture and programming and troubleshooting using the Arduino platform.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

**Grading:** A-F Grading (A, B, C, D, F)

## **ELT 108 - 3D Printer Operation and Maintenance**

**Description:** An introduction to 3D printing technologies, 3D printing methods and printable materials as well as current and emerging applications of 3D printing. Additional topics include assembly, calibration, use, maintenance and troubleshooting of 3D printers.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

**Grading:** A-F Grading (A, B, C, D, F)

## **ELT 111 - DC Electrical Systems**

**Description:** Utilize the principles of direct current (DC) electricity and electronic test equipment to analyze, troubleshoot and repair DC electrical circuits.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 112 - AC Electrical Systems**

**Description:** Utilize the principles of alternating current (AC) electricity and electronic test equipment to analyze, troubleshoot and repair AC electrical circuits.

**Prerequisite:** ELT 111 (may be taken concurrently).

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 115 - Conduits and Raceways**

**Description:** Layout, bending and assembly of conduit systems.

**Credits:** 1

**Lecture:** .5

**Lab:** 1

## **ELT 126 - Solid State Devices**

**Description:** Characteristics and operation of solid state devices including diodes, thyristors, bipolar and field effect transistors. Includes power supplies, diode circuits, transistor biasing and operation, triacs, and silicon-controlled rectifiers.

**Prerequisite:** ELT 111 and ELT 112.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 130 - Introduction to Robotics**

**Description:** Fundamental concepts of robotics including how robots move, sense, and perceive the world around them. Hands-on operation and programming of robots.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 140 - Robot Vision**

**Description:** Basic tasks and procedures required for an operator, technician, engineer or programmer to set up, teach, test, and modify GE FANUC iRVision applications on an R-30iA Robot Controller.

**Prerequisite:** ELT 130.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 141 - Electrical Apparatus**

**Description:** Overview of transformers and their operation including single and three-phase theory. Focus is on construction and hook-up of single-phase, three-phase, open Y and Delta transformer connections. Covers capacitor banks, including application and installation.

**Prerequisite:** ELT 101 (May be taken concurrently) or ELT 112 (May be taken concurrently).

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **ELT 150 - Embedded Systems and IoT**

**Description:** An introduction to embedded systems and their use in IoT-based (Internet of Things) systems. Hardware and software components including design considerations, constraints and interfacing between the physical world and embedded devices.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

**Grading:** A-F Grading (A, B, C, D, F)

## **ELT 162 - Microprocessors & Microcontrollers**

**Description:** An introduction to microprocessor, and microcontroller architecture and programming. Topics include, memory, instruction sets, addressing modes, serial/parallel interfacing, and troubleshooting. Real-time applications are studied and verified on protoboards and actual microprocessors.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **ELT 165 - Programmable Logic Controllers**

**Description:** Introduction to programmable logic controller (PLC) architecture and programming. Topics include, memory, instruction sets, addressing modes, serial/parallel interfacing, relay/ladder logic, and troubleshooting. Real-time applications are studied and verified on protoboards and actual PLCs.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **ELT 171 - Process Control Instrumentation**

**Description:** Instrumentation associated with industrial process control, including measurements of pressure, force, weight, motion, flow, level, and temperature; analytical measurement and procedures for safety, calibration and testing.

**Prerequisite:** ELT 126.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 183 - Digital Circuits**

**Description:** Introduction to logic circuits used in computers and other digital equipment. Includes number systems, logic gates, combinatorial logic, simplification techniques, encoders, decoders, flip-flops, counters, registers, memory, and digital-to-analog and analog-to-digital converters.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 201 - Introduction to Linework I**

**Description:** Overview of the linework industry including its history, technological developments and current practices. Examination of industry equipment and tools. Focus is on safety practices and procedures used in utility linework industry.

**Prerequisite:** ELT 101 (May be taken concurrently) or ELT 112 (May be taken concurrently).

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **ELT 202 - Field Training I (Lineworker)**

**Description:** Basics of climbing and working on utility poles. Focus is on apparatus and equipment, using ropes and rigging equipment, installations of single and double cross arms, pole framing and setting, use of hand line and building singlephase lines.

**Prerequisite:** ELT 201 (May be taken concurrently).

**Credits:** 6

**Lecture:** 2

**Lab:** 8

## **ELT 211 - Introduction to Linework II**

**Description:** Advanced study of the linework industry with an emphasis on hot sticking and lockout/tagout procedures using industry-standard safety practices.

**Prerequisite:** ELT 201.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **ELT 212 - Field Training II (Lineworker)**

**Description:** Installation of electrical lines including transformers, reclosers and capacitor banks. Topics include rubber gloving, hot sticking techniques, and working on underground lines. Practice in the safe set up and operation of equipment used in the linework industry with a focus on the development of entry-level skills as drivers and operators. Includes Commerical Driver's License (CDL) standards as well as procedures and practice in pole-top and bucket truck rescues.

**Prerequisite:** ELT 202.

**Credits:** 6

**Lecture:** 2

**Lab:** 8

## **ELT 221 - Communication Systems and Circuits**

**Description:** Introduction to the theory and principles of modern electronic communication systems. Topics include: amplitude modulation (AM) transmission and reception, frequency modulation (FM) transmission and reception, single sideband (SSB) communication techniques and digital communication.

**Prerequisite:** ELT 126 and ELT 162.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 258 - Electronic Troubleshooting**

**Description:** Problem solving techniques and methodology using foundational concepts of DC, AC, solid state devices and digital circuits. Emphasis on troubleshooting utilizing analog and digital test equipment to identify faults in a variety of nonfunctional circuits and equipment.

**Prerequisite:** ELT 126 and ELT 183.

**Credits:** 2

**Lab:** 4

## **ELT 272 - Motors and Motor Controls**

**Description:** Characteristics, performance and control of rotating electrical machinery, transformers and associated equipment.

**Prerequisite:** ELT 111 and ELT 112.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ELT 295 - Apprenticeship: Electrical Instrumentation**

**Description:** Supervised field experience.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 12 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ELT 296 - Internship: Electrical Technician**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ELT 299 - Independent Study Electronics Technology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **EMA 101 - Principles of Emergency Management**

**Description:** Theories, principles and approaches to emergency management. Identification of the functions and evolution of the emergency management field including mitigation, preparedness, response and recovery. Evaluation of past disasters, the threat of terrorism, international disaster management, and their impact on policy formation.

**Credits:** 3

**Lecture:** 3

## **EMA 102 - Emergency Planning**

**Description:** Purpose and scope of emergency planning including an overview of the plan in practice, specialized planning, reconstruction planning, emergency management training, and regulatory requirements.

**Credits:** 3

**Lecture:** 3

## **EMA 110 - Public Administration and Emergency Management**

**Description:** Public administration and its role with emergency management agencies. Management of public and non-governmental organizations involved in dealing with hazards and disasters. Emphasis on working within the networks of public, private, and nonprofit and volunteer organizations.

**Credits:** 3

**Lecture:** 3

## **EMA 130 - Leadership Models for Emergency Management**

**Description:** Organizational performance and organizational vision. Various forms of leadership including situational leadership, self leadership, partnering, organizational leadership, and servant leadership. The importance of empowerment, essential skills for partnering, strategies for the management of change, and higher level customer service.

**Credits:** 3

**Lecture:** 3

## **EMA 140 - Disaster Response and Recovery**

**Description:** Exploration of past and present disasters and emergency responses, and the importance of a sustainability framework for natural and technological hazards. Analysis of loss, costs and other impacts dealt with through preparedness, response, and recovery efforts.

**Credits:** 3

**Lecture:** 3

## **EMA 210 - Disaster Mitigation and Business Continuity**

**Description:** Foresight and management to reduce losses due to disasters and catastrophic events. Bridging the gap between field response, research, planning, and management as well as disaster survival and avoidance by containing an event. Emphasis on the establishment and maintenance of a successful business continuity program.

**Credits:** 3

**Lecture:** 3

## **EMA 220 - Ethical Leadership for the Emergency Manager**

**Description:** Ethical leadership concepts and issues. Various core and emerging leadership behaviors. Analysis of current leadership issues and integration.

**Credits:** 3

**Lecture:** 3

## **EMA 225 - Leadership Development for the Emergency Manager**

**Description:** Leadership methodologies including traits, skills, techniques, and situational approaches. Includes the analysis of various leadership theories and styles of leadership.

**Credits:** 3

**Lecture:** 3

## **EMA 230 - Emergency Management for Local Government.**

**Description:** Context, functions and phases, and major issues of emergency management for local government. Overview of the origins and evolution of emergency management, collaborative emergency management, phases of emergency management, health sector planning and response, new technology, budgeting, and the future direction in emergency management.

**Credits:** 3

**Lecture:** 3

## **EMA 240 - Terrorism and Homeland Security for the Emergency Manager**

**Description:** Terrorism, typologies of terrorism, and the criminology, political, and religious underpinnings. Analysis of the organization and financing of terrorism along with terrorism and the media, and terrorism tactics and force multipliers. History of terrorism along with terrorism today, Analysis of Homeland Security including law enforcement bureaucracy, civil liberties, and terrorism prevention.

**Credits:** 3

**Lecture:** 3

## **EMA 245 - Law and Legal Issues for Emergency Management**

**Description:** Aims, purpose and scope of legal issues within, emergency management including administrative agencies, civil liability, contract and labor issues, and employee rights.

**Credits:** 3

**Lecture:** 3

## **EMA 250 - Organizational Development and Change**

**Description:** Aims, purposes and the scope of development and change within an organization including management of the past and present, organizational culture, structure, design, behaviors, communication methods and teamwork. Analysis of theory and practice, processes and systems, and leadership development.

**Credits:** 3

**Lecture:** 3

## **EMS 120 - Basic First Aid, CPR and AED**

**Description:** First Aid for victims of all ages. Includes basic recognition and care of medical and trauma patients. Awareness of environmental emergencies including bites, stings, and exposure to hot and cold. Cardiopulmonary resuscitation (CPR) and Automated External defibrillator (AED) use. Meets the requirements of Heartsaver First Aid by the American Heart Association.

**Credits:** .5

**Lecture:** .5

**Grading:** (A-F grading only.)

## **EMS 123 - Cardiopulmonary Resuscitation for the Health Care Provider**

**Description:** CPR for victims of all ages. Includes ventilation with a barrier device, a bag-valve-mask device and oxygen, and use of an automated external defibrillator (AED). Meets the requirements of Healthcare Provider CPR & AED by the American Heart Association.

**Credits:** .5

**Lecture:** 5

**Grading:** (S/U grading only.)

## **EMS 126 - Wilderness First Responder**

**Description:** Principles and skills to make critical medical and evacuation decisions and take appropriate action in remote locations where advanced medical assistance is more than one hour away.

**Prerequisite:** EMS 123.

**Credits:** 3

**Lecture:** 3

## **EMS 132 - Emergency Medical Technician**

**Description:** Principles and techniques of emergency medical care as performed by the EMT Basic in accordance with national and state curriculum. Preparation for the National Registry of EMT Certification Examination. Requirements: Proof of TB skin test or chest x-ray within 6 months; Proof of MMR-2 doses or lab titer confirming immunity; Proof of Varicella-2 doses or lab titer confirming immunity; Photo ID. Must demonstrate reading proficiency at the 12th grade level and be 17.5 years of age at the start of class. Click here to view additional enrollment requirements and the application.

**Credits:** 10

**Lecture:** 9

**Lab:** 3

**Grading:** A-F grading only.

## **EMS 211 - Emergency Medical Technician Refresher**

**Description:** New techniques and review of principles in client care, basic life support and transportation of sick and injured. Meets Arizona Department of Health Services refresher training requirements.

On the first day of class, the student will need to submit:

1. One of the following -

- a) Current certification from the DHS as an EMT or higher EMCT classification, or
  - b) Documentation of completion of prior training in an EMT course within the past two (2) years, or
  - c) Documentation of current National Registry of EMTs at the EMT or higher EMCT classification, or
  - d) Documentation from National Registry of EMTs requiring the student to complete the EMT refresher course to be eligible for registration in the National Registry of EMTs, AND
2. Documentation of current American Heart Association certification in Basic Life Support for Healthcare Providers

**Credits:** 2

**Lecture:** 2

**Grading:** S/U grading only.

## **EMS 255 - Paramedic Refresher**

**Description:** Review of advanced skills applied by certified emergency paramedics. Study of the anatomy, physiology, pathophysiology, and management of medical, obstetrical, pediatric emergencies, neurological injuries and specific chronic diseases related to the central nervous system, behavioral emergencies, respiratory emergencies, and shock.

On the first day of class, the student will need to submit:

1. One of the following -
  - a) Current certification from the DHS as an AEMT, EMT-I(99), or Paramedic, or
  - b) Documentation of completion of prior training in an AEMT level or higher course within the past two (2) years, or
  - c) Documentation of current National Registry of EMTs at the AEMT or Paramedic classification, or
  - d) Documentation from National Registry of EMTs requiring the student to complete the ALS refresher course to be eligible for registration in the National Registry of EMTs, AND
2. Documentation of current American Heart Association certification in Basic Life Support for Healthcare Providers and Advanced Cardiac Life Support

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **EMS 261 - Paramedicine I**

**Description:** Introduction to Paramedicine including overview of rules and regulations, paramedic attributes, dispatch operations, EMS operations, human anatomy and physiology, pharmacology, medication pain management pharmacology, IV and IO fluid administration, airway and ventilation management, patient assessment and trauma.

**Prerequisite:** Program Admission

**Credits:** 14

**Lecture:** 12

**Lab:** 6

## **EMS 262 - Paramedicine II**

**Description:** Introduction to paramedic level pharmacology, pharmacokinetics and pharmacodynamics. Medication administration techniques. Extensive overview of national standard paramedic level drug profiles. ECG monitor and defibrillator operations. ECG 4- and 12- lead interpretation. Pulmonology, respiratory anatomy and pathophysiology. Cardiac anatomy, physiology and pathophysiology of heart disease. American Heart Association Advanced Cardiac Life Support (ACLS) Providers course.

**Prerequisite:** EMS 261.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **EMS 263 - Paramedicine III and Clinical Practicum**

**Description:** Introduction to Paramedicine including extensive overview of the National EMS Education Standard's modules in Medical and Special Considerations. Current American Heart Associate guidelines in pediatric emergency care. Introduction to hospital clinical rotations. Clinical practicum rotations concurrent with class.

**Prerequisite:** EMS 262.

**Credits:** 16

**Lecture:** 10

**Lab:** 18

## **EMS 264 - Paramedicine IV and Field Practicum**

**Description:** Introduction to vehicular practicum. Orientation to the field environment, vehicular scheduling and behaviors required to provide hands-on emergency patient care under direct supervision of an authorized preceptor in the out-of-hospital emergency response environment. Minimum 400 ride along hours required.

**Prerequisite:** EMS 263.

**Credits:** 9

**Lab:** 27

## **EMS 296 - Internship: Emergency Medical Services**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **EMS 299 - Independent Study Emergency Medical Services**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **EGR 102 - Introduction to Engineering**

**Description:** Introduction to the field of engineering. Emphasizes the integration of teamwork, problem solving, and verbal communication skills into a design project.

**Prerequisite:** MAT 187. Reading Proficiency.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **EGR 180 - CAD (Computer Aided-Drawing) with SolidWorks**

**Description:** Fundamentals of graphical communications, including sketching, computer-aided drafting, design, and parametric modeling.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ENG 085 - College Literacy Skills**

**Description:** Introduction to college-level reading skills with emphasis on developing vocabulary, using adaptive reading strategies, recognizing organizational patterns, identifying main ideas and supporting details, and analyzing for comprehension.

**Prerequisite:** Satisfactory score on the reading skills assessment.

**Credits:** 4

**Lecture:** 4

## **ENG 091 - College Writing Success Skills**

**Description:** Academic and personal skills needed to promote success in Introductory Composition.

**Corequisite:** ENG 100.

**Credits:** 1

**Lab:** 3

## **ENG 092 - Writing Success Lab I**

**Description:** Individualized writing instruction designed to complement and improve performance in College Composition I.

**Corequisite:** ENG 101.

**Credits:** 1

**Lab:** 3

## **ENG 093 - Writing Success Lab II**

**Description:** Individualized reading and writing instruction designed to complement and improve performance in College Composition II.

**Corequisite:** ENG 102.

**Credits:** 1

**Lab:** 3

## **ENG 100 - Introductory Composition**

**Description:** Introduction to basic writing, reading and research skills required for success in college.

**Prerequisite:**

Satisfactory score on the skills assessment. (ENG 085 (This may be taken concurrently). Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## **ENG 101 - College Composition I**

**ENG 1101.**

**Description:** Composing expository and argumentative essays for specific audiences. Emphasis on the processes of writing, reading and critical thinking. Introduction to research and documentation.

**Prerequisites:** Satisfactory score on the English skills assessment; or a grade of "C" or better in ENG 100. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Applied Communication/Writing, College Composition, SUN# ENG 1101

## **ENG 102 - College Composition II**

**ENG 1102.**

**Description:** Extensive critical reading and writing about texts. Emphasis on fluency in critical writing. Includes research skills and writing a critical, documented essay.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Writing, College Composition, SUN# ENG 1102

## **ENG 103 - College Composition I Honors**

**Description:** Composing expository and argumentative essays for specific audiences. Emphasis on the processes of writing, reading, and critical thinking. Advanced ENG 101 content and learning activities. Introduction to research and documentation.

