

# YAVAPAI COLLEGE

## 2021-2022 CATALOG



## 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.

**The catalog does not establish a contractual relationship between the student and the institution, 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.*

# Catalog Addendum

## About the Addendum

This catalog addendum includes information relating to updates since the release of the 2021-2022 Yavapai College Catalog.

Catalog Item Revised	Description of Revision	Action Taken	Date of Action
<a href="#">3-D Printing and Manufacturing Certificate</a> , <a href="#">Residential Electrical Technician Certificate</a> , <a href="#">Technical Theater in Stagecraft Certificate</a> , <a href="#">Unmanned Aircraft Systems Certificate</a>	Financial Aid eligibility notification	Removed note stating certificate is not eligible for Federal Financial Aid per Department of Education approval	July 12, 2021
<a href="#">Student OneCard</a>	Updated information	Changed Student ID Cards to Student OneCard and modified text	July 27, 2021
<a href="#">Earning a Degree or Certificate</a>	General Education Categories/Courses (AGEC)	Changed College Composition or Applied Communication to First-Year Composition	July 27, 2021
<a href="#">Baking and Pastry Certificate</a> , <a href="#">HVAC Service Technician Certificate</a> , <a href="#">Management - Entrepreneurship Principles and Practice Certificate</a> , <a href="#">Plumbing Technician Certificate</a>	Updated Financial Aid eligibility notification	Removed note stating certificate is not eligible for Federal Financial Aid per Department of Education retroactive approval	September 1, 2021
<a href="#">Electronics - Digital Electronics Certificate</a>	Corrected credit hours required	Adjusted credit hours required listed under the program description to match the sum of course credits within the program requirements	September 23, 2021
<a href="#">AVT 116</a> , <a href="#">AVT 216</a> , <a href="#">AVT 217</a> , <a href="#">AVT 218</a> , <a href="#">AVT 226</a> , <a href="#">AVT 290</a>	Updated course descriptions and prerequisites	Updated Flight TRAINING HOURS and prerequisites	October 4, 2021
<a href="#">AVT 215</a> , <a href="#">AVT 225</a>	Updated course prerequisites	Changed prerequisites to match those in student information system (Banner) per previous course modifications	October 5, 2021
<a href="#">Academic Information</a>	Internship section language revision	Expanded the internship section to include a summary of the policies and procedures related to credit-bearing internships and other WBL (work-based learning) opportunities	October 6, 2021
<a href="#">AVT 218</a> , <a href="#">AVT 226</a>	Updated course descriptions	Updated Flight TRAINING HOURS	November 3, 2021
<a href="#">AVT 116</a> , <a href="#">AVT 217</a>	Updated course descriptions	Added Cessna King Kits information	November 3, 2021
<a href="#">Academic Calendar</a>	Updated Spring Graduation Dates	Changed May 2022 Verde Valley and Prescott Graduation dates	November 16, 2021

## Campus and Center Locations

<p><b>Prescott Campus</b> 1100 East Sheldon Street Prescott, Arizona 86301 Switchboard: 928.445.7300</p>	<p><b>Verde Valley Campus</b> 601 Black Hills Drive Clarkdale, Arizona 86324 Reception: 928.634.7501</p>	<p><b>Prescott Valley Center</b> 3800 North Glassford Hill Road Prescott Valley, Arizona 86314 Reception: 928.717.7911</p>
<p><b>Career &amp; Technical Education Center</b> 220 Ruger Road Prescott, Arizona 86301 Reception: 928.776.2002</p>	<p><b>Chino Valley Agribusiness &amp; Science Technology Center</b> 2275 Old Home Manor Way P.O. Box 4048 Chino Valley, Arizona 86323 Reception: 928.717.7720</p>	<p><b>Sedona Center</b> 4215 Arts Village Drive Sedona, Arizona 86336 Reception: 928.649.4265</p>

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 admission, 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



It is my distinct honor to welcome you to Yavapai College! YC is a student-focused college that seeks to engage you in a quality learning experience.

Whether you are attending college for the first time, returning to college, preparing to enter the job market, transferring to a four-year college, upgrading workforce skills or just taking a course for pleasure, YC is here to help you successfully complete your goals.

Our nationally recognized education and training programs are offered at convenient times, in-person and online. With six campus locations across Yavapai County, opportunity is within your reach.

Whether you have already taken that first step, or are contemplating college, you are on the right track to creating a better life. Here, you will find great opportunities for learning, growth and development in a welcoming, inclusive, purposeful community. What may not be apparent from the catalog is the most distinctive characteristic of YC: A community of supportive, dedicated faculty, staff and administrators who care about your education, share your aspirations and want nothing more than to see you succeed.