**Prerequisite:** Placement by English skills assessment. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Writing, College Composition

## **ENG 104 - College Composition II Honors**

**Description:** Extensive critical reading and writing about texts, including literature. Emphasis on fluency in critical writing. Advanced ENG 102 content and learning activities. Includes research skills and writing a critical, documented essay.

**Prerequisite:**

ENG 103 or ENG 101 and placement by English skills assessment. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Writing, College Composition

## **ENG 136 - Technical Writing**

**Description:** Practical writing for the world of work, from business correspondence to technical reports.

**Prerequisite:** ENG 100 or COM 135 or minimum COMPASS writing score of 80. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Writing

## **ENG 140 - Reading the World:**

**Description:** Develop academic reading and critical thinking strategies. Focus on improving reading comprehension, information literacy, and vocabulary.

**Prerequisite:**

ENG 100 or higher level composition (may be taken concurrently) or satisfactory score on the English skills assessment. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **ENG 211 - British Literature: Beginning to 18th Century**

**Description:**

Exploration of major artistic, historical, cultural, philosophical, gender, and genre issues represented in selected works from Medieval, Renaissance, 17th and 18th century British literature.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:**

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 212 - British Literature 1798 to Present**

**Description:** Exploration of major artistic, historical, cultural, philosophical, gender, and genre issues represented in selected works of British literature from 1798 to the present.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 217 - Major Issues in World Literature**

**Description:** Investigation of major artistic, historical, ethnic, race, gender and philosophical issues in representative works of great literature.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 219 - Major Issues in Modern and Contemporary Drama**

**Description:** Exploration of important works of world drama from 1870 to the present. Critical analysis of historical, political, economic, social, and cultural issues that have shaped and been shaped by modern and contemporary plays.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 230 - Introduction to Literature**

**Description:** Introduction to close reading and writing about a variety of works of literature from different genres.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **ENG 237 - Women in Literature**

**Description:** Survey of women in literature from ancient Greece to present with emphasis on images of female protagonists as portrayed by male and female authors.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 240 - American Literature to 1865**

**Description:** Exploration of major artistic, historical, philosophical, cultural and gender issues represented in selected works from the Colonial era to the Civil War

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 241 - American Literature 1865 to Present**

**Description:** Exploration of major artistic, historical, philosophical, cultural and gender issues represented in selected works from the Civil War to the present.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 242 - Introduction to Shakespeare**

**Description:** An examination, through close reading, critical analysis and research, of six to eight Shakespearean plays, selected sonnets and poems as well as an investigation into the cultural and historical settings from which his work emerged.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **ENG 296 - Internship: English**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ENG 298 - Special Topics in Literature**

**Description:** Investigation of major artistic, historical and philosophical issues in representative works of literature within topic or genre.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **ENG 299 - Independent Study English**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **ENV 105 - Environmental Biology**

**Description:** Introduction to ecological systems, natural resources, and applications to environmental issues. Includes population, community, and ecosystem analysis. Emphasis on field, laboratory, and writing activities. This course is cross-listed with BIO 105.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **ENV 110 - Environmental Geology**

**Description:** Introduction to geologic studies and their application to environmental problems, causes and possible solutions. Includes geologic processes, geohazards, and geologic natural resources. This course is cross-listed with GLG 110.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **ENV 296 - Internship: Environmental Studies**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **ENV 299 - Independent Study Environmental Studies**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **FMA 100 - Animation Principles**

**Description:** Introduction to fundamental principles of animation. Film viewing, basic theory and mechanics of animation, and how those skills apply to specific careers. Emphasis on the fundamentals of character design, storyboarding, and layout through the creation of a short animation project.

**Credits:** 3

**Lecture:** 3

## **FMA 101 - Film/TV History and Analysis**

**Description:** Analysis of films and television programs, looking at them in an historical context. Focus is on artistic, storytelling, character development, design, production and business content of the media and includes replication of the production styles in the studio.

**Credits:** 3

**Lecture:** 3

## **FMA 102 - Production I**

**Description:** Exploration of how film/video images and sound work together to tell a story. Analysis of specific film and scenes from different media, and re-creation of visual and auditory experiences in the studio.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **FMA 103 - Screenwriting I**

**Description:** Writing for the screen across the media: film, television, documentaries, YouTube, commercials and industrial video. Includes marketing the products.

**Credits:** 3

**Lecture:** 3

## **FMA 105 - Production II**

**Description:** Skills and techniques for planning location and studio shoots; directing, cinematography and sound capture using digital cameras.

**Prerequisite:** FMA 102.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **FMA 106 - Editing I**

**Description:** Film editing from analysis and story structure to final cut using industry standard techniques and software.

**Credits:** 3

**Lecture:** 3

## **FMA 107 - Editing II**

**Description:** Film editing focuses on story structure of thesis through polished film, including sound, music and picture. Post-Production management includes keeping workflow current.

**Prerequisite:** FMA 106.

**Credits:** 3

**Lecture:** 3

## **FMA 108 - YouTube Content and Marketing**

**Description:** Establishment and maintenance of a YouTube channel for professional promotion. Includes both the production of content as well as marketing and business strategies for promoting and monetizing that content.

**Credits:** 3

**Lecture:** 3

## **FMA 109 - Screenwriting: Iconic Film and Television Analysis**

**Description:** Exploration of iconic films (both studio and indie) and television shows as part of the language of filmmaking. Analysis of what makes certain scenes from film and TV "iconic" and how they continue to influence the future of cinema. Development of new stories, scenes and screenplays that evoke iconic film scenes.

**Credits:** 3

**Lecture:** 3

## **FMA 110 - Pre-Production**

**Description:** Pre-production for thesis film, including completion of a budget, break down of a script, casting actors, recruiting crew, and procuring locations.

**Credits:** 3

**Lecture:** 3

## **FMA 112 - Film/TV/Media Reviews and Criticism**

**Description:** Multiple approaches to the art and practice of film criticism. Differences between film reviewing and criticism, and the importance of audience, style and approach. Emphasis on story, director, acting, editing and production value. Practice film criticism through film viewing and discussion of films and through writing and peer reviews.

**Credits:** 3

**Lecture:** 3

## **FMA 113 - Stop Motion Animation**

**Description:** Introduction to fundamental principles of stop motion and experimental animation. Experiments with lighting, staging and camera placement while animating three-dimensional materials shot with a digital camera in real three-dimensional space.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **FMA 114 - Animation Production**

**Description:** Working as part of a team in the production of an animated project, emphasis is on visual storytelling, animation, sound, editing and compositing.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **FMA 117 - Cinematography**

**Description:** Exploration of professional camera work and lighting for film and video. Advanced production techniques and equipment to produce, direct and photograph footage. Editing of footage to create a professional reel.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **FMA 120 - Thesis Film/TV Production**

**Description:** Production of a 5-10 minute film or media of student's choice. Directing and producing an original short film/TV project.

**Prerequisite:** FMA 102 and FMA 106.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **FMA 121 - Screenwriting II**

**Description:** Screenplay writing techniques applied to a range of script projects including short and feature films, industrial video, marketing and TV. Writing practice, including writing dialogue and building structure and characterization, and continuing development of visual language.

**Prerequisite:** FMA 103

**Credits:** 3

**Lecture:** 3

## **FMA 296 - Internship: Film and Media Arts**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **FMA 299 - Independent Study Film and Media Arts**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **FSC 100 - Principles of Emergency Services**

**Description:** Overview of fire protection and emergency services along with its culture and history; career opportunities; organization and function of public and private fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives.

**Credits:** 3

**Lecture:** 3

## **FSC 102 - Principles of Fire and Emergency Services Safety & Survival**

**Description:** Basic principles and history of the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services.

**Credits:** 3

**Lecture:** 3

## **FSC 104 - Hazardous Materials First Responder Operations**

**Description:** Introduction to the major categories of hazardous materials. Includes detection, identification, scene management, basic training, equipment planning, strategy and tactics in the management of hazardous materials incidents. Preparation for Arizona Center for Fire Service Excellence certification.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **FSC 105 - Firefighter I & II Certification Academy**

**Description:** Essentials of firefighting including fire department operations, firefighting equipment, and safety. Emphasis on the chemistry of fire, techniques of firefighting, and utilization of equipment in fire suppression. Preparation for State Fire Marshal Fire Fighter I and II certification.

**Prerequisite:** FSC 104 (may be taken concurrently).

**Credits:** 12

**Lecture:** 10

**Lab:** 6

## **FSC 135 - Fire Prevention**

**Description:** Topics of fire prevention including: history and philosophy; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and life safety education; and fire investigation.

**Credits:** 3

**Lecture:** 3

## **FSC 137 - Fire Protection Hydraulics and Water Supply**

**Description:** Theoretical foundation in the principles of water use for fire protection. Includes application of the laws of hydraulics to analyze and solve water supply problems.

**Credits:** 3

**Lecture:** 3

## **FSC 138 - Fire Department Apparatus**

**Description:** Responsibilities and skills required of fire department pumping apparatus drivers/operators. Includes operation of pumping apparatus at simulated fire and hazardous materials incidents. Preparation for the competencies of NFPA 1002, Standard on Fire Apparatus Driver/Operator Professional Qualifications.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **FSC 155 - Basic Wildland Firefighting**

**Description:** Introduction to wildland fire prevention, including fire behavior, suppression methods, equipment considerations, safety, and incident command. (S- 130/190, I-100, L-180).

**Credits:** 3

**Lecture:** 3

## **FSC 210 - Advanced Fire Behavior and Combustion**

**Description:** Advanced theories of how and why fires start, spread, and how they are controlled.

**Credits:** 3

**Lecture:** 3

## **FSC 225 - Legal Aspects of Emergency Services**

**Description:** Federal, state, and local laws that regulate, and national standards that influence, emergency services. Includes standard care, tort, liability and consensus standards as they pertain to emergency services.

**Credits:** 4

**Lecture:** 4

## **FSC 234 - Fire Investigation**

**Description:** Fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.

**Credits:** 3

**Lecture:** 3

## **FSC 235 - Fire Protection Systems**

**Description:** Design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers.

**Credits:** 3

**Lecture:** 3

## **FSC 236 - Occupational Safety and Health for Emergency Services**

**Description:** Basic concepts of occupational health and safety as it relates to emergency service organizations. Includes risk and hazard evaluation and control procedures for emergency service organizations.

**Credits:** 3

**Lecture:** 3

## **FSC 238 - Strategy and Tactics**

**Description:** Principles of fire ground control through utilization of personnel, equipment, and extinguishing agents.

**Credits:** 3

**Lecture:** 3

## **FSC 239 - Fire Department Company Officer**

**Description:** Supervisory methods for the fire service in fire safety, fire department organization and personnel supervision. Elements of management for the first-level Company Officer Supervisor. Includes principles of organization, communication, leadership and emergency incident management.

**Credits:** 3

**Lecture:** 3

## **FSC 240 - Principles of Fire and Emergency Service Administration**

**Description:** Organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.

**Credits:** 3

**Lecture:** 3

## **FSC 241 - Building Construction for Fire Protection**

**Description:** Components of building construction related to firefighter and life safety. Emphasis on the construction and design of structures as key factors when inspecting buildings, pre-planning fire operations, and operating at emergencies.

**Credits:** 3

**Lecture:** 3

## **FSC 296 - Internship: Fire Science**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **FSC 299 - Independent Study Fire Science**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **GEO 101 - World Geography West**

### **GEO 1121.**

**Description:** A geographical exploration of the people, places, and landscapes of North America, South America, Europe and Russia.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Global/Internal or Historical, Social Science (AGEC)

## **GEO 102 - World Geography East**

### **GEO 1121.**

**Description:** A geographical exploration of the people, places, and landscapes of Africa, Asia and Australia/Pacific Islands.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Global/Internal or Historical, Social Science (AGEC)

## **GEO 103 - Introduction to Physical Geography**

**Description:** A geographic introduction to the physical processes and landforms of the earth.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **GEO 105 - Introduction to Cultural Geography**

**Description:** An geographical exploration of the human landscape, examining aspects of culture such as language, religion, political organization and economics.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Global/Internal or Historical, Social Science (AGEC)

## **GEO 210 - Society and Environment**

**Description:** Interaction among social processes, key environmental issues, and nature's role as a resource at global and regional scales. Application of critical thinking skills to analyze environment-human interactions.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **GEO 212 - Introduction to Meteorology**

**Description:** Physical and chemical conditions that regulate global weather phenomena. Includes structure of the atmosphere, temperature, humidity, air pressure and winds, the development of weather systems, tornadoes and hurricanes, and the parameters that affect local and global climate. Laboratory includes image interpretation, field observation and prediction.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **GEO 296 - Internship: Geography**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **GEO 299 - Independent Study Geography**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **GLG 101 - Introduction to Geology I**

### **GLG 1101.**

**Description:** Geologic principles emphasizing the structure and composition of the earth, internal and external earth processes and plate tectonics.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# GLG 1101

## **GLG 102 - Introduction to Geology II**

**Description:** Earth's origin and history, including plate tectonics and the consequent movement and distribution of lands and seas through time; basic concepts of age-dating, stratigraphy, and the study of fossils; the geologic time scale and development of life on earth.

**Prerequisite:** GLG 101 or GLG 110. Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **GLG 110 - Environmental Geology**

**Description:** Introduction to geologic studies and their application to environmental problems, causes and possible solutions. Includes geologic processes, geohazards, and geologic natural resources. This course is cross-listed with ENV 110.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **GLG 132 - Topics in Regional Geology**

**Description:** Basic geology, geography, and geologic formation of selected regions.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **GLG 196 - Directed Research: Geology**

**Description:** Faculty or mentor directed student research in an area of current scientific investigation culminating in a final report, paper, or presentation. Students will work in the lab or in the field to gain the intellectual, technical, and practical skills necessary to further the knowledge base in an area of scientific investigation with the objective of contributing to the professional body of scientific knowledge.

**Credits:** 1-3

## **GLG 296 - Internship: Geology**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **GLG 299 - Independent Study Geology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **GRN 100 - Introduction to Social Gerontology**

**Description:** Gerontology is a multi-disciplinary field of study. Emphasis on psychology, sociology, economics, ethics, health care, legal issues related to working with older adults.

**Credits:** 3

**Lecture:** 3

## **GRN 101 - Psychology of Aging**

**Description:** Study of the adult aging process. Focus on developmental psychology. Explore physiological, sociological and psychological issues affecting cognition, personality, and mental health in later years.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **GRN 102 - Health and Aging**

**Description:** Designed for students working with older adults. Emphasis on normal changes of aging and preventative measures for maintaining optimal functioning. Focus on health problems, symptoms and treatments.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **GRN 294 - Practices in Gerontology**

**Description:** Development of skills such as interviewing, narrative writing, the casework process, intake and assessment, intervention and termination. The values associated with practice in the helping fields will be explored.

**Prerequisite:** GRN 100 and GRN 102.

**Credits:** 3

**Lecture:** 3

## **GRN 295 - Practicum in Gerontology**

**Description:** Field experience to apply gerontological theory in a practice setting. Supervision by "on site" supervisor and instructor.

**Prerequisite:** GRN 294.

**Credits:** 2

**Lab:** 6

## **GST 100 - Apprentice Gunsmithing**

**Description:** Basic gunsmithing skills including shop and general firearms safety, machine tool skills, stockmaking, metal refinishing, shotgun design, application and function. Rifle systems and ballistics. Integration of computer applications.

**Prerequisite:** Application required with the following documentation: Yavapai College Student Number (Y#), current concealed carry weapon (CCW) permit or federal background check. Students under the age of 21 must contact ID Vetting (866.987.3767) for security check if their state does not issue CCW permits for applicants under the age of 21, and gunsmithing disclosure statement.

**Credits:** 10

**Lecture:** 4

**Lab:** 18

## **GST 150 - Journeyman Gunsmithing**

**Description:** Intermediate study of machine tool use and firearms applications. Milling, turning, precision grinding, break action shotguns, stockmaking. Pistol and revolver design and function. Shotgun design, application and function.

**Prerequisite:** GST 100.

**Credits:** 10

**Lecture:** 4

**Lab:** 18

## **GST 191 - Basic Engraving**

**Description:** Practice in the art of engraving, primarily on steels used in the manufacturing of firearms. Operations and setups performed on a variety of projects and exercises.

**Credits:** 3

**Lecture:** 1

**Lab:** 6

## **GST 192 - Advanced Engraving**

**Description:** Design and layout on flat and cylindrical surfaces. Emphasis on balance, selecting tools and fixtures, manipulation of the engraver's vise, and all components familiar to the trade.

**Prerequisite:** GST 191.

**Credits:** 3

**Lecture:** 1

**Lab:** 6

## **GST 195 - Gunsmithing Practicum**

**Description:** Laboratory and extended shop experience for students to develop skills in project planning, drawing and craftsmanship.

**Prerequisite:** Concurrent enrollment in GST 100 or GST 150.

**Credits:** 2

**Lab:** 6

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **GST 200 - Professional Gunsmithing**

**Description:** Advanced gunsmithing techniques and applications of existing skills. Studies in precision barreling of rifles. Major pistol and revolver modifications. Advanced stockmaking procedures and machining of major firearm components.

**Prerequisite:** GST 150

**Credits:** 10

**Lecture:** 4

**Lab:** 18

## **GST 250 - Master Gunsmithing**

**Description:** Mastery of Gunsmithing skills and metal skills. Capstone course to build the student portfolio. Construction of a business plan.

**Prerequisite:** GST 200.

**Credits:** 10

**Lecture:** 1

**Lab:** 27

## **GST 270 - Guild Firearms**

**Description:** Assembly and construction of guild quality traditional sporting firearms. Preparation for application to a firearm guild.

**Prerequisite:** GST 250.

**Credits:** 10

**Lecture:** 3

**Lab:** 20

## **GST 280 - Competition Firearms**

**Description:** Maintenance, assembly and construction of competition firearms.

**Prerequisite:** GST 250.

**Credits:** 10

**Lecture:** 3

**Lab:** 20

## **GST 291 - Professional Firearms Engraving**

**Description:** Individualized instruction in advanced methods and techniques employed by professional firearms engravers. Student must provide pistol or rifle to be engraved.

**Prerequisite:** GST 192.

**Credits:** 3

**Lecture:** 1

**Lab:** 6

## **GST 295 - Advanced Gunsmithing Practicum**

**Description:** Advanced gunsmithing laboratory and practice for students concurrently enrolled in one or more of the 200-level gunsmithing courses. Emphasis on development of a project plan, application of tooling and craftsman skills, and use of quality control standards.

**Prerequisite:** Concurrent enrollment in GST 200 or GST 250.

**Credits:** 2

**Lab:** 6

**Course Attributes:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **GST 296 - Internship: Gunsmithing**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **GST 299 - Independent Study Gunsmithing**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **HIM 110 - Introduction to Health Information Management**

**Description:** Introduction to the history, evolution and functions performed in the Health Information Management profession. Emphasis on health record content and use within and outside the Health Information Management (HIM) Department.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## **HIM 141 - Healthcare Delivery Systems**

**Description:** Overview of healthcare delivery, regulation, operation, financing, organization and structure in the United States. Includes external standards, regulations and initiatives.

**Prerequisite:** HIM 110.

**Credits:** 3

**Lecture:** 3

## **HIM 155 - Health Information Management Computer Systems**

**Description:** Computer systems and their applications within the disciplines of health care and Health Information Management (HIM).

**Prerequisite:** CSA 126.

**Credits:** 2

**Lecture:** 2

## **HIM 173 - Legal and Ethical Aspects of Health Information Management**

**Description:** Application of general principles of law and ethics as related to health information management and patient record management in an electronic, hybrid or paper environment. Legal and ethical issues, legal terminology, records law, patient rights, privacy and security and regulations.

**Prerequisite:** Reading Proficiency.

**Credits:** 2

**Lecture:** 2

## **HIM 176 - CPT Coding**

**Description:** Overview and introduction to the principles of Current Procedural Terminology (CPT) coding techniques, conventions, and modifiers. Review of reimbursement trends, ethical coding and compliance, and the National Correct Coding Initiative (NCCI). Documentation guidelines in relationship to assignment of CPT and Evaluation and Management (E/M) codes. Includes hands-on practical skills in the assignment of CPT codes following coding rules and guidelines.

**Prerequisite:** BIO 160 (or BIO 201 and BIO 202 ) and AHS 130 and HIM 110 and HIM 240.

**Credits:** 3

**Lecture:** 3

## **HIM 200 - Principles of Healthcare Leadership**

**Description:** Introduction to the principles of leadership in health care and Health Information Management (HIM). Includes management theory, planning, organizing, leading and controlling through total quality improvement.

**Credits:** 2

**Lecture:** 2

## **HIM 210 - Healthcare Statistics and Research**

**Description:** Concepts of basic healthcare statistics utilized in Health Information Management (HIM). Data collection methods, computation, organization and presentation of reported health statistics.

**Prerequisite:** CSA 126.

**Credits:** 2

**Lecture:** 2

## **HIM 220 - Health Information Management in Alternative Healthcare Settings**

**Description:** Overview of non-acute care settings and their unique Health Information Management (HIM) practices, systems applications, coding and HIM department staff roles.

**Prerequisite:** HIM 110.

**Credits:** 2

**Lecture:** 2

## **HIM 240 - Disease Process**

**Description:** Examination of the most common diseases of each body system, with normal anatomy and physiology compared to pathologic anatomy and physiologic malfunctioning due to disease process. Diagnostic methods, etiology, management, treatment, modalities, pharmacology and prognosis are discussed.

**Prerequisite:** BIO 160 or (BIO 201 and BIO 202). Reading Proficiency.

**Credits:** 4

**Lecture:** 4

## **HIM 242 - Healthcare Reimbursement Methodology**

**Description:** A comprehensive review of reimbursement systems used in professional and institutional healthcare settings. Emphasis on eligibility, health plans and programs, claims processing and third party payers. Review of HIPAA, federal billing guidelines, compliance, clinical coding and revenue cycle management.

**Prerequisite:** HIM 280.

**Credits:** 3

**Lecture:** 3

## **HIM 280 - ICD-10-CM/PCS Medical Coding**

**Description:** Principles of ICD-10-CM/PCS coding. Use and assignment of codes in compliance with federal, state and local rules and regulations. Coding conventions, features unique to ICD-10 and general and chapter specific guidelines to assure coding compliance. Assignment of accurate diagnostic and procedural codes using classroom materials and coding software applications.

**Prerequisite:** BIO 160 (or BIO 201 and BIO 202 ) and AHS 130 and HIM 110 and HIM 240 or hold one of these coding credentials: CCA, CCS, CCS-P, RHIT, RHIA, CPC or CPC-H.

**Credits:** 4

**Lecture:** 4

## **HIS 201 - Western Civilization I**

**Description:** Exploration of the major developments in Western Civilization to 1688. Exploration of the social, intellectual, political, economical, religious, and cultural components that form the core of the modern western world.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Global/Internal or Historical, Historical Perspective (AGEC), Intensive Writing

## **HIS 205 - World History**

**Description:** The history of world trade, world empires, and transcontinental migrations from the eighteenth through the twentieth centuries. Examination of the forces of change including industrial, communication and transportation revolutions. The rise of nationalism, militarization and economic globalization.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Global/Internal or Historical, Historical Perspective (AGEC), Intensive Writing

## **HIS 231 - United States History I**

**Description:** Survey of social, economic, political, and cultural history from pre-Contact through the Civil War. Emphasis on diverse scholarly interpretations of historical events and evidence. Examination of the continental approach to the development of the United States and the American people and their various contributions to America's shared past.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Global/Internal or Historical, Historical Perspective (AGEC), Intensive Writing

## **HIS 232 - United States History II**

**Description:** Survey of social, economic, political and cultural history from 1865 through the 1980s. Exploration of the diversity of the American people. Examination of Racism, Social Reform Movements, and Industrializing America. Emergence of America in global context.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Global/Internal or Historical, Historical Perspective (AGEC), Intensive Writing

## **HIS 296 - Internship: History**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **HIS 299 - Independent Study History**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **HOS 100 - Introduction to the Hospitality Industry**

**Description:** Overview of the hospitality industry, including the food service business, restaurants and hotels, and the meeting and conference industry. Includes hospitality industry management and leadership; human resources; marketing and promotion; franchising; and ethics in hospitality management.

**Credits:** 3

**Lecture:** 3

## **HOS 110 - Food Service Systems Management**

**Description:** Introduction to the various components of systematic food service management. Includes investigation of management principles, various management control methods, and critical operational functions.

**Credits:** 3

**Lecture:** 3

## **HOS 115 - Hospitality Front Office Procedures**

**Description:** Principles and procedures for front office operations in hotels and resorts. Includes classification of hotels, organizational structure, front office operations planning and evaluation, and human resources management. Incorporates reservations, registration, front office accounting, check out and settlement, night audit, and revenue management.

**Credits:** 3

**Lecture:** 3

## **HOS 120 - Meeting and Convention Management**

**Description:** Basic principles for planning and operating meetings, conventions, and trade shows. Includes types of events and their economic impact, meetings as a social phenomenon, and the role of the meeting planner. Introduces practical tools for preliminary planning and needs analysis, program design and budgeting, site selection, and on-site management.

**Credits:** 3

**Lecture:** 3

## **HOS 150 - Hospitality Property Management**

**Description:** Examination of planning, implementing, and monitoring the hospitality operation environment with the aim of enhancing the guest experience by fostering a proactive approach to compliance, conformance to standards and competitiveness. Includes design and layout of guestrooms, lobbies, food outlets, and recreation outlets as it pertains to maintenance and housekeeping; product and service analysis; inventory control; preventative maintenance; renovations; liability; protecting guests and their property; asset protections; grounds and landscaping; ecology; and transportation.

**Credits:** 3

**Lecture:** 3

## **HOS 195 - Hospitality Practicum**

**Description:** Work experience in the hospitality and tourism industry. Students are required to partner with an approved hospitality business and complete a minimum of 60 hours of experiential work experience.

**Prerequisite:** HOS 100 (May be taken concurrently).

**Credits:** 3

**Lecture:** 1

**Lab:** 4

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **HOS 200 - Hospitality: Financial Management**

**Description:** Study of financial statement analysis, asset management, ratio analysis, analytical techniques, and investment decision making. Emphasis on planning, budgeting, and management decisions.

Prerequisite: HOS 110 and HOS 100.

**Credits:** 3

**Lecture:** 3

## **HOS 243 - Foundations in Kitchen Operations**

**Description:** Application of the principles, procedures, and techniques involved in managing basic kitchen operations.

**Prerequisite:** HOS 110.

**Credits:** 3

**Lecture:** 3

**Lab:** 1

## **HOS 270 - Hospitality Information Technology**

**Description:** The impact of computers on the hospitality industry and the basic functions found in property and restaurant management systems. Emphasis on industry-specific applications.

**Prerequisite:** HOS 115.

**Credits:** 3

**Lecture:** 3

## **HOS 296 - Internship: Hospitality**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **HOS 299 - Independent Study Hospitality**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **HUM 100 - Gateway to the Humanities**

**Description:** Introduction to disciplines and careers in the Humanities, serving as an entry point for further study and as an introduction to the thinking skills necessary to succeed in college. Exploration of the fundamental issues and questions that span the Humanities, exploring the commonalities and specifics of each discipline, as well as how those fundamental issues relate to modern questions and problems. Includes transfer opportunities for earning a degree in a discipline of the Humanities and careers for humanities majors.

**Prerequisite:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **HUM 101 - Introduction to Popular Culture**

**Description:** Analyzing and evaluating the relationships among technological innovation, American consumer society, popular arts and ethical questions. Application of critical thinking skills to assess issues, identify influencing factors, and make informed decisions.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **HUM 202 - Introduction to Mythology**

**Description:** Examination of humanist questions through European and Non-Western mythologies. Issues include: creation of the world, cosmology, fertility/sexuality, human nature, the problem of evil, death, nature of gods/goddesses/God, and the natural world.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **HUM 205 - Technology and Human Values**

**Description:** Explores the relationship between technological development and individual and social values in the Western World from ancient times through the present. Includes technologies connected with a variety of areas, such as medicine, the military, architecture, food and agricultural production, and labor relations.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **HUM 236 - American Arts and Ideas**

**Description:** Cultural history of the United States from the Eighteenth Century to the present. Scholarly examination of the literature, philosophy, music, visual arts, and architecture.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **HUM 241 - Humanities in the Western World I**

**Description:** Cultural history of Western Civilization from Ancient Civilizations to the Fourteenth Century. Scholarly examination of the literature, philosophy, music, visual arts, and architecture.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **HUM 242 - Humanities in the Western World II**

**Description:** Cultural history of Western Civilization from Fifteenth to late Twentieth Century. Scholarly examination of the literature, philosophy, music, visual arts, and architecture.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **HUM 243 - History of Film**

**Description:** Historical and critical survey of the development of world cinema as an art form, as a system of communication, and as an industry from its invention to the present day. How films work technically, aesthetically, and culturally to create, reinforce, challenge, comment on or change social, political or aesthetic norms.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **HUM 248 - Introduction to Folklore**

**Description:** A cross-cultural introduction to the study of folklore. Focuses on the ways individuals and groups use artistic expression in everyday life - including storytelling, beliefs, songs, speech, dance, celebrations and artifacts - to address issues of identity, community, and tradition. Cross listed with ANT 248.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **HUM 250 - American Cinema**

**Description:** Survey of American film as an art form, an industry, and a system of representation and communication. Technical, aesthetic, and cultural aspects of cinema and the reading of film as a means for communicating American ideals, values and attitudes. This course is cross-listed with THR 250.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **HUM 260 - Intercultural Perspectives**

**Description:** Cultural, literary, and artistic expressions of Native Americans, Hispanic Americans, African American, and Asian Americans. Includes both traditional and modern work, issues of race, gender and ethnicity and contribution to American civilization.

**Prerequisite:** ENG 101 or ENG 103.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **HUM 296 - Internship: Humanities**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **HUM 299 - Independent Study Humanities**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **IPT 110 - Industrial Shop Practices**

**Description:** Basic skills needed to work in industrial repair and maintenance shops, emphasizing safe and efficient use of hand and power tools, fine measurement, tool maintenance and sharpening.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **IPT 120 - Industrial Pump Maintenance and Repair**

**Description:** Types of pumps and their associated piping systems as applied in industrial settings.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **IPT 130 - Industrial Valve Maintenance and Repair**

**Description:** Valves and their associated piping systems as applied in industrial settings.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **IPT 135 - Industrial Valve and Pump Maintenance and Repair**

**Description:** Diagnostic, repair and replacement procedures for industrial valves and pumps utilized in commercial industry settings.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **IPT 140 - Bulk Materials Handling**

**Description:** Operation, maintenance, and repair of industrial materials handling machinery including conveyors, feed and discharge devices, screens, and crushers.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **IPT 160 - Machinery Maintenance and Troubleshooting**

**Description:** Systematic methods of identifying causes of mechanical failure and using predictive methods to prevent mechanical failure.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **IPT 260 - Advanced Machinery Maintenance**

**Description:** Advanced maintenance procedures of heavy industrial machinery.

**Prerequisite:** IPT 160.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **IPT 261 - Machine Shop**

**Description:** Theory and practice in history, concepts, safety and job planning in the machine shop.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **IPT 295 - Apprenticeship: Industrial Plant**

**Description:** Supervised field experience.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 12 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **IPT 296 - Internship: Industrial Plant Technician**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **MGT 111 - Leadership & Innovation**

**Description:** Lead, motivate and inspire with leadership techniques to stimulate innovation.

**Credits:** 1

**Lecture:** 1

## **MGT 112 - Leadership & Collaboration**

**Description:** Basic techniques to increase team collaboration and strategies on how leaders effectively prioritize their time.

**Credits:** 1

**Lecture:** 1

## **MGT 113 - Leadership & Communication**

**Description:** Speaking skills and communication techniques for leaders.

**Credits:** 1

**Lecture:** 1

## **MGT 120 - Supervision Techniques**

**Description:** Supervisory techniques and skill building. Includes decision making, problem solving, motivational leadership, human resource management processes, conflict resolution, change management and team-building.

**Credits:** 3

**Lecture:** 3

## **MGT 132 - Ethics in Business**

**Description:** Techniques to analyze and resolve modern business ethics issues: legal issues, corporate social responsibility, worker's rights and responsibilities, technological issues, information and advertising.

**Credits:** 3

**Lecture:** 3

## **MGT 140 - Organizational Behavior**

**Description:** Study of basic business behavior patterns. Human aspects of business, as distinguished from economic and technical aspects, and how they influence efficiency, morale, and management practice.

**Credits:** 3

**Lecture:** 3

## **MGT 220 - Principles of Management**

**Description:** Principles of management that have general applicability to all types of enterprise; basic management philosophy and decision making; principles involved in planning, directing and controlling. Contemporary concepts in management.

**Credits:** 3

**Lecture:** 3

## **MGT 223 - Human Resource Management**

**Description:** Human resource theory and practice, planning, recruitment, placement, employee development, evaluation, benefits and services, health and safety, and employee relations.

**Credits:** 3

**Lecture:** 3

## **MGT 229 - Strategic Management**

**Description:** Examination of how the business organization constructs, organizes, extends, maintains, and renews its competitive advantage in the marketplace.

**Credits:** 3

**Lecture:** 3

## **MGT 230 - Principles of Marketing**

**Description:** Survey of marketing problems and possible solutions. Retail and wholesale areas with emphasis on the consumer's needs and relationship to marketing practices.

**Credits:** 3

**Lecture:** 3

## **MGT 231 - Social Media Marketing**

**Description:** Theory and practice in the use of social media in online marketing. Includes history of social media, preparation for social media marketing, and ways to engage with social media. Reviews platforms and marketing tools used to create social media campaigns.

**Credits:** 3

**Lecture:** 3

## **MGT 232 - Internet & Social Media Marketing**

**Description:** Social media in online marketing including platforms and marketing tools used to create social media campaigns.

**Credits:** 1

**Lecture:** 1

## **MGT 233 - Business Communication**

**Description:** Communication theory, writing for the workplace, business letters and reports, electronic communication, professional presentations and communicating for employment.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Applied Communication/Comm.