I invite you to call or visit to learn more about our outstanding academic programs, student services and financial aid opportunities.

This is your college. It is a place where you will form lasting relationships with a diverse and dedicated group of individuals who share your interest in learning. Completing our programs opens doors to life-changing opportunities.

At Yavapai College, we are committed to your success. We've adopted a slogan that is really a statement of fact: At YC, You Can.... We leave this open-ended so that you can fill in the blank for yourself. Regardless of your educational goal, with YC, You Can get there.

Again, welcome to Yavapai College.

Lisa B. Rhine, Ph.D.

***President, Yavapai College***

# District Governing Board

## Board Members

- **Ms. Deb McCasland**, Board Chair
- **Mr. Ray Sigafos**, Board Secretary
- **Mr. Paul Chevalier**, Board Member
- **Mr. Chris Kuknyo**, Board Member
- **Mr. Mitch Padilla**, Board Member

## District Governing Board Ends

Yavapai College exists so communities within Yavapai County have access to and are equipped with the knowledge and skills to create a sustainable economic environment. The College will achieve these results at a justifiable cost.

### 1.1 Education Ends

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

#### *1.1.1 Job Seeker Ends*

Job seekers have the qualifications, skills, and abilities to succeed.

#### *1.1.2 Student Ends*

Students seeking transfer have the qualifications, skills, and abilities for success at their next educational institution.

#### *1.1.3 Lifelong Learners Ends*

Lifelong learners have access to a variety of learning opportunities.

## 1.2 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.

## 1.3 Community Ends

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

## About YC

### College Mission, Goals, Values & Strategic Initiatives (currently under development)

#### Mission

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

#### Vision Statement

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

#### Goals

- Offer Career Education programs that provide the education and training necessary to compete in the global job market.
- Ensure that General Education students can matriculate and continue in other institutions and programs.
- Provide the Community with access to lifelong learning and cultural opportunities.
- Assure the Communities of Yavapai County receive the leadership and encouragement to promote economic development.

#### 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

- View details at [Yavapai College Strategic Plan](#).
  - The strategic plan will be a three-year [rolling strategic plan](#).

## College Administration

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### President

**Lisa Rhine, Ph.D.** College President (2019)

### Vice Presidents

**Clint Ewell, ED.D.** Vice President of Finance & Administrative Services (2010)

**Rodney Jenkins, M.B.A.** Vice President of Community Relations and Student Development (2017)

**Diane Ryan, Ph.D.** Vice President of Academic Affairs (2019)

### Associate Vice Presidents

**Diana Dowling, M.Ed.** Associate Vice President of Enrollment Management (2011)

**Tania, Sheldahl, M.Ed.** Associate Vice President of Student Affairs and Dean of Students (1986)

### District Deans

**Scott Farnsworth, M.S., ATC/L** Dean of School of Science & Engineering and School of Health & Wellness (1987)

**Joan Fisher, Ph.D.** Dean of Professional Programs and Visual Arts (2017)

**Stacey Hilton, M.S.** Dean of Instructional Support (2000)

**John Morgan, M.A.** Dean of School of Career & Technical Education (1999)

**Tina Redd, Ph.D.** Dean of English, Humanities & Social Sciences, Verde Valley Campus and Sedona Center (2020)



# Yavapai College Foundation

## Executive Members

- **Valerie Wood**, President
- **Cindy Nyman**, First Vice President
- **Anne Barton**, Second Vice President
- **Don Michelman**, Treasurer & Immediate Past President
- **Marnie Uhl**, Secretary
- **Dr. Lisa Rhine**, Yavapai College President

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

Since 1971 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 300 named scholarship funds benefit hundreds of students each year, and we will be providing more than \$700,000 in scholarships for the 21-22 academic year.

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

- ***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.
- ***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 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).

# Academic Calendar

## ***Fall Semester 2021: August 16 - December 11***

Convocation	August 9
Faculty Activities Week	August 9-13
Fall Semester Begins	August 16
Labor Day Holiday (no classes, offices closed)	September 6
First 8-week Semester Ends	October 8
Second 8-week Semester Begins	October 11
Veterans Day (no classes, offices closed)	November 11
Thanksgiving Holiday (no classes, offices closed)	November 24-26
Fall Semester Ends	December 10
Final Grades Due to Registrar	December 15
Offices Closed - Holiday Break	Dec 18-Jan 2

## ***Spring Semester 2022: January 18 - May 14***

Faculty Activities Week	January 10-14
Convocation	January 12
Martin Luther King Jr. Holiday (no classes, offices closed)	January 17
Spring Semester Begins	January 18
First 8-week Semester Ends	March 11
Spring Break (no classes, offices closed)	March 14-20
Second 8-week Semester Begins	March 21
Spring Semester Ends	May 13
Verde Valley Graduation	May 7
Prescott Graduation	May 8
Final Grades Due to Registrar	May 18

## ***Summer Session 2021: June 6 - July 28***

Summer Session begins	June 6
Independence Day Observed (no classes, offices closed)	July 4
Summer Session Ends	July 28
Final Grades Due to Registrar	August 3

### August 2021

Su	M	T	W	Th	F	Sa
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29	30	31				

### September 2021

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### October 2021

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31						

### November 2021

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### December 2021

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### January 2022

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### February 2022

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### March 2022

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### April 2022

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### May 2022

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### June 2022

Su	M	T	W	Th	F	Sa
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### July 2022

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17	18	19	20	21	22	23
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## Academic Information

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### 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.

### 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).

### 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.

### 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 [www.yc.edu/transfer](http://www.yc.edu/transfer).

### North-Aire Aviation, LLC

Yavapai College and North-Aire Aviation have established by contract a joint flight training program at Yavapai College's Career and Technical Education Center and Ernest A. Love Field in Prescott, Arizona. This program is available as an AAS in Aviation Technology with a Concentration in Airplane Operations. Air and ground curriculum are approved by the Federal Aviation Administration (FAA).

## Internships

Internships and other work-based learning (WBL) opportunities develop student competencies beyond the classroom while preparing participants for skilled entry into specific industry sectors. These experiences enable students to explore potential careers and apply knowledge gained in the classroom while refining technical skills and gaining relevant experience in the workplace.

Credit-bearing internships, practicums, and apprenticeships are available at Yavapai College as an option for certain programs. To explore these possibilities, students should see their Academic Advisor or the program's Internship/Practicum Coordinator.

Specific degree requirements must be met, and students must complete an internship application process. Yavapai College provides the necessary paperwork ensuring all parties (employer, faculty/staff, and student) completely understand and are committed to meeting the requirements. A contract details the specific job expectations, the learning outcomes, and a student responsibility statement. The employer will provide sufficient opportunity, experiences, and instruction for learning under supervision per the job description, which YC approved for earning academic credit. In addition, the employer will complete a student evaluation via an exit interview form or other requested format. The Yavapai College Career Coach or faculty, the student, and the employer will follow up by in-person meetings, emails, or phone calls to ensure progress with learning objectives.

For more information on internships and apprenticeships, see [www.yc.edu/internships](http://www.yc.edu/internships). Internships are covered in [Academic Systems Operational Policy 3.13](#).

## Methods of Instruction and Meeting Types

*Yavapai College offers a variety of instructional methods to meet the needs of a diverse student population.*

### Instructional Delivery Methods

Delivery Type	Description
<b>Activity Based</b>	Classes are based on physical activity and students are expected to attend all classes.
<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>	Classes are held in a classroom at specific days and times.
<b>Classroom and Web (Hybrid)</b>	A hybrid class combines face-to-face classroom instruction with online course activities. This blended learning model offers students the opportunity to engage with instructors in the classroom on a regular and scheduled basis. The hybrid model supplements class time with online lessons and activities. Although the balance of in-class and online learning time differs from class to class, the hybrid model offers students the best of both worlds. Students benefit from in-class interaction with their instructor while also having the flexibility of online learning activities that can be accessed on their personal schedules.
<b>Computer Based In-Classroom</b>	Classes meet in a classroom at specific days and times. Students are required to use a computer in the classroom.
<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</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 are held in a classroom. Instructors help students work at their own pace to complete requirements. Students must show weekly progress.
<b>Internship</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>	An online class is completely virtual. Course content is delivered asynchronously, so students can learn on their own time. Course content, assignments and test deadlines may be scheduled on a weekly basis, so students will need to consistently log into online courses to adhere to instructor deadlines. Online classes offer students the benefit of twenty-four hours, seven days a week accessibility to fit their life and work schedules. Instructors in online classes provide regular interaction and support through email, discussion forums, and assignment feedback. 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>	Private lessons are scheduled for each student. One instructor is assigned to each student.
<b>Video Conferencing</b>	Video Conferencing classes are held in physical locations, but students can also choose to connect with the class using an online program called Zoom. Zoom allows students to interact with the instructor and other students in the class. If using Zoom, students will need a computer with reliable Internet access, web camera and a microphone.
<b>WebLIVE</b>	WebLive is a live online class where students and instructors are connected in a virtual classroom via Zoom. Just like an in-person class, a WebLive class takes place in real time, meeting at the same time each week. This allows students and instructors to be online at the same time engaging in classroom lectures, discussions, and real time activities. The high-quality and real-time interaction of WebLive courses requires that students have reliable Internet access, a web camera, and a microphone.