## **MET 100 - Introduction to Manufacturing Technology**

**Description:** Introduction to manufacturing technology including primary and secondary processes, 3D scanner & rapid prototyping, quality control and LEAN manufacturing principles. **Preparedness recommendation:** Two years of high school math and general computer literacy.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **MET 110 - Manufacturing Technology**

**Description:** Introduction to machine shop techniques to include familiarization with machining, welding, sheet metal forming and assembling.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **MET 116 - Rigging**

**Description:** Basic rigging techniques, hitch configurations, safe loading practices, load inspection, and American National Standards Institute (ANSI) approved hand signals. Use of slings and common rigging hardware.

**Credits:** 1

**Lecture:** 1

## **MET 150 - Surface Mine Safety Training**

**Description:** U.S. Mine Safety and Health Administration requirements for new miner training for individuals, contractors, and mine employees.

**Credits:** 1

**Lecture:** 1

## **MET 160 - Basic Machine Hydraulics and Pneumatics**

**Description:** Operational theory and testing techniques related to hydraulic and pneumatic components and circuits on mobile diesel equipment. Includes fluid power principles and investigates the functional characteristic of hydraulic pumps, flow valves, pressure valves, directional valves, motors, cylinders and accumulators. Emphasis on the student's ability to test, service, and repair diesel equipment hydraulic systems and system components.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **MET 296 - Internship: Manufacturing Engineering Technology**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **MET 299 - Independent Study Industrial Technology/Manufacturing**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **MAT 082 - Fundamentals of Mathematics**

**Description:** Review of basic arithmetic skills, introduction to geometric shapes and formulae, ratio and proportion, percents, measurement, and signed numbers.

**Credits:** 3

**Lecture:** 3

## **MAT 092 - Beginning Algebra**

**Description:** Solving linear equations and inequalities, graphs of linear equations, systems of linear equations and inequalities, exponents, basic operations on polynomials, an introduction to functions, and an introduction to mathematics technology. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 082 or a satisfactory score on the mathematics skills assessment.

**Credits:** 3

**Lecture:** 3

## **MAT 097 - Intermediate Algebra**

**Description:** Simplifying polynomial, rational and radical expressions; solving quadratic, rational and radical equations; introducing functions and their representations; applying mathematics in real-world contexts; and using appropriate technology. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 092 or a satisfactory score on the mathematics skills assessment. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MAT 100 - Technical Mathematics**

**Description:** Review of arithmetic skills, proportions, percentages, exponents, algebraic equations of the first degree, basic geometry, and literal equations with applications designed for the student's own field of study.

**Prerequisite:** MAT 082 or a satisfactory score on the mathematics skills assessment. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Quantitative Literacy

## **MAT 141 - College Mathematics with Review**

**Description:** Survey of mathematical topics and applications. Includes statistics, probability, exponential functions, finance, dimensional analysis and other selected discrete math topics with one hour per week of additional instruction provided by course instructor. Note: Computer use and graphing calculator required (TI-83/84 recommended).

Satisfactory score on the mathematics skills assessment. Reading Proficiency.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

**Course Attributes:** Quantitative Literacy

## **MAT 142 - College Mathematics**

### **MAT 1142.**

**Description:** Topics and applications in counting, probability, statistics, dimensional analysis, mathematical modeling, and consumer mathematics. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 092 or a satisfactory score on the mathematics skills assessment. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Quantitative Literacy, SUN# MAT 1142

## **MAT 152 - College Algebra**

### **MAT 1151.**

**Description:** Modeling of applications using linear, quadratic, exponential and logarithmic functions. Introduction to solving systems of equations using matrices. Note: Computer use and graphing calculator required (TI-83/84 recommended). Duplicate credit for MAT 152 and MAT 187 will not be awarded.

**Prerequisite:** MAT 097 or a satisfactory score on the mathematics skills assessment. Reading Proficiency.

**Credits:**

**Lecture:**

**Course Attributes:** Course Attributes: Quantitative Literacy, SUN# MAT 1151

3  
3

## **MAT 156 - Mathematics for Elementary Teachers I**

**Description:** Mathematical principles and processes specifically for elementary teachers. Includes problem solving, set theory, properties and operations with number systems. Note: Computer use required.

### **Prerequisite:**

MAT 142 or MAT 152 or satisfactory score on mathematics skills assessment.

**Credits:** 3

**Lecture:** 3

## **MAT 157 - Mathematics for Elementary Teachers II**

**Description:** Mathematical principles and processes specifically for elementary teachers. Includes geometry, measurement, statistics, and probability. Note: Computer use required.

Prerequisite: MAT 142 or MAT 152 or satisfactory score on mathematics skills assessment.

**Credits:** 3

**Lecture:** 3

## **MAT 167 - Elementary Statistics**

### **MAT 1160.**

**Description:** Statistical tools and techniques used in research and general applications. Description of sample data, probability and probability distributions, point and interval estimates of population parameters, hypothesis testing, and correlation and regression. Note: Computer use and graphing calculator required (TI-83/84 recommended).

Prerequisite: MAT 142 or MAT 152 or satisfactory score on mathematics skills assessment.

**Credits:**

**Lecture:**

**Course Attributes:** SUN# MAT 1160

3  
3

## **MAT 172 - Finite Mathematics**

**Description:** Various analytical methods employed in business, social and life sciences with an emphasis on applications. Topics include linear programming, matrix operations, system of linear equations, applications of simple, compound and continuous interest, counting, probability and statistics. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 152 or satisfactory score on mathematics skills assessment.

**Credits:** 3

**Lecture:** 3

## **MAT 187 - Precalculus**

### **MAT 1187.**

**Description:** Topics from college algebra and trigonometry essential to the study of calculus and analytic geometry. Includes linear, quadratic, polynomial, rational, exponential, circular, and trigonometric functions, trigonometry, systems of equations, and matrices. Note: Computer use and graphing calculator required (TI-83/84 recommended). Duplicate credit for MAT 152 and MAT 187 will not be awarded.

**Prerequisite:** MAT 097 or a satisfactory score on the mathematics skills assessment. Reading Proficiency.

**Credits:**

5

**Lecture:**

5

**Course Attributes:** Course Attributes: Quantitative Literacy, SUN# MAT 1187

## **MAT 212 - Topics in Calculus**

### **MAT 2212.**

**Description:** Introduction to the theory and techniques of differential and integral calculus of elementary functions with emphasis on applications in business and finance. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 152 or satisfactory score on mathematics skills assessment. Reading Proficiency.

**Credits:**

3

**Lecture:**

3

**Course Attributes:** Course Attributes: Quantitative Literacy, SUN# MAT 2212

## **MAT 220 - Calculus and Analytic Geometry I**

### **MAT 2220.**

**Description:** Introduction to calculus of single variable functions. Includes limits, the fundamental principles of differentiation and integration, techniques for finding derivatives of algebraic and trigonometric functions and applications of derivatives. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 187 or satisfactory score on mathematics skills assessment. Reading Proficiency.

**Credits:**

5

**Lecture:**

5

**Course Attributes:** Course Attributes: Quantitative Literacy, SUN# MAT 2220

## **MAT 230 - Calculus and Analytic Geometry II**

### **MAT 2230.**

**Description:** Concepts, techniques and applications of integration, infinite series, and introduction to differential equations. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 220.

**Credits:** 5

**Lecture:** 5

**Course Attributes:** SUN# MAT 2230

## **MAT 241 - Calculus III**

### **MAT 2241.**

**Description:** Multivariable calculus. Includes multiple integration, partial differentiation, optimization, vector calculus, line integrals, and parametric curves. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisite:** MAT 230

**Credits:** 4

**Lecture:** 4

**Course Attributes:** SUN# MAT 2241

## **MAT 262 - Elementary Differential Equations**

### **MAT 2262.**

**Description:** Introduction to ordinary differential equations. Includes first order linear equations, higher order linear equations, applications of first and second order equations, Laplace transforms, and systems of linear differential equations.

**Prerequisite:** MAT 241.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** SUN# MAT 2262

## **MAT 296 - Internship: Math**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **MAT 299 - Independent Study Mathematics**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **MTC 105 - Introduction to Motorcycle and UTV Technology**

**Description:** Basic theory and fundamentals of motorcycle and UTV maintenance and minor repair. Includes two- and four-stroke theory, brakes, frames, drive trains, electrical, suspension, fuel systems, and wheels.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **MTC 110 - Motorcycle Brakes, Suspension, Wheels and Tires**

**Description:** Theory and fundamentals of basic motorcycle brakes, suspension systems, wheels and tires.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **MTC 140 - Introduction to Motorcycle Electrical Systems**

**Description:** Basic motorcycle electrical theory, system maintenance, testing and diagnostic methods for repairing ignition, charging, and starting systems.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **MTC 210 - American Motorcycle Service Procedures**

**Description:** Procedures and techniques of regular service intervals for the American motorcycle enthusiast, with emphasis on Harley Davidson and aftermarket brands. Includes diagnosis and service of motorcycles.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **MTC 215 - Motorcycle and UTV Service Procedures**

**Description:** Common fundamental repairs most often needed in motorcycles and UTVs.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **MUS 101 - Private Music**

**Description:** Individual, self-paced instruction in piano, organ, voice, guitar, band or orchestra instruments. Open to all students in the college.

**Credits:** 1

## **MUS 103 - Piano Class I**

**Description:** A skill-building piano lab with an emphasis on piano playing and music reading.

**Credits:** 1

**Lab:** 3

## **MUS 104 - Piano Class II**

**Description:** Skill-building piano lab for students with limited piano experience. Emphasis on piano playing, music reading, and music theory.

**Prerequisite:** MUS 103.

**Credits:** 1

**Lab:** 3

## **MUS 105 - Voice Class I**

**Description:** Fundamentals of singing. Includes breath support and articulation while singing and introductory-level music reading.

**Credits:** 1

**Lab:** 3

## **MUS 106 - Voice Class II**

**Description:** Intermediate voice class designed to advance individual singing skills by study and training in singing technique, musicianship, diction, performance and in repertoire.

**Prerequisite:** MUS 105.

**Credits:** 1

**Lab:** 3

## **MUS 107 - Guitar Class I**

**Description:** Beginning instruction on acoustic guitar. Chords and chord strumming, note reading, finger styles and basic music theory. Opportunities to explore classical, folk, and blues styles of playing. No guitars provided.

**Credits:** 1

**Lab:** 2

## **MUS 108 - Guitar Class II**

**Description:** Emphasis on bar chords, note reading through the ninth position, double notes, and solos from classical, flamenco, or folk styles of playing.

**Prerequisite:** MUS 107.

**Credits:** 1

**Lab:** 2

**Repeatable:** (Repeatable for a total of 4 credit hours towards degree/certificate requirements.)

**Grading:** S/U grading only.

## **MUS 109 - Guitar Class III**

**Description:** Emphasis on repertoire, ensemble, sight reading, and performance. (Repeatable for a total of 4 credit hours towards degree/certificate requirements.)

**Prerequisite:** MUS 108.

**Credits:** 1

**Lab:** 2

## **MUS 110 - Concert Band**

**Description:** Instruction and performance of concert band literature in a group setting.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 111 - Symphonic Band**

**Description:** Open to all students in the College. Attendance at all rehearsals and participation in all public performances is required.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 113 - Big Band I**

**Description:** Rehearsal and performance of selected intermediate level jazz literature. Audition required. Additional required performances.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 2 credit hours towards degree/certificate requirements.]

## **MUS 114 - Big Band II**

**Description:** Rehearsal and performance of selected advanced level jazz literature. Audition required Additional required performances.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 2 credit hours towards degree/certificate requirements.]

## **MUS 115 - Instrumental Ensemble**

**Description:** Music reading skills, playing techniques, ensemble playing. Performance participation required. Audition required.

**Credits:** 1

**Lab:** 3

## **MUS 116 - Jazz Combo**

**Description:** Jazz music reading skills, playing techniques, ensemble playing. Performance participation required.

**Credits:** 1

**Lab:** 3

**Repeatable:** (Repeatable for a total of 4 credit hours towards degree/certificate requirements.)

## **MUS 117 - Symphony Orchestra**

**Description:** Symphony orchestra rehearsal and performance.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 129 - Music Fundamentals**

**Description:** Basic elements of music reading and notation as well as an aural component including identification and dictation. Designed for non-majors (hobbyist, church choir member, pop musician) or the musician with limited to no music reading skill.

**Credits:** 2

**Lecture:** 2

## **MUS 131 - Basic Integrated Theory I**

**Description:** Basic theory of music including part writing, ear training, sight singing, dictation and keyboard harmony. Review of musical notation, intervals, triads and scales. Part writing skills for root position, first and second inversion triads; sight singing and dictation skills through scale passages including intervals of 3rd and 4ths and simple beat divisions. Required of music majors.

**Credits:** 4

**Lecture:** 4

**Lab:** 1

## **MUS 132 - Basic Integrated Theory II**

**Description:** Correlating part writing, ear training, sight singing, dictation and keyboard harmony. Part writing skills in phrase structure and cadences, harmony progression, harmonization techniques and use of non-harmonic tones; sight singing and dictation skills through minor scale passages, intervals of 5ths through the octave and 16th note beat divisions. Required of music majors.

**Prerequisite:** MUS 131.

**Credits:** 4

**Lecture:** 4

**Lab:** 1

## **MUS 134 - Singing for the Actor**

**Description:** Study and development of the voice using the International Phonetic Alphabet (IPA) in English and Italian literature. An integrated approach to singing through transcription, pronunciation, analysis and performance of required repertoire.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **MUS 151 - Applied Music**

**Description:** Individual instruction in piano, organ, voice, guitar, band or orchestra instruments for music majors.

**Credits:** 2

## **MUS 190 - Oratorio:**

**Description:** Rehearsal and performance of selected choral selections from major choral works.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 198 - Music Topics:**

**Description:** Exploration of music techniques and expression.

**Credits:** 1-3

**Lecture:** 1-3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **MUS 203 - Piano Class III**

**Description:** Designed for students with some piano experience. Emphasis on advanced accompaniment skills.

**Prerequisite:** MUS 104.

**Credits:** 1

**Lab:** 3

## **MUS 204 - Piano Class IV**

**Description:** Designed for students with some piano experience. Emphasis on interpretation.

**Prerequisite:** MUS 203.

**Credits:** 1

**Lab:** 3

## **MUS 222 - Chamber Singers**

**Description:** Rehearsal and performance of selected choral literature. Membership by audition.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 223 - Vocal Ensemble**

**Description:** Rehearsal and performance of selected choral literature. No audition required.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 224 - Master Chorale**

**Description:** Rehearsal and performance of selected major choral literature. Membership by audition.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 225 - Community Chorale**

**Description:** Rehearsal and performance of selected choral literature. No audition required.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 226 - Chamber Choir**

**Description:** Rehearsal and performance of selected choral literature. Membership by audition.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 227 - Women's Chorale**

**Description:** Rehearsal and performance of selected choral literature. Audition required.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 228 - Gospel Choir**

**Description:** Rehearsal and performance of selected choral literature. Membership open with no audition required.

**Credits:** 1

**Lab:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **MUS 231 - Advanced Integrated Theory I**

### **MUS 2222.**

**Description:** Advanced theory of music correlating concepts of part writing, sight singing, ear training, dictation and keyboard harmony. Part writing skills using 7th chords, secondary dominants and altered non-harmonic tones, modulation and borrowed chords; sight singing and dictation skills through altered intervals and syncopated rhythms; keyboard skills realizing a figured bass. Required of music majors.

**Prerequisite:** MUS 132.

**Credits:** 4

**Lecture:** 4

**Lab:** 1

**Course Attributes:** Course Attributes: SUN# MUS 2222

## **MUS 232 - Advanced Integrated Theory II**

### **MUS 2223.**

**Description:** Correlating advanced concepts of part writing, sight singing, ear training, dictation and keyboard harmony. Part writing skills using augmented 6th chords, chromatic mediants and modulations to foreign keys, sight singing and dictation skills through two, three and four parts; keyboard skills realizing a figured bass. Required of music majors.

**Prerequisite:** MUS 231.

**Credits:** 4

**Lecture:** 4

**Lab:** 1

**Course Attributes:** Course Attributes: SUN# MUS 2223

## **MUS 240 - Music Appreciation**

**Description:** Explores the common elements of rhythm, melody, harmony, and form as they connect with the heritage of human understanding. Examines issues of universal human concern that are reflected in all styles of music from folk to classical.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **MUS 245 - Music of World Cultures**

**Description:** Cultural and historical ethnic music contributions throughout the world. Social, cultural and spiritual factors affecting music. Emphasis on listening skills, style characteristics, properties of sound and elements of music on various instruments.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **MUS 296 - Internship: Music**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Prerequisite: Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Lecture:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **MUS 299 - Independent Study Music**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **NSG 124 - Intravenous Therapy and Medication Administration for LPNs**

**Description:** Meets Arizona State Board of Nursing requirements for preparing a Licensed Practical Nurse to initiate, maintain, and discontinue intravenous therapy and administer selected medications by the IV route within the scope of LPN practice in Arizona. Includes legal aspects, complications of IV therapy, age-specific modifications, and nursing implications for administration of selected IV fluids and medications

**Prerequisite:** NSG 132 or Active license as Licensed Practical Nurse or Registered Nurse.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **NSG 131 - Foundations in Nursing I**

**Description:** Introduction to concepts of nursing roles, holistic approach to care, critical thinking and nursing process, pharmacology, nursing skill development, effective communication techniques, learning/teaching and legal, ethical, spiritual, and diversity/culture concepts. Physiological and psychological needs in health and illness including loss, grief and dying, and peri-operative care. Clinical experiences focus on holistic assessment and other selected skills in well defined practice settings.