## Meeting Types

*Meeting Type indicates the primary way(s) a student will interact with the class (in person in a classroom, online, a combination of both, etc.). A course may include one or more of the following meeting types.*

<b>Meeting Type</b>	<b>Description</b>
<b>Class</b>	Classes are held in a classroom at specific days and times.
<b>Field Trip</b>	A field trip is a visit or journey by students to a specified location to gain firsthand knowledge outside of the classroom. This is a means of providing a complementary and diverse learning environment.
<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>Mandatory Orientation</b>	A mandatory orientation is required. The course schedule will specify whether a mandatory orientation is in person or can be provided online via a program called Zoom.
<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>Online</b>	An online class is completely virtual. Course content is delivered asynchronously, so students can learn on their own time. Course content, assignments and test deadlines may be scheduled on a weekly basis, so students will need to consistently log into online courses to adhere to instructor deadlines. Online classes offer students the benefit of twenty-four hours, seven days a week accessibility to fit their life and work schedules. Instructors in online classes provide regular interaction and support through email, discussion forums, and assignment feedback. Some online classes may require proctored exams. Additional fees may be charged for proctored exams.
<b>Optional Orientation</b>	An optional orientation is not required, but attendance is strongly encouraged. The course schedule will specify whether an optional orientation is in person or can be provided online via a program called Zoom.
<b>WebLIVE</b>	WebLive is a live online class where students and instructors are connected in a virtual classroom via Zoom. Just like an in-person class, a WebLive class takes place in real time, meeting at the same time each week. This allows students and instructors to be online at the same time engaging in classroom lectures, discussions, and real time activities. The high-quality and real-time interaction of WebLive courses requires that students have reliable Internet access, a web camera, and a microphone.

## Prior Learning & Credit for Exams

### 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.

### Agency or Industry Certifications or Licenses

If you have any type of agency or industry certification, speak to your academic advisor to request a review of your certifications or licenses for possible earned college credit.

#### Examples include:

CPR certification, Certified Nursing Assistant (CNA), A+ Computer Certification, ASE Certifications, FAA Certifications

See full list of equivalencies at <https://www.yc.edu/v6/marketing/pages/cpl/index.html>.



## 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
<b>2-D Art &amp; Design</b>	4/5	3	ART 112
<b>3-D Art &amp; Design</b>	4/5	3	ART 113
<b>Art History</b>	3 4/5	3 6	ART 200 or ART 201 ART 200 & ART 201
<b>Biology</b>	3 4/5	4 8	BIO 100 BIO 181 & BIO 182
<b>Calculus AB</b>	3/4/5	5	MAT 220
<b>Calculus BC</b>	3 4/5	5 10	MAT 220 MAT 220 & MAT 230
<b>Chemistry</b>	4 5	5 10	CHM 151 CHM 151 & CHM 152
<b>Comparative Government &amp; Politics</b>	4/5	3	Elective Credit
<b>Computer Science A</b>	4/5	3	CSC 105
<b>Computer Science Principles</b>	3/4/5	3	CSC 105

## Continued - Advanced Placement (AP) Table\*

Exam	Score	Credits	YC Equivalent
Drawing	4/5	3	ART 110
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	4	BIO 105
European History	4/5	6	HIS 201 & Dept Elective
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 (Elect. & Magnetism)	3/4/5	4	PHY 112
Physics C (Mechanics)	3/4/5	4	PHY 111
Psychology	4/5	3	PSY 101
Research	3/4/5	3	Elective Credit
Seminar	3/4/5	3	Elective Credit
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
US History	4/5	6	HIS 231 & HIS 232
World History	4/5	3	HIS 205