**Prerequisite:** Admission to nursing program.

**Credits:** 8

**Lecture:** 5

**Lab:** 9

**Grading:** A-F grading only.

## **NSG 132 - Concepts in Nursing II**

**Description:** Introduction to commonly occurring health care concerns. Includes oncology overview, alterations in oxygenation and perfusion, endocrine, musculoskeletal, and gastrointestinal functions, and an introduction to management concepts.

**Prerequisite:** NSG 131 and BIO 202 and NTR 135.

**Credits:** 9

**Lecture:** 5

**Lab:** 12

**Grading:** A-F grading only.

## **NSG 210 - Pharmacology and Nursing Practice**

**Description:** Overview of pharmacological concepts and their relationship to nursing practice. Survey of selected drug classifications including drug actions, effects in maintaining or restoring homeostasis, side effects, adverse reactions, and application of critical thinking, including the nursing process, in the administration of medication and client teaching. Basic knowledge of chemistry, physiology and nursing recommended.

**Prerequisite:** NSG 131.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **NSG 231 - Concepts in Nursing III**

**Description:** Concepts of nursing care for clients with commonly occurring health care concerns with an emphasis on the developmental periods of infancy through adolescence. Advanced intravenous therapy. Uses nursing process format and integrates learning/teaching, psychosocial, diversity/cultural, spiritual, nutritional, pharmacological, legal, and ethical aspects. Clinical practicum includes management experience in well defined practice settings.

**Prerequisite:** ENG 102 and NSG 132 and PSY 245.

**Corequisite:** NSG 233.

**Credits:** 7

**Lecture:** 3

**Lab:** 12

**Grading:** A-F grading only.

## **NSG 232 - Concepts in Nursing IV**

**Description:** Concepts of nursing care for clients with commonly occurring health care concerns: Alterations in cardiac and neurological functioning and multisystem problems including shock and burns. Includes concepts of critical care and emergency/disaster nursing. Uses nursing process format and integrates learning/teaching, psychosocial, diversity/cultural, spiritual, nutritional, pharmacological, management, legal, and ethical aspects. Clinical practicum includes preceptorship experience in well defined practice settings. Use of Health Education Systems, Inc. (HESI) Exit Exam as a progression benchmark and remediation guide.

**Prerequisite:** BIO 205 and NSG 231 and NSG 233.

**Corequisite:** NSG 234 and NSG 235.

**Credits:** 5

**Lecture:** 2

**Lab:** 9

**Grading:** A-F grading only.

## **NSG 233 - Perinatal and Women's Health Nursing**

**Description:** Concepts of nursing care for the preconception, perinatal and postpartum family and neonate. Includes sexually transmitted diseases, men's reproductive and women's health issues.

**Prerequisite:** NSG 132.

**Corequisite:** NSG 231.

**Credits:** 2

**Lecture:** 2

**Grading:** A-F grading only.

## **NSG 234 - Psychiatric/Mental Health Nursing**

**Description:** Concepts of nursing care for clients throughout the life span with maladaptive psychosocial and physiological responses related to mental disorders. Uses nursing process format and integrates complex communication techniques, learning/teaching, psychosocial, diversity/cultural, spiritual, nutritional, pharmacological, legal and ethical aspects. Clinical practicum occurs in well-defined settings.

**Prerequisite:** NSG 132.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

**Grading:** A-F grading only.

## **NSG 235 - Nursing Management and Leadership**

**Description:** Exploration of healthcare and professional organizations, current trends in healthcare and effects of the political process on decision making. Emphasis on leadership and management skills required for collaboration with others on the healthcare team and how to incorporate research into an evidence-based practice.

**Prerequisite:** NSG 231.

**Credits:** 2

**Lecture:** 2

**Grading:** A-F grading only.

## **NSG 236 - Clinical Refresher**

**Description:** Clinical practicum including management experience in welldefined practice settings.

**Prerequisite:** NSG 231 and NSG 233 and BIO 205.

**Credits:** 2

**Lab:** 6

**Grading:** A-F grading only.

## **NSG 296 - Internship: Nursing**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **NSG 299 - Independent Study Nursing**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

**Grading:** A-F grading only.

## **NTR 135 - Human Nutrition**

**Description:** Principles of human nutrition including nutrient sources and physiological needs throughout the life cycle. Emphasis on role of nutrition in health and disease.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## **NTR 296 - Internship: Human Nutrition**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:**

Student must have a GPA of **2.0**; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **NTR 299 - Independent Study Human Nutrition**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **LAW 100 - Introduction to Paralegal Studies**

**Description:** Introduction to the role of the paralegal in the legal system, including the federal and state court systems, ethics, regulation and professional responsibility, legal analysis, research and basic legal concepts. Includes professional development and job search strategies.

**Credits:** 3

**Lecture:** 3

## **LAW 102 - Legal Computer Applications**

**Description:** Introduction to, and advanced application of, computer software applications used in a law office and the business community. Includes computer research tools, e-mail, application of general office management software to the legal environment, ethical considerations, and law office practice concepts, time and billing, calendaring, and docket control, case management, document management, litigation support, computer research tools, and ethical considerations.

**Prerequisite:** CSA 126.

**Credits:** 3

**Lecture:** 3

## **LAW 103 - Ethics and the Law**

**Description:** Ethical issues, cultural influences and moral theories as they relate to the legal profession. Origins and concepts of justice. State and national ethical codes and rules of professional responsibility. Ethical dilemmas and methods for researching answers. Professionalism and the unauthorized practice of law. Emphasis on critical thinking and values decision making.

**Credits:** 3

**Lecture:** 3

## **LAW 104 - Wills, Trusts and Probate**

**Description:** Critical issues, roles, and legal requirements in estate administration and pleadings.

**Credits:** 3

**Lecture:** 3

## **LAW 107 - Law Office Management**

**Description:** Processes and standards of law office management including record keeping, timekeeping, billing, calendaring and docket control. Emphasis on the principles and practices of law office management for manual and automated systems.

**Prerequisite:** CSA 126.

**Credits:** 3

**Lecture:** 3

## **LAW 202 - Real Estate Law**

**Description:** Overview of legal requirements and the documents and forms relating to real property transactions. Real estate purchase and sale, various methods of holding title to real property, mortgages, lease agreements, liens and declarations of homestead.

**Credits:** 3

**Lecture:** 3

## **LAW 203 - Family Law**

**Description:** Legal aspects of domestic matters and family relationships. Emphasis on dissolution of marriage, community property, child custody, child support and support calculations, adoptions, guardianships, state involvement in family and parent-child relationships, and statutes relating to families and family relationships.

**Credits:** 3

**Lecture:** 3

## **LAW 204 - Business Organizations**

**Description:** Legal requirements of corporations, partnerships, LLCs, and sole proprietorships.

**Credits:** 3

**Lecture:** 3

## **LAW 205 - Contracts**

**Description:** General principles of the law of contracts and drafting of agreements, negotiable instruments, and sales.

**Credits:** 3

**Lecture:** 3

## **LAW 217 - Legal Research & Writing I**

**Description:** Principles and techniques for conducting legal research. Emphasis on sources of law, utilization of primary and secondary sources, and case briefing. Extensive practice in writing research memoranda.

**Prerequisite:** LAW 100

**Credits:** 3

**Lecture:** 3

## **LAW 218 - Legal Research and Writing II**

**Description:** Application of research and writing skills in responding to complex legal issues and preparing complex legal documents.

Prerequisite: LAW 217

**Credits:** 3

**Lecture:** 3

## **LAW 220 - Civil Tort Litigation I**

**Description:** Principles and procedures of civil litigation. Jurisdiction and venue, parties to action, and pleadings. Introduction to drafting of documents required from inception of civil action through the pleading stage, up to trial.

Prerequisite: LAW 100

**Credits:** 3

**Lecture:** 3

## **LAW 221 - Civil Tort Litigation II**

**Description:** Study of the civil litigation process. Includes trial preparation, trial, evidence, and appeal.

Prerequisite: LAW 220.

**Credits:** 3

**Lecture:** 3

## **LAW 296 - Internship: Paralegal Studies**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **LAW 298 - Special Legal Topics**

**Description:** Introduction to a special legal topic and the role of the paralegal in the critical issues and requirements of the legal specialty area.

**Credits:** 3

**Lecture:** 3

**Repeatable:** [Repeatable for a total of 4 credit hours towards degree/certificate requirements.]

## **LAW 299 - Independent Study Paralegal Studies**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **PHT 100 - Fundamentals of Pharmacy Technology**

**Description:** Overview of basic sciences including microbiology and chemistry. Introduction to major drug classifications, dosage forms, and routes of administration. Medical terminology and abbreviations.

**Prerequisite:** Program admission. Reading proficiency.

**Corequisite:** PHT 110.

**Credits:** 3

**Lecture:** 3

## **PHT 110 - Pharmaceutical Calculations**

**Description:** Conversions and calculations used by pharmacy technicians.

**Prerequisite:** Program admission. MAT 082 or higher or skills assessment.

**Corequisite:** PHT 100.

**Credits:** 3

**Lecture:** 3

## **PHT 120 - Pharmacy Practice**

**Description:** Overview of pharmacy history, pharmacy laws and ethics, role of the pharmacy technician, drug information resources, pharmacy inventory, billing, and safety.

**Prerequisite:** PHT 110.

**Corequisite:** PHT 125.

**Credits:** 4

**Lecture:** 4

## **PHT 125 - Pharmacology**

**Description:** Relationships among anatomy and physiology, disease states, and drugs affecting body systems. Overview of pharmacology.

**Prerequisite:** PHT 110.

**Corequisite:** PHT 120.

**Credits:** 4

**Lecture:** 4

## **PHT 200 - Pharmacy Technician Certification Review**

**Description:** Review of standard subject materials in preparation for the Pharmacy Technician Certification Board (PTCB) Examination.

**Prerequisite:** PHT 125.

**Corequisite:** AHS 296.

**Credits:** 3

**Lecture:** 3

## **PHI 101 - Introduction to Philosophy**

### **PHI 1101.**

**Description:** Introduction to major philosophical concerns in the history of Western thought, including ethics, social philosophy, logic, epistemology, and philosophy of religion.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), SUN# PHI 1101

## **PHI 103 - Introduction to Logic**

### **PHI 1103.**

**Description:** Examination of meaning and definition, deduction and induction, fallacies, and the structure and classification of arguments. Exercises in recognizing arguments, informal fallacies, and formal techniques for evaluating deductive arguments. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC), SUN# PHI 1103

## **PHI 105 - Introduction to Ethics**

**Description:** Introduction to the philosophical study of morality, including theories of right and wrong behavior, moral responsibility, moral motivation, and the nature of good and evil.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **PHI 110 - Introduction to Critical Thinking**

**Description:** Fundamentals of critical thinking, including logic, argument, biases, and assumptions. Application of critical thinking strategies to contemporary issues and practical problem solving.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **PHI 122 - Science, Religion and Philosophy**

**Description:** Exploration of science, religion, and philosophy through historic and contemporary times. Examination of the goals and methods of these disciplines with special emphasis on their interactions and mutual influences. Accent on the Western traditions, with references to others as appropriate.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC)

## **PHI 204 - Ethical Issues in Health Care**

**Description:** Study of selected moral theories and principles with emphasis on application to ethical issues in health care. Integrates values exploration and moral reasoning and decision making.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **PHI 210 - Environmental Ethics and Philosophy**

**Description:** Examination of key thinkers, issues, and various philosophic perspectives about the appropriate relationship of humans to the natural environment through Western history and modern times. Introduction to theoretical and practical dimensions of ecophilosophy.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **PHI 296 - Internship: Philosophy**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **PHI 299 - Independent Study Philosophy**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **PHE 100B - Karate**

**Description:** Fundamentals of karate. Emphasis on self defense techniques, fitness and wellness. Includes individualized progression through degrees/belts.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 100D - T'ai Chi Chih**

**Description:** Gentle movements practiced for health, self-awareness and relaxation.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 100E - T'ai Chi Ch'uan**

**Description:** T'ai Chi Ch'uan, ancient Chinese martial movement art form practiced for health, relaxation, meditation, self-cultivation and self-defense. Wu-family form consisting of 94 postures. System of rounded, fluid and balanced movements, played slowly in a continuous manner. Suitable for all fitness levels.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 100F - Hatha Yoga**

**Description:** Introduction to Yoga and Meditation. Explore Hatha Yoga, practice breathing exercises, yoga poses and relaxation techniques.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 100G - Intermediate Yoga**

**Description:** Hatha Yoga to increase strength, flexibility, focusing ability, balance and relaxation.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 100L - Meditations for Well-Being**

**Description:** Experiential exercises for mind/body connection to enhance understanding of the factors that contribute to relaxation, emotional stability, reduction in anxiety, enhanced focus and increased well-being. Techniques to live, love, study and work creatively in the face of stress, adversity and/or change.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 105 - Fitness Workshop**

**Description:** Fitness Workshop. Application of fitness principles, adherence strategies and safety principles.

**Credits:** .5

**Lab:** 1

**Grading:** S/U grading only.

## **PHE 105A - Fitness Workshop: Aqua Fit**

**Description:** Application of fitness principles, adherence strategies and safety principles through aquatics exercise. Works all fitness components: cardiovascular endurance, muscular strength and flexibility.

**Credits:** .5

**Lab:** 1

**Grading:** S/U grading only.

## **PHE 105B - Fitness Workshop: Aqua Pilates**

**Description:** Application of fitness principles, adherence strategies and safety principles through aquatics exercise. Emphasis on improving core stabilization, strengthening major muscle groups and increasing flexibility.

**Credits:** .5

**Lab:** 1

**Grading:** S/U grading only.

## **PHE 105C - Fitness Workshop: Stand-Up Paddleboard Yoga/Pilates**

**Description:** Application of fitness adherence strategies and safety principles through exercise. Emphasis on improving core stabilization, strengthening major muscle groups, increasing flexibility, balance, yoga poses and relaxation techniques.

**Credits:** .5

**Lab:** 1

**Grading:** S/U grading only.

## **PHE 105D - Fitness Workshop: Yogalates**

**Description:** Application of fitness principles, adherence strategies and safety principles through exercise. Emphasis on improving core stabilization, strengthening major muscle groups, increasing flexibility, balance, yoga poses and relaxation techniques.

**Credits:** .5

**Lab:** 1

**Grading:** S/U grading only.

## **PHE 105E - Fitness Workshop: Crosstraining**

**Description:** Application of fitness principles, adherence strategies and safety principles through exercise. Emphasis on muscle definition, strength and endurance.

**Credits:** .5

**Lab:** 1

**Grading:** S/U grading only.

## **PHE 110A - Stretch and Flex**

**Description:** Flexibility and stretching exercises to improve posture, increase joint flexibility, and reduce stress reactions.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110B - Total Body TABATA**

**Description:** Total Body TABATA is a popular form of high-intensity interval training (HIIT). Consisting of eight rounds of high intensity exercises in a specific 20-seconds-on, 10-seconds-off interval, this fitness program is proven to burn more fat and get you fitter faster! Class works for all fitness and ability levels. Emphasis on cardio, muscle sculpting and flexibility.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110C - Pilates, Mat Flex & Ball**

**Description:** Group exercise activities using stability and medicine balls, flat bands, body bars, mat and floor exercises and Pilates movements. Emphasis on improving core stabilization, strengthening major muscle groups and increasing flexibility.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110D - Aerobic Kickboxing**

**Description:** High intensity cardio and muscular strengthening workout. Combination of martial art style Tae Kwon Do with kicking and boxing moves.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110E - Cardio Mix**

**Description:** Aerobic program for all fitness components. Emphasis on cross training activities.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110I - Total Body Conditioning**

**Description:** Ultimate training program using resistive and balance tools: bars, balls, and bosu balls. Emphasis on cardio, muscle sculpting and flexibility.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110L - Neuromuscular Integrative Action (NIA)**

**Description:** Sensory-based movement practice that blends the dynamic power of the marital arts, the creative expression of the dance arts and the inner awareness of the healing arts.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110P - Power Pilates and Barre Fitness**

**Description:** Pilates, ballet barre and fitness training exercises to strengthen and lengthen muscles for improved posture, tighter abs, stronger arms and a toned backside.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110Q - Zumba**

**Description:** High energy Latin dance inspired exercise utilizing principles of aerobic, interval and resistance training.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110R - Pumping Iron**

**Description:** Weight training choreographed to music using free weights and body bars. Emphasis on muscle definition, strength and endurance. All muscle groups challenged.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110S - Cardio Core**

**Description:** High energy class combining a variety of aerobic activities for cardiovascular training coupled with exercises designed to increase core strength.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 110U - Power Pilates and Barre Fitness**

**Description:** Pilates, ballet barre and fitness training exercises to strengthen and lengthen muscles for improved posture, tighter abs, stronger arms and a toned backside.

**Credits:** .5

**Lab:** 1

**Grading:** S/U grading only.

## **PHE 120A - Aqua Fit**

**Description:** Water training program, works all fitness components: Cardiovascular endurance, muscular strength and endurance, and flexibility. All fitness levels, swimmers, and non-swimmers.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 120B - Water Cross Training**

**Description:** Variable water training methods, including interval training, boot camp, and circuit training. Water training equipment is used to enhance muscular strength and endurance and aerobic capacity. The use of buoyancy equipment for deep water training is encouraged, but not mandatory. For all fitness levels, swimmers and non-swimmers.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 120C - Swimming Fitness**

**Description:** Swim activities using fitness principles. Emphasis on improving fitness level.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 120F - Warm Water Exercise**

**Description:** Water exercise for students with conditions requiring warm water.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 130A - Fitness, Machine and Free Weight Training**

**Description:** Introduction to cardiorespiratory fitness, strength training exercises, and flexibility training.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 130C - Senior Fitness/Weight Training**

**Description:** Senior fitness with emphasis on principles and techniques of cardiorespiratory, muscular strength and endurance and flexibility training.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 130H - Weight Management**

**Description:** Weight control through nutrition and exercise. Application of principles of nutrition, and exercise for weight management programming.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **PHE 130J - Weight Loss and Health with Whole Food**

**Description:** Weight loss and health benefits through lifestyle improvements in plant based nutrition with the study of food addiction and recovery.

**Credits:** 2

**Lecture:** 2

## **PHE 130K - Therapeutic Exercise for Post Injury Fitness**

**Description:** Exercises and pain management strategies designed to aid individuals with recent and/or old injuries or illnesses. Emphasis on strength training, range of motion, and balance techniques in order to return to an active lifestyle and physical activity. Not intended to replace physical therapy.

**Credits:** 1

**Lab:** 2

## **PHE 130P - Power & Olympic Lifting for Athletic Populations**

**Description:** Introduction to intense musculoskeletal weight training utilizing power and Olympic lifts such as bench press, squats, Russian dead lifts, power cleans and others.

**Credits:** 1

**Lab:** 2

## **PHE 140B - Basketball**

**Description:** Fundamentals of basketball. Emphasis on basic rules, offensive and defensive techniques and tactics, and sportsmanship.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 140G - Tennis**

**Description:** Fundamentals of tennis. Emphasis on basic stroke production, rules and tactics.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 150 - Prevention of Athletic Injuries and Emergency Care**

**Description:** Introduction to prevention of athletic injuries and conditions. Includes use of protective equipment, taping, nutrition, exercise, First Aid principles, legal implications, research and practical considerations.

**Credits:** 3

**Lecture:** 3

## **PHE 151 - Introduction to Exercise Science and Physical Education**

**Description:** Survey of the disciplines of exercise science, physical education and kinesiology. Includes historical perspective of the integrative nature of the disciplines, the importance of physical activity, qualifications and careers. Three lecture.

**Credits:** 3

**Lecture:** 3

## **PHE 152 - Personal Health and Wellness**

**Description:** Explore issues related to health and wellness. Emphasis on current topics and individual choices affected by psychological, sociological and environmental factors.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **PHE 153 - First Aid/CPR/AED and Safety**

**Description:** Instruction, theory and practice in first aid/CPR/AED and safety. Upon successful completion, students receive certification from the American Heart Association or American Red Cross.

**Credits:** 2

**Lecture:** 2

## **PHE 153A - American Red Cross CPR**

**Description:** Basic Cardiopulmonary Resuscitation CPR. Emphasis on skills for adult, child and infant CPR including Automatic External Defibrillator. Preparation for the American Red Cross Certification requirements.

**Credits:** 1

**Lecture:** 1

## **PHE 154 - Theory of Coaching**

**Description:** Introduction to the coaching profession with emphasis on the breadth of knowledge, theories and techniques of coaching and their application to achieving objectives in working with athletes.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **PHE 157 - Nutrition for Health, Fitness and Sport**

**Description:** Basic nutritional concepts for overall health and wellness. Includes practical application to fitness and sport performance.

**Credits:** 3

**Lecture:** 3

## **PHE 168 - Introduction to Sport Psychology**

**Description:** Introduction to the interaction between psychological variables and exercise, physical activity and sport performance. Psychological theory and practical skills that influence and enhance performance.

**Credits:** 3

**Lecture:** 3

## **PHE 200 - Introduction to Mindfulness Meditation and Self-Compassion**

**Description:** Introduction to the theory, practice, and techniques of mindfulness meditation and self-compassion. Focus is on practices and complementary activities which cultivate clear awareness to the present moment with self-acceptance. Includes science-based evidence supporting practice techniques and associated health benefits.

**Credits:** 1.5

**Lecture:** 1.5

**Grading:** S/U grading only.

## **PHE 200F - The Path of Yoga**

**Description:** Introduction to Yoga history and philosophy. Practice of Hatha Yoga and meditation.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **PHE 205 - Stress Management**

**Description:** Theories and principles of stress with an emphasis on interventions and techniques to manage stress. Application and practice of various stress management techniques to lifestyle, occupational, personal, and age-related issues.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **PHE 220E - Competitive Swimming**

**Description:** Fundamentals of competitive swimming. Emphasis on training for competition.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 228 - Lifeguard Training**

**Description:** Lifeguarding techniques. Meets American Red Cross standards.

**Credits:** 2

**Lecture:** 2

**Grading:** S/U grading only.

## **PHE 230B - Advanced Weight Training**

**Description:** Resistive exercises for specific muscles and muscle groups. Emphasis on program design, implementation and evaluation.

**Prerequisite:** PHE 130A.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **PHE 251 - Integrated and Applied Exercise Sciences**

**Description:** Study of Exercise Sciences and related topics as they impact exercise. Emphasis on anatomy, physiology, kinesiology, and nutrition. Designed for students preparing to become personal trainers, fitness instructors, coaches or Physical Education majors.

**Credits:** 3

**Lecture:** 3

## **PHE 252 - ACE Personal Trainer Preparation**

**Description:** Comprehensive system for designing individualized programs based on individual client health, fitness level and goals. Includes methods to facilitate rapport, adherence and self-efficacy in clients as well as design programs to help clients to improve posture, movement, flexibility, balance, core function, cardiorespiratory fitness, and muscular endurance and strength. Preparation for the ACE (American Council on Exercise) Personal Trainer Certificate Exam.

**Credits:** 3

**Lecture:** 3

## **PHE 296 - Internship: Physical Education**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Prerequisite: Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **PHE 299 - Independent Study Physical Education**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

**Grading:** S/U grading only.

## **PHY 100 - Introduction to Astronomy**

**Description:** Cycles of the sky, astronomical observations, history of astronomy, gravitation, light, optical instruments, stellar evolution and classification, galaxies , cosmological theories, survey of the solar system, and life in the universe. Preparedness Recommendations: one year of high school algebra or passing grade in MAT 092 or satisfactory score on mathematics skills assessment.

**Prerequisite:** Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science

## **PHY 111 - General Physics I**

### **PHY 1111.**

**Description:** Topics include: time and motion studies, forces on stationary and moving objects, waves and sound, heat and energy. Designed for architecture, forestry, pre-med, pre-vet, pharmacy and education students.

**Prerequisite:** MAT 187 or MAT 152 and MAT 183 . MAT 187 is strongly recommended. Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Course Attributes: Physical & Biological Science, SUN# PHY 1111

## **PHY 112 - General Physics II**

PHY 1112.

**Description:** Electricity, magnetism, light, physical optics, geometric optics, and atomic structure. Designed for pre-med, pre-vet, and pharmacy students.

**Prerequisite:** PHY 111. Reading Proficiency.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

**Course Attributes:** Physical & Biological Science, SUN# PHY 1112

## **PHY 150 - Physics for Scientists and Engineers I**

PHY 1121.

**Description:** Principles of mechanics. Kinematics, dynamics, systems of particles, equilibrium, fluids, gravitation, and oscillations, with calculus applications. For engineering and physics majors.

Prerequisite: MAT 220. One year of high school physics or PHY 111/PHY 112 is strongly recommended. Reading Proficiency.

**Credits:** 5

**Lecture:** 4

**Lab:** 3

**Course Attributes:** Physical & Biological Science, SUN# PHY 1121

## **PHY 151 - Physics for Scientists and Engineers II**

PHY 1131.

**Description:** Waves and sound, electromagnetism, circuits, electromagnetic waves, and Maxwell's equations, with calculus applications. For engineering and physics majors.

Prerequisite: MAT 230 and PHY 150. Reading Proficiency.

**Credits:** 5

**Lecture:** 4

**Lab:** 3

**Course Attributes:** Physical & Biological Science, SUN# PHY 1131

## **PHY 196 - Directed Research: Physics**

PHY 1131

**Description:** Faculty or mentor directed student research in an area of current scientific investigation culminating in a final report, paper, or presentation. Students will work in the lab or in the field to gain the intellectual, technical, and practical skills necessary to further the knowledge base in an area of scientific investigation with the objective of contributing to the professional body of scientific knowledge.

**Credits:** 1-3

## **PHY 296 - Internship: Physics**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** Repeatable for a total of 6 credit hours towards degree/certificate requirements.

**Grading:** S/U grading only.

## **PHY 299 - Independent Study Physics**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **PPT 120 - Energy Industry Fundamentals**

**Description:** Commercially used fuels and power sources and their conversion to useable energy, with a focus on generated electrical power and its transmission and distribution to the point of use. Includes exploration of the energy industry, safe and healthy work environments, natural gas transmission and distribution, and career/entry requirements. Preparation for the Energy Industry Fundamentals (EIF) Certification exam.

**Credits:** 3

**Lecture:** 3

## **PSY 101 - Introductory Psychology**

PSY 1101.

**Description:** Introduction to psychology through such topics as the scientific method in psychology, survey of different fields in psychology, heredity and environment, intelligence, emotions, motivation, nervous system, and learning processes.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC), SUN# PSY 1101

## **PSY 132 - Cross Cultural Psychology**

**Description:** Impact of culture on the study of psychology. The role of culture in perceptual and cognition processes, human development, and social behavior. Includes issues such as intergroup relations, ethnocentrism, gender, personality, emotion, language, and communication.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC), Ethnic, Race & Gender

## **PSY 175 - Counseling Skills**

**Description:** Principles and practices which underlie the effective and ethical use of the helping relationship in human services

**Credits:** 3

**Lecture:** 3

## **PSY 176 - Coaching for Managers**

**Description:** Introduction to the basic skills and application of coaching to management.

**Credits:** 1

**Lecture:** 1

## **PSY 210 - Brain and Behavior**

**Description:** Investigation of the human brain and how it affects our behavior. Includes optical illusions, hallucinations, phantom limb, biological drives and the ability to remember and forget. Observable behavior in mental disorders such as schizophrenia and anxiety, the chemical processes in the brain, and the effects of illegal and prescription drugs on the human body and its various systems.

Prerequisite: PSY 101.

**Credits:** 3

**Lecture:** 3

## **PSY 220 - Social Service Case Management**

**Description:** Fundamental principles and mechanics of case management. Includes various models, processes and functions, and historical context. Emphasis on development of interpersonal skills.

Prerequisite: PSY 101 or PSY 175.

**Credits:** 3

**Lecture:** 3

## **PSY 222 - Fundamentals of Professional and Life Coaching**

**Description:** Introduction to the theory and practice of life, relationship and career coaching as a profession. Prepares students for certification by the International Coach Federation (ICF), the major credentialing body for professional coaching.

Prerequisite: Any SOC or PSY course.

**Credits:** 4

**Lecture:** 4

## **PSY 223 - Advanced Coaching Perspectives and Techniques**

**Description:** Theoretical perspectives and techniques for professional coaching, focusing on particular contexts - group, relationship, leadership, executive and business coaching.

**Prerequisite:** PSY 222.

**Credits:** 4

**Lecture:** 4

## **PSY 230 - Introduction to Statistics in the Social and Behavioral Sciences.**

**Description:** Basic concepts of statistical analysis and design in social and behavioral science research. This course is crosslisted with SOC 230.

**Prerequisite:** MAT 142 or MAT 152 or satisfactory score on the mathematics skills assessment.

**Credits:** 3

**Lecture:** 3

## **PSY 232 - Psychology of Personal Growth**

**Description:** Principles and practices of mental health and personal adjustment as they relate to personality development, growth and deterioration.

**Credits:** 3

**Lecture:** 3

## **PSY 234 - Child Development**

**Description:** Children's development from conception through childhood. Includes prenatal, brain, physical, sensory, cognitive, language, emotional, social, and moral development, as well as genetics and cultural influences. This course is cross-listed with ECE 234.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **PSY 238 - Psychology of Play**

**Description:** Importance of play on cognitive, physical, social, and emotional development throughout the lifespan. Exploration of the benefits of play with respect to fostering creativity, personal expression, and a sense of well being. Appreciation of play activities as a reflection of culture, gender, and social class.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC), Ethnic, Race & Gender

## **PSY 240 - Personality Development**

**Description:** Study of normal personality development with emphasis on the analysis of classic and contemporary theories of personality structure and dynamics.

**Prerequisite:** PSY 101 or PSY 232. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **PSY 241 - Substance Abuse**

**Description:** Study of the physical, social, and psychological effects of substance abuse. The effects of substance abuse on the criminal justice system.

**Credits:** 3

**Lecture:** 3

## **PSY 245 - Human Growth and Development**

**Description:** Study of physical, intellectual, moral, emotional, personality, and social development of the human being, beginning with conception and continuing through childhood, adolescence, adulthood, old age, and dying. Emphasis on quantitative and qualitative ways people change throughout the life span and factors which contribute to human diversity as well as to individual uniqueness. Research methods appropriate to the study of human development are also considered.

Prerequisite: Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC)

## **PSY 250 - Social Psychology**

**Description:** The study of how our thoughts, feelings, and actions are affected by our social environment. Emphasis on prejudice, conformity, altruism, interpersonal interaction, and the influence of the media.

Prerequisite: PSY 101.

**Credits:** 3

**Lecture:** 3

## **PSY 260 - Child Guidance**

**Description:** Relationship-based proactive strategies to promote pro-social development of children. Exploration of theoretical foundations related to child development and implementation of a positive strength-based guidance approach to foster self-control, an organized classroom environment, development of pro-social skills, and to address persistent and challenging behaviors. This course is cross-listed with ECE 260.

**Credits:** 3

**Lecture:** 3

## **PSY 262 - Crisis and Trauma Intervention**

**Description:** Impact of critical and traumatic events on daily and long-term psychological and physical functioning. Emphasis on intervention strategies.

**Prerequisite:** PSY 101 or PSY 175.

**Credits:** 3

**Lecture:** 3

## **PSY 266 - Abnormal Psychology**

**Description:** Behavioral disorders including current terminology, theories, and research. Emphasis on the characteristics, causes and treatment of abnormal behavior.

**Prerequisite:** PSY 101.

**Credits:** 3

**Lecture:** 3

## **PSY 270 - Dream Interpretation**

**Description:** Introduction to use of dream interpretation as a means to explore internal psychological processes. Examination of theories and the application of each theory as a therapeutic tool. Comprehension of the dream as a personal message that can be interpreted through understanding and application of dream symbolism.

**Credits:** 3

**Lecture:** 3

## **PSY 275 - Group Skills and Processes**

**Description:** Application of concepts and techniques appropriate to the stages of a group's development. Emphasis on a group process in action.

**Prerequisite:** PSY 175.

**Credits:** 3

**Lecture:** 3

## **PSY 277 - Human Sexuality**

**Description:** Introduction to the physical, social, cognitive and cultural issues to human sexuality, including sexual health, gender, orientations, pathology and treatments. Examination of the facts and myths, current literature, and changing norms regarding human sexuality.

Prerequisite: ANT 102 or PSY 101 or PSY 245 or SOC 101. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Behavioral Science (AGEC), Ethnic, Race & Gender

## **PSY 290 - Research Methods**

**Description:** Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research. Cross-listed with SOC 290.

**Prerequisite:** PSY 101.

**Credits:** 4

**Lecture:** 4

## **PSY 296 - Internship: Psychology**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility. Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **PSY 299 - Independent Study Psychology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **ICE 100 - Computed Tomography Certification**

**Description:** Foundations of computed tomography (CT) scanning principles with respect to patient safety, instrumentation, protocols, scanning parameters, cross-sectional anatomy and pathology.

**Corequisite:** ICE 110.

**Credits:** 3

**Lecture:** 3

## **ICE 110 - Computed Tomography Clinical Education I**

**Description:** Clinical instruction in computed tomography (CT) including system operation and components, image formation and reconstruction, characteristics of image quality, artifact recognition/reduction, CT exam protocols and patient care.

**Corequisite:** ICE 100.

**Credits:** 3

**Lab:** 9

## **ICE 200 - Magnetic Resonance Certification**

**Description:** Foundations of magnetic resonance (MR) scanning principles with respect to patient safety, instrumentation, protocols, scanning parameters, cross-sectional anatomy and pathology.

**Corequisite:** ICE 210.

**Credits:** 3

**Lecture:** 3

## **ICE 210 - Magnetic Resonance Clinical Education I**

**Description:** Clinical instruction in magnetic resonance (MR) imaging including system operation and components, image formation and reconstruction, characteristics of image quality, artifact recognition/reduction and MR exam protocols and patient care.

**Corequisite:** ICE 200.

**Credits:** 3

**Lab:** 9

## **RAD 100 - Foundations of Radiologic Science**

**Description:** Foundations in radiography and the practitioner's role in the health care delivery system. Includes an examination of the healthcare establishment, radiography education and related organizational topics, ethical and legal considerations, basic radiation protection and patient care principles.

**Prerequisite:** Admission to the Radiologic Technology program. Reading Proficiency.

Corequisite: RAD 110 and RAD 120 and RAD 170.

**Credits:** 2

**Lecture:** 2

**Grading:** A-F grading only.

## **RAD 110 - Radiographic Positioning and Image Analysis I**

**Description:** Fundamentals of radiographic positioning for the upper and lower extremities, shoulder girdle, chest, pelvis, pelvic girdle, abdomen, cranium and basic mobile radiography.

**Prerequisite:** Admission to the Radiologic Technology program. Reading Proficiency.

Corequisite: RAD 100 and RAD 120 and RAD 170.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

**Grading:** A-F grading only.

## **RAD 120 - Radiographic Technique I**

**Description:** Fundamentals of image production, processing, film imaging with related accessories and image analysis based on technical imaging standards.

**Prerequisite:** Admission to the Radiologic Technology program. Reading Proficiency

Corequisite: RAD 100 and RAD 110 and RAD 170.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **RAD 135 - Radiation Physics and Equipment**

**Description:** Radiation production and characteristics. Includes fundamentals of atomic structure, concepts related to radiation and photon interactions with matter. Basics of imaging systems and quality control.

Prerequisite: RAD 170.

Corequisite: RAD 140 and RAD 150 and RAD 160.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **RAD 140 - Radiographic Positioning and Image Analysis II**

**Description:** Fundamentals of radiographic positioning of the vertebral column, cranium and bony thorax. Emphasis on contrast studies of urinary and digestive systems, and imaging during trauma and surgery. Includes procedural considerations for arthrography, myelography, venography and age specific imaging.

Prerequisite: RAD 170.

Corequisite: RAD 135 and RAD 150 and RAD 160.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

**Grading:** A-F grading only.

## **RAD 150 - Radiographic Technique II**

**Description:** Principles and operation of digital imaging systems with an emphasis on image acquisition, display, archiving and retrieval. Includes principles of digital system quality assurance and maintenance.

Prerequisite: RAD 170.

Corequisite: RAD 135 and RAD 140 and RAD 160.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **RAD 160 - Radiology Clinical Education I**

**Description:** Orientation to the clinical environment. Supervised clinical assignments focus on a progressive structure of observation, assistance and completion of a semester benchmark of selected radiographic competencies. Competency based experiences support the acquisition of elementary patient care and radiographic positioning skills.

**Prerequisite:** RAD 170.

**Corequisite:** RAD 135 and RAD 140 and RAD 150.

**Credits:** 3

**Lab:** 9

**Grading:** A-F grading only.

## **RAD 170 - Radiology Patient Care**

**Description:** Concepts of patient care with consideration for the physical and psychological needs of the patient and family. Includes routine and emergency patient care procedures, infection control procedures and patient education.

**Prerequisite:** Admission to the Radiologic Technology program. Reading Proficiency.

**Corequisite:** RAD 100 and RAD 110 and RAD 120.

**Credits:** 2

**Lecture:** 2

**Grading:** A-F grading only.

## **RAD 180 - Radiology Clinical Education II**

**Description:** Reinforcement of radiographic skills and the addition of new competencies toward completion of a semester benchmark of radiographic competencies. Supervised clinical assignments emphasize work in the clinical environment and performance of radiographic competencies. Competency based experiences support acquisition of intermediate patient care and radiographic positioning skills.

**Prerequisite:** RAD 160.

**Corequisite:** RAD 220.

**Credits:** 3

**Lab:** 9

**Grading:** A-F grading only.

## **RAD 200 - Radiology Clinical Education III**

**Description:** Advancement of radiographic skills and the addition of new competencies to complete a semester benchmark of selected radiographic competencies. Advanced organizational skills, speed and accuracy in the performance of clinical competencies. Competency based experiences support the acquisition of limited working proficiency in patient care and radiographic positioning skills.

**Prerequisite:** RAD 220.

**Credits:** 7

**Lab:** 21

**Grading:** A-F grading only.

## **RAD 220 - Radiobiology and Radiation Protection**

**Description:** Principles of the interaction of ionizing radiation and biological systems. Includes concepts of radiation protection.

Prerequisite: RAD 160.

Corequisite: RAD 180.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading.

## **RAD 230 - Radiology Pharmacology**

**Description:** Basic concepts of radiology pharmacology. Includes techniques of venipuncture and administration of diagnostic contrast agents and intravenous medications.

Prerequisite: RAD 200.

Corequisite: RAD 240 and RAD 250 and RAD 260.

**Credits:** 1

**Lecture:** 1

**Grading:** A-F grading only.

## **RAD 240 - Radiology Clinical Education IV**

**Description:** Refinement of advanced skills and completion of a semester benchmark of selected radiographic competencies. Supervised clinical assignments focus on progressively increasing levels of independent judgment in the performance of clinical competencies. Competency based experiences support the acquisition of advanced patient care and radiographic positioning skills.

Prerequisite: RAD 200.

Corequisite: RAD 230 and RAD 250 and RAD 260.

**Credits:** 3

**Lab:** 9

**Grading:** A-F grading only.

## **RAD 250 - Radiographic Pathology**

**Description:** Concepts of disease and the etiology of selected pathologic conditions. Emphasis on the radiographic appearance of various diseases and the influence of pathologic conditions on exposure factor selection.

Prerequisite: RAD 200.

Corequisite: RAD 230 and RAD 240 and RAD 260.

**Credits:** 2

**Lecture:** 2

**Grading:** A-F grading only.

## **RAD 260 - Advanced Imaging Systems**

**Description:** Overview of the various fields of medical imaging with a focus on Computed Tomography.

Prerequisite: RAD 200.

Corequisite: RAD 230 and RAD 240 and RAD 250.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **RAD 270 - Radiology Registry Review**

**Description:** Review of standard subject materials in preparation for the American Registry of Radiologic Technologists (ARRT) Examination.

Prerequisite: RAD 260.

**Credits:** 3

**Lecture:** 3

**Grading:** A-F grading only.

## **RAD 280 - Radiology Clinical Education V**

**Description:** Completion of program competencies and observational experiences in advanced imaging modalities. Supervised clinical assignments to achieve mastery of radiographic positioning and patient care skills outlined in the Competency Requirements for Primary Certification of the American Registry of Radiologic Technologists (AART). Skills are refined in preparation to join the workforce as an entry-level practitioner.

Prerequisite: RAD 260.

**Credits:** 3

**Lab:** 9

**Grading:** A-F grading only.

## **REC 102 - Introduction to Wildlife Tracking**

**Description:** Introduction to wildlife tracking in various geographic zones. Emphasis on track identification.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **REC 110 - Backcountry Skills**

**Description:** Introduction to outdoor skills related to camping and hiking.

**Credits:** 2

**Lab:** 4

**Grading:** S/U grading only.

## **REC 111 - Backcountry Navigation and Orienteering**

**Description:** Introduction to orienteering. Interpret different scales of maps and use of compasses and GPS.

**Credits:** 1

**Lecture:** 1

## **REC 112 - Hiking Fitness**

**Description:** Hiking to develop and maintain physical fitness.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **REC 113 - Backpacking**

**Description:** Techniques for efficient backcountry hiking. Skills for the beginning backpacker; includes packing and travel tactics, safety and low impact camping. Must possess adequate physical abilities for backcountry travel with a backpack. Overnight trips required.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **REC 131 - Beginning Kayaking**

**Description:** Fundamentals of kayaking. Emphasis on safe entry and exit, paddle strokes, self and assisted rescue and rolling. Must possess physical fitness level for sustained periods of immersion and strong swimming ability.

**Credits:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **REC 140 - Aboriginal Living Skills**

**Description:** Introduction to Southwestern primitive skills. Creating fire with sticks, making and using basic stone tools, building primitive shelters, using plant fibers for rope and other utilitarian utensils.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **REC 142 - Outdoor Survival Skills**

**Description:** Adapting to outdoor emergencies using modern fire lighting techniques, natural shelter construction, locating and disinfecting water and signaling for rescue.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

**Grading:** S/U grading only.

## **REC 145 - Wilderness Advanced First Aid**

**Description:** Principles and skills to make critical first aid and evacuation decisions and take appropriate action in remote locations where medical assistance is more than one hour away.

**Credits:** 2

**Lecture:** 2

## **REC 213 - Intermediate Backpacking**

**Description:** Application of techniques and skills for extended backpacking travel. Must possess adequate physical abilities for carrying a backpack over rough terrain.

**Credits:** 2

**Lab:** 4

**Grading:** S/U grading only.

## **REL 201 - Comparative Religions**

**Description:** The world's religions from East and West, both old and new. Focus on differing religious/philosophical conceptual frameworks. Nonliterate and primal religions, Hinduism, Buddhism, Confucianism, Taoism, Japanese religions, Judaism, Christianity, Islam, Baha'i and more recent religions.

Prerequisite: ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **REL 203 - Native Religions of the World**

**Description:** Examination of the kinds of religious experience found among native aboriginal peoples (often called "tribal" or "indigenous" peoples). Analysis of the religious traditions of both modern and archaic native peoples and the relationship of their religious experience to other forms of experience (social, economic, political, and cultural).

Prerequisite: ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Intensive Writing

## **REL 273 - Introduction to Jewish Studies**

**Description:** Dimensions and concerns of Jewish civilization historically and in contemporary times. Continuities and discontinuities, secular and religious expressions of Jewish culture, concepts, and ideals; sense of human place, purpose, communal and personal life; influence of Jewish thought on other religious and secular cultures; modern concepts and challenges.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **RUS 131 - Conversational Russian I**

**Description:** Fundamentals of speaking and listening skills in Russian. Introduction to the culture of the Russian-speaking world.

**Credits:** 3

**Lecture:** 3

## **RUS 132 - Conversational Russian II**

**Description:** Development of speaking and listening skills in Russian at the novice level. Culture of the Russian-speaking world.

**Prerequisite:** RUS 131.

**Credits:** 3

**Lecture:** 3

## **SOC 101 - Introduction to Sociology**

SOC 1101.

**Description:** Study of human behavior from the sociological perspective. Areas of emphasis include society, culture, social structure, social institutions, socialization, and forms of social stratification.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC), SUN# SOC 1101

## **SOC 125 - Domestic Violence**

**Description:** Theory and dynamics in domestic violence. Defining spouse abuse, exploring origins and impact on children and family.

**Credits:** 3

**Lecture:** 3

## **SOC 140 - Sociology of Intimate Relationships and Family**

**Description:** Study of relationships and family life, interpersonal attraction, dating and committed partnerships, relationships and household dynamics, parenting decisions, relationship longevity or dissolution.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC)

## **SOC 142 - Race and Ethnic Relations**

SOC 2215.

**Description:** Contemporary racial and ethnic intergroup relations emphasizing cultural origins, developments, and problems of minority groups in the United States

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC), SUN# SOC 2215

## **SOC 212 - Gender and Society**

**Description:** Examine the ways society shapes and defines the positions and roles of both men and women. Emphasis on the sociological theories and research methods used to study how femininities and masculinities are constructed within the following social institutions: the family, education, work, healthcare, and the mass media.

Prerequisite: Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC)

## **SOC 220 - Introduction to Social Work**

**Description:** Survey of social work as a profession and social welfare as an institution. Social work: historical development, principles, philosophy, and practices.

**Credits:** 3

**Lecture:** 3

## **SOC 230 - Introduction to Statistics in the Social and Behavioral Sciences**

**Description:** Basic concepts of statistical analysis and design in social and behavioral science research. This course is crosslisted with PSY 230.

Prerequisite: MAT 142 or MAT 152 or satisfactory score on the mathematics skills assessment.

**Credits:** 3

**Lecture:** 3

## **SOC 250 - Social Problems**

SOC 2250.

**Description:** A sociological exploration of selected social problems. Emphasis on social issues.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Ethnic, Race & Gender, Social Science (AGEC), SUN# SOC 2250

## **SOC 290 - Research Methods**

**Description:** Planning, execution, analysis, and written reporting of sociological research. Surveys the literature, procedures, and instruments in representative areas of sociological research. Cross-listed with PSY 290.

**Prerequisite:** SOC 101.

**Credits:** 4

**Lecture:** 4

## **SOC 296 - Internship: Sociology**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

Prerequisite: Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **SOC 299 - Independent Study Sociology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **SPA 100 - Quick, Basic, and Fun Spanish for Travelers and Pre-Beginners**

**Description:** Introductory Spanish phraseology as well as parts of speech for the would-be traveler and/or the most basic pre-beginner. Vocabulary terms akin to functional Spanish interactions in specific contexts for travelling and other specialized interests. Focuses on augmenting the most basic Spanish speaking/listening skills, and increasing understanding of cultural products and practices in Spanish speaking countries.

**Credits:** 2

**Lecture:** 2

## **SPA 101 - Beginning Spanish I**

SPA 1101.

**Description:** Fundamentals of speaking, writing, listening, and reading of Spanish. Introduction to the culture of the Spanish-speaking world.

Prerequisite: Reading Proficiency.

**Credits:** 4

**Lecture:** 4

**Course Attributes:** Course Attributes: SUN# SPA 1101

## **SPA 102 - Beginning Spanish II**

SPA 1102.

**Description:** Development of speaking, writing, listening, and reading proficiency in Spanish at the novice mid/novice high level. Culture of the Spanish-speaking world.

Prerequisite: SPA 101 or SPA 132 or placement exam.

**Credits:** 4

**Lecture:** 4

**Course Attributes:** Course Attributes: SUN# SPA 1102

## **SPA 131 - Conversational Spanish I**

**Description:** Fundamentals of speaking and listening skills in Spanish. Introduction to the culture of the Spanish-speaking world.

**Credits:** 3

**Lecture:** 3

## **SPA 132 - Conversational Spanish II**

**Description:** Development of speaking and listening skills in Spanish at the novice level. Culture of the Spanish-speaking world.

Prerequisite: SPA 101 or SPA 131.

**Credits:** 3

**Lecture:** 3

## **SPA 135 - Introduction to Spanish Literature**

**Description:** Basic panoramic view of Spanish language poetry and literature from selected countries and authors.

Prerequisite: SPA 102. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Global/Internal or Historical

## **SPA 201 - Intermediate Spanish I**

SPA 2201.

**Description:** Development of speaking, writing, listening, and reading proficiency in Spanish at the novice high level. Culture of the Spanishspeaking world.

Prerequisite: SPA 102 or placement exam. Reading Proficiency.

**Credits:** 4

**Lecture:** 4

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Global/Internl or Historical, SUN# SPA 2201

## **SPA 202 - Intermediate Spanish II**

SPA 2202.

**Description:** Development of speaking, writing, listening, and reading proficiency in Spanish at the intermediate low level. Culture of the Spanish-speaking world.

Prerequisite: SPA 201 or placement exam. Reading Proficiency.

**Credits:** 4

**Lecture:** 4

**Course Attributes:** Course Attributes: Arts & Humanities (AGEC), Ethnic, Race & Gender, Global/Internl or Historical, SUN# SPA 2202

## **SPA 296 - Internship: Spanish**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

Prerequisite: Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **SPA 299 - Independent Study Spanish**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **STU 101 - Introduction to Student Success**

**Description:** Academic and personal skills to promote a successful college experience.

**Credits:** 1

**Lecture:** 1

## **STU 150 - College Success Skills**

**Description:** Academic and personal skills to promote a successful college experience.

**Credits:** 3

**Lecture:** 3

## **STU 198 - Student Workshop:**

**Description:** Development of leadership, scholarship, fellowship and service through participation in various projects.

**Credits:** 1

**Lecture:** 1

## **STU 230 - Leadership Development Studies**

**Description:** Concepts, theories and philosophies of leadership and the application and practice of leadership skills.

**Prerequisite:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Course Attributes: Critical Thinking (AGEC)

## **STU 296 - Internship: Life Management Skills**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

Prerequisite: Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **STU 299 - Independent Study Life Management Skills**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **THR 131 - Acting I**

**Description:** Introduction to performance techniques with emphasis on movement and voice skills, and the performer's relationship to all parts of the play's production. Incorporates creative movement, character analysis, improvisation, stage arts, and the contribution of various types of theater and theatrical arts.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **THR 132 - Acting II**

**Description:** Study of performance techniques with emphasis on character development and analysis. Introduction to directing and technical theater as they influence development of acting skills.

**Prerequisite:** THR 131.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **THR 133 - Musical Theater I**

**Description:** The study and performance of works from the musical theatre repertory, including musical comedy, reviews, operetta and basic vocal and movement skills. Theatre attendance and/or assistance in college productions required.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **THR 134 - Musical Theater II**

**Description:** Intermediate study and performance of works from the musical theatre repertory, including from the Golden Age of Musical Theater to current works on Broadway applying vocal and movement skills. Theatre attendance and/or assistance in college productions required.

**Prerequisite:** THR 133.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **THR 135 - Introduction to the Theater**

**Description:** Development of theatre in Europe and America from ancient Greece to present. Integrated approach to theatre including playwriting, architecture, acting, production and criticism, particularly in historical settings.

Prerequisite: ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Arts & Humanities (AGEC)

## **THR 141 - Stagecraft**

**Description:** Foundations of technical theater including theater throughout history, technical design, concept and collaboration. Development of skills used by theater technicians and craftspeople in areas of scenery, costume, lighting and sound.

**Credits:** 3

**Lecture:** 1

**Lab:** 4

## **THR 143 - Theater Set Building**

**Description:** Introduction to set design and building, joinery, machining, hand skills, assembly and finishing techniques. Application of design principles. This course is cross-listed with ART 143 .

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **THR 144 - Production Workshop Practicum: Costuming and Make-up**

**Description:** Theater costume design and creation for production and theatrical performance.

**Credits:** 1

**Lecture:** 0

**Lab:** 3

## **THR 145 - Production Workshop Practicum: Props**

**Description:** Theater prop design and creation for production and theatrical performance.

**Credits:** 1

**Lecture:** 0

**Lab:** 3

## **THR 146 - Production Workshop Practicum: Set Building and Painting**

**Description:** Set design, painting, and creation for production and theatrical performance.

**Credits:** 1

**Lecture:** 0

**Lab:** 3

## **THR 147 - Production Workshop Practicum: Theater Production Crew**

**Description:** Production support techniques for theatrical performance.

**Credits:** 1

**Lecture:** 0

**Lab:** 3

## **THR 151 - Scene Study for Actors**

**Description:** Theory and practice of acting combined through the preparation and presentation of scenes from stage plays and screenplays. Scene work involving both solo and ensemble scenes.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **THR 218 - Directing I**

**Description:** The art of theater direction for a stage play and the director's role.

**Prerequisites:** THR 132 and THR 220.

**Credits:** 3

**Lecture:** 1

**Lab:** 6

## **THR 219 - Major Issues in Modern and Contemporary Drama**

**Description:** Exploration of important works of world drama from 1870 to the present. Critical analysis of historical, political, economic, social, and cultural issues that have shaped and been shaped by modern and contemporary plays. Cross-listed with ENG 219.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Arts & Humanities (AGEC), Ethnic, Race & Gender, Intensive Writing

## **THR 220 - Principles of Dramatic Analysis**

**Description:** Play script analysis and production for interpreting a script for performance values and aesthetics. Critical analysis from the point of view of the director, actor, designer, or critic.

**Prerequisites:** THR 135 and THR 141

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **THR 230 - Playwriting**

**Description:** Beginning techniques used in writing and staging the play. This course is cross-listed with CRW 230 .

**Credits:** 3

**Lecture:** 3

## **THR 231 - Acting the One-Act Play**

**Description:** Performance techniques of the full One-Act Play. Emphasis on character development, character analysis, play analysis and acting within appropriate period styles. Introduction to producing, directing, technical theatre and acting the One-Act Play as they influence development of acting, directing, and production skills.

**Prerequisite:** THR 132.

**Credits:** 3

**Lecture:** 3

## **THR 250 - American Cinema**

**Description:** Survey of American film as an art form, an industry, and a system of representation and communication. Technical, aesthetic, and cultural aspects of cinema and the reading of film as a means for communicating American ideals, values and attitudes. This course is cross-listed with HUM 250.

**Prerequisite:** ENG 101 or ENG 103. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Course Attributes:** Arts & Humanities (AGEC), Intensive Writing

## **THR 296 - Internship: Theater**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisites:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **THR 299 - Independent Study Theater**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

**Lecture:** 1-6

## **UAS 100 - Introduction to UAS**

**Description:** Fundamentals of Unmanned Aircraft Systems (UAS). Includes history, legislation, concept of operations, types of systems, and current applications.

**Credits:** 3

**Lecture:** 3

## **UAS 103 - UAS Simulations**

**Description:** Unmanned Aircraft System (UAS) concepts of operation using simulation. Includes map reading, data collection strategies and techniques, mission planning, live data dissemination, and end-of-mission report writing. Focus on aircrew coordination.

**Credits:** 3

**Lecture:** 3

## **UAS 110 - UAS Fixed-Wing Systems**

**Description:** Fundamentals of fixed-wing Unmanned Aircraft System (UAS) airframes and ground systems. Basic component operation and use of airframe systems, the power system, flight controls, payloads, and avionics. Includes hands-on assembly of UAS systems.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **UAS 115 - UAS Multirotor Systems**

**Description:** Fundamentals of multicopter Unmanned Aircraft System (UAS) airframes and ground systems. Basic component operation and use of airframe systems, power system, flight controls, payloads, and avionics. Includes hands-on assembly of UAS systems.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **UAS 120 - UAS Sensing Systems**

**Description:** Unmanned Aircraft System (UAS) sensor systems, principles of remote sensing, imagery analysis, and payload selection. Includes component operation and use of electro-optical, near-infrared, short-and long-wave infrared, Synthetic Aperture Radar (SAR), and Light Information Detection and Ranging (LIDAR) sensors. Introduction to the electromagnetic spectrum, target detection criteria, and sensor/lens/aircraft pairing.

**Credits:** 3

**Lecture:** 3

## **UAS 132 - UAS Flight Operations**

**Description:** Fundamentals of Unmanned Aircraft System (UAS) fixed-wing and multirotor flight. Designed for the rated Remote Pilot to safely operate fixed-wing and multirotor unmanned aircraft. Emphasis on semi-autonomous, autonomous, and manual flying techniques during takeoff, flight and landing.

**Credits:** 4

**Lecture:** 3

**Lab:** 2

## **UAS 215 - UAS Mapping Systems**

**Description:** Unmanned Aircraft Systems (UAS) concepts of operation in creation of high-resolution photo maps for decision making. Includes theory of data collection, concepts in photogrammetry, flight planning, photomapping software operation, and operation of Geographical Information System (GIS) software. Interpretation and manipulation of visual imagery, multispectral imagery, and digital surface models.

Prerequisite: UAS 120.

**Credits:** 3

**Lecture:** 3

## **UAS 250 - UAS Applications and Analytics**

**Description:** Unmanned Aircraft Systems (UAS) applied operations to solve real-world problems. Evaluation of a real or simulated problem which will involve determining the appropriate UAS, payload, and operating procedures, collecting the required imagery/data, and evaluating the effectiveness of the proposed solution.

Prerequisite: UAS 103, UAS 110, UAS 115, UAS 120 and UAS 215 (UAS 215 may be taken concurrently).

**Credits:** 3

**Lecture:** 3

## **VGD 121 - Video Game Development for Game Engines I**

**Description:** Introduction to the creation of video games primarily through the use of drag and drop techniques. Covers the creation of single player games, use of image and sound files in games, creation of simple code logic structures, and the deployment of games.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **VGD 122 - Video Game Development for Game Engines II**

**Description:** Techniques and skills necessary to create games in multiple genres for recreational and educational uses. Includes the applications of coding, interactive game logic, variables and simple probability when developing video games.

Prerequisite: VGD 121.

**Credits:** 3

**Lecture:** 3

## **VGD 151 - 3D Modeling and Animation I**

**Description:** Introduction to the techniques used to create 3D objects and animation for games, TV, and movies using professional 3D modeling and animation software. Includes modeling solid objects, object surfacing and shaders, object animation, lighting techniques, camera parameters, and the configuration of rendering engines.

**Credits:** 3

**Lecture:** 3

## **VGD 152 - 3D Modeling and Animation II**

**Description:** Modeling and animation skills used to develop 3D objects. Includes application of techniques used to create environments and objects with organic shapes.

Prerequisite: VGD 151.

**Credits:** 3

**Lecture:** 3

## **VGD 171 - Video Game Development - Programming I**

**Description:** Introduction to modern Object Oriented Programming through the development of video games for a variety of platforms, using an integrated development environment (IDE) and related software.

**Credits:** 3

**Lecture:** 3

## **VGD 172 - Video Game Development - Programming II**

**Description:** General object oriented programming and specialized coding techniques to build a basic 3D video game. Topics include 3D space coordinate programming for cameras, camera targets, models, object collisions in 3D space and scene lighting.

Prerequisite: VGD 171.

**Credits:** 3

**Lecture:** 3

## **VGD 180 - Game Theory and Design Principles**

**Description:** Introduction to major topics in video game design, game design basics, designing a game, and working as a game designer. Emphasis on the principles of game design through identifying, comparing, and contrasting examples of design elements in various pre-existing games.

**Credits:** 3

**Lecture:** 3

## **VGD 221 - Video Game Development for Game Engines III**

**Description:** Advanced work in game development emphasizing the use and control of biped and other characters in the game environment.

Prerequisite: VGD 122.

**Credits:** 3

**Lecture:** 3

## **VGD 222 - Video Game Development for Game Engines IV**

**Description:** Advanced work in game development emphasizing techniques for development of games for smartphones and tablets including the deployment, sale, and distribution of games through online marketplaces.

Prerequisite: VGD 122.

**Credits:** 3

**Lecture:** 3

## **VGD 251 - 3D Modeling and Animation III**

**Description:** Modeling and animation skills with emphasis on advanced character modeling and animation techniques and the use of specialized surfacing tools and techniques.

Prerequisite: VGD 152.

**Credits:** 3

**Lecture:** 3

## **VGD 252 - 3D Modeling and Animation IV**

**Description:** Advanced animation and modeling skills with an emphasis on techniques and tools to create and edit motion capture data files.

Prerequisite: VGD 152.

**Credits:** 3

**Lecture:** 3

## **VGD 280 - Game Design Documentation and Marketing**

**Description:** Hands-on experience with principles of game design documentation. Emphasis on creating a video game design document proposal, with accompanying design documents, marketing materials, and financial projections.

**Prerequisite:** VGD 180

**Credits:** 4

**Lecture:** 4

## **VGD 295 - Video Game Design Project**

**Description:** The class will team together in the creation of game design documents, development of a game, and publication of a game. Game idea and outcome supplied by instructor.

**Prerequisite:** VGD 222 and VGD 252 and VGD 280 (may be taken concurrently with instructor approval).

**Credits:** 4

**Lecture:** 3

**Lab:** 2

## **VGD 296 - Internship: Video Game Development**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **VEN 100 - Introduction to Viticulture**

**Description:** World history of grapes and their production. Emphasis on the varieties of grapes, grapevine biology and physiology, vineyard management, and harvest and post-harvest operations.

**Credits:** 3

**Lecture:** 3

## **VEN 101 - Establishing a Vinifera Vineyard**

**Description:** Introduction to the processes of establishing a vineyard. Emphasis on site selection, vine varieties, soil preparation, planting methods, vineyard layout, and equipment requirements.

Prerequisite: VEN 100 (May be taken concurrently).

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **VEN 102 - Maintaining a Vinifera Vineyard**

**Description:** Maintaining a vineyard from the point of dormancy through the harvest. Emphasis on crop monitoring techniques, pruning methods, bloom, vine manipulation, and determining vine health. Includes the relationship that exists between the grower and the vintner.

**Prerequisite:** VEN 100 (May be taken concurrently).

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **VEN 121 - Wines of the World**

**Description:** Wines produced throughout the world with an emphasis on history, the growth of grapes, wine production, geography and cultural relevance of different wine types and growing regions. In-depth classification and critique of "New World" versus "Old World" wine regions and styles. Winemaking methods, service, laws and regulations of the major wine regions. Students will taste, evaluate and identify various wine styles. Must be 21 years of age or older to enroll.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **VEN 122 - Sensory Evaluation of Wine**

**Description:** Sensory evaluation specific to wine production with a focus on environmental and cultural winemaking practices contributing to the character of a wine. Basic elements of wine through sensory evaluation including the effects of appearance on taste perception, as well as olfactory and physiological taste mechanisms. Emphasis on specific wine varietals, regions, use of oak in winemaking, secondary fermentation, characteristics of individual wine components and wine flaw threshold identification. Designed for those who need to develop an understanding of the principles of sensory evaluation used in winemaking: the wine enthusiast who is interested in reaching advanced levels of appreciation, the wine steward, the wine merchant, and ultimately the enologist, who by the nature of their profession need to discern flavors and establish tasting benchmarks. Must be 21 years of age or older to enroll.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **VEN 195E - Winemaking Practicum**

**Description:** Practical experience in winemaking while working at an approved winery and receiving supervision from a professional vintner. Students must complete a fall, spring and summer practicum. Must be 21 years of age or older to enroll.

**Prerequisite:** VEN 200 (May be taken concurrently).

**Credits:** 2

**Lab:** 4

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **VEN 195V - Viticulture Practicum**

**Description:** Practical experience in vineyard operations partnering with an approved vineyard. Students must complete a fall, spring and summer practicum.

**Prerequisite:** VEN 100 (may be taken concurrently).

**Credits:** 2

**Lab:** 4

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

## **VEN 200 - Science of Winemaking I**

**Description:** Winemaking principles of fruit selection, pre-harvest analyses, fruit processing, juice additions, alcoholic and malo-lactic fermentations. Includes winery hygiene and safety. Must be 21 years of age or older to enroll.

**Credits:** 3

**Lecture:** 3

## **VEN 201 - Science of Winemaking II**

**Description:** Chemistry of winemaking, wine analysis and quality control. Emphasis on wine composition, wine analytical techniques, and the relevance of these analyses to winemaking decisions. Includes wine filtration and post-fermentation wine stewardship. Must be 21 years of age or older to enroll.

**Prerequisite:** VEN 200.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **VEN 202 - Science of Winemaking III**

**Description:** Economics related to wine production and sales including federal, state, and local regulations. Winery business plans, state and federal winery permits, wine production, taxation, reporting, labeling, market research, and sales and distribution. Must be 21 years of age or older to enroll.

**Prerequisite:** VEN 201.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **WEB 104 - Internet Essentials**

**Description:** Introduction to the world of the Internet. Includes surfing the World Wide Web, using e-mail, search engine and downloading files. This course is cross-listed with CSA 104.

**Credits:** 1

**Lab:** 3

## **WEB 130 - Web Site Design I**

**Description:** Introduction to design and production of Web pages for publishing on the Internet using Adobe Creative Suite software. Application of design principles. This course is cross-listed with ART 130.

Prerequisite: ART 137 (may be taken concurrently).

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **WEB 144 - Creating Web Pages Using Dreamweaver**

**Description:** Creation of website using Dreamweaver software. Emphasis on creating, publishing to the web and maintaining website. This is crosslisted with CSA 144.

**Credits:** 3

**Lecture:** 3

## **WEB 180 - Web Site Implementation and Management**

**Description:** Initiation and organization of a Web site with a Web hosting provider. Emphasis on Web site administrative tasks such as folder and file organization, E-mail and FTP account management, and security settings using an industry standard Web site control panel. Includes installation of Web add-on applications and scripts and monitoring of Web site traffic statistics. This course is cross-listed with CNT 180.

**Credits:** 3

**Lecture:** 3

## **WEB 205 - Programming: JavaScript, HTML & CSS**

**Description:** Fundamentals of web page and website creation using basic JavaScript, HTML5 and CSS3 features. Cross-listed with CSC 205.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **WLD 112 - Basic Welding I**

**Description:** Basics of oxyacetylene welding, including safety, welding techniques, basic metallurgy and welding gases.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **WLD 113 - Basic Welding II**

**Description:** Basics of shielded metal arc welding (SMAW) and gas metal arc welding (GMAW).

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **WLD 130 - Oxyacetylene**

**Description:** Safety, oxyacetylene welding, flame cutting, brazing fundamentals and fuel gases. Competency mastery required.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **WLD 140 - Arc I**

**Description:** Fundamentals of basic shielded metal arc welding (SMAW) procedures, equipment and safety.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **WLD 145 - Arc II**

**Description:** Advanced shielded metal arc welding procedures, equipment, safety and cutting techniques.

**Prerequisite:** WLD 140.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **WLD 156 - Blueprint Reading**

**Description:** Fundamentals of reading and interpreting blueprints and welding symbols as they apply to the welding trade.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **WLD 200 - Gas Tungsten Arc Welding**

**Description:** Selection of electrode, gas, cups, and filler rod for gas tungsten arc welding (GTAW). Techniques and practice in welding butt-joint, t-joint, lap and corner joints in various positions.

**Prerequisite:** WLD 130.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **WLD 210 - Gas Metal Arc Welding**

**Description:** Setup and safe operation of gas metal arc welding (GMAW) equipment, GMAW welding of carbon steel plate, aluminum plate and sheet metal.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **WLD 250 - Welded Metal Fabrication**

**Description:** Metal used in manufacturing fabrication and welding techniques. Emphasis on project planning, layout and blueprint reading.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **WLD 282 - Pipe Welding I**

**Description:** Welding of pipe in cross-country pipe lines in industry including chemical, petroleum, salt water, fresh water, fuel system, hydraulic systems and mining.

**Prerequisite:** WLD 145.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **WLD 296 - Internship: Welding**

**Description:** Supervised field experience with businesses, corporations, government agencies, schools and community organizations to expand career interests and apply subject knowledge relevant to the workplace. Individualized internship placements to develop personal and professional skills, including professional ethics, leadership, and civic responsibility.

**Prerequisite:** Student must have a GPA of 2.0; have completed specific degree requirements as required by the program; and have completed the internship application process.

**Credits:** 3

**Repeatable:** [Repeatable for a total of 6 credit hours towards degree/certificate requirements.]

**Grading:** S/U grading only.

## **WLD 299 - Independent Study Welding**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6