## 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
<b>Accounting-AS Level</b>	a - e	3	Elective Credit
<b>Accounting-A Level</b>	A* - E	6	Elective Credit
<b>Biology-AS Level</b>	a - d	4	BIO 100 or Dept Elective
	e	4	BIO 100
<b>Biology-A Level</b>	A* - D	8	BIO 181 & BIO 182
	E	4	BIO 181
<b>Business-AS Level</b>	a - e	3	Elective Credit
<b>Business-A Level</b>	A* - E	6	Elective Credit
<b>Chemistry-AS Level</b>	a - d	4	CHM 130
<b>Chemistry-A Level</b>	a	10	CHM 151 & CHM 152
	b or c	5	CHM 151
	d or e	4	CHM 130
<b>Computer Science-AS Level</b>	a - e	3	Elective Credit
<b>Computer Science-A Level</b>	A* - E	3	Elective Credit
<b>Economics-A Level</b>	A* - D	6	ECN 235 & ECN 236
<b>English Language-A Level</b>	A* - E	3	Elective Credit
<b>Geography-AS Level</b>	a - c	3	Elective Credit
<b>Geography-A Level</b>	A* - C	6	Elective Credit
<b>Global Perspectives &amp; Research-AS Level</b>	a - e	3	Elective Credit
<b>Global Perspectives &amp; Research-A Level</b>	A* - E	6	Elective Credit
<b>History-AS Level</b>	a - e	3	HIS Dept Elective
<b>History-A Level</b>	A* - E	6	HIS Dept Elective
<b>Information Technology-AS Level</b>	a - e	3	Elective Credit
<b>Information Technology-A Level</b>	A* - E	3	Elective Credit
<b>Marine Science-A Level</b>	A* - D	4	BIO Dept Elective
<b>Mathematics-AS Level</b>	a - e	3	MAT 152
<b>Mathematics-A Level</b>	A* - E	8	MAT 187 & MAT 212
<b>Mathematics-Further-A Level</b>	A* - E	13	MAT 220 & MAT 230 & MAT 167
<b>Music-AS Level</b>	a - e	3	MUS 240
<b>Music-A Level</b>	A* - E	3	MUS 240
<b>Psychology-A Level</b>	A* - E	6	PSY 101 & PSY Elective
<b>Psychology-AS Level</b>	a - 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>		
Information Systems	3	Elective Credit
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 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
Chemistry	5	CHM 151
College Algebra	3	MAT 152
Pre-Calculus	5	MAT 187
Calculus	5	MAT 220
<b>Spanish Language</b>		
Score of 50	4	SPA 101

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>History of the U.S. I</b>		
Score of 56	3	HIS 231
<b>History of the U.S. II</b>		
Score of 56	3	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	6	Elective Credit
<b>Spanish Language</b>		
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</b>		
Score of 56	3	HIS 201
<b>Western Civilization II</b>		
Score of 56	3	Elective Credit

## 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.

Exam	Minimum Score	Credits	YC Equivalent
<b>Computing and Information Technology</b>	400	3	Elective Credit
<b>Criminal Justice</b>	400	3	AJS 101
<b>Environmental Science</b>	400	4	BIO 105
<b>Fundamentals of Cybersecurity</b>	400	3	Elective Credit
<b>Introduction to Business</b>	400	3	Elective Credit
<b>Introduction to Geography</b>	400	3	GEO 105
<b>Introduction to Law Enforcement</b>	400	3	AJS 230
<b>Lifespan Developmental Psychology</b>	400	3	PSY 245
<b>Organizational Behavior</b>	400	3	Elective Credit
<b>Principles of Finance</b>	400	3	Elective Credit
<b>Substance Abuse</b>	400	3	PSY 241
<b>Technical Writing</b>	400	3	Elective Credit

## 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.

Exam	Score	Credits	YC Equivalent
<b>Biology- HL</b>	4	4	BIO 100
	5 or higher	8	BIO 181 & BIO 182
<b>Biology - SL</b>	4	3	BIO Dept Elective
	5 or higher	4	BIO 100
<b>Business &amp; Management - HL</b>	5 or higher	3	Elective Credit
<b>Business &amp; Management- SL</b>	5 or higher	3	Elective Credit
<b>Chemistry - HL</b>	4	5	CHM 151
	5 or higher	10	CHM 151 & CHM 152
<b>Computer Science - HL</b>	5 or higher	3	CSC 105
<b>Computer Science - SL</b>	4	3	Elective Credit
	5 or higher	3	Elective Credit
<b>Economics - HL</b>	5 or higher	6	ECN 235 & ECN 236
<b>Environmental Systems &amp; Societies</b>	5 or higher	3	Elective Credit
<b>Geography - HL</b>	5 or higher	3	GEO 105
<b>Geography - SL</b>	4 or higher	3	Dept Elective
<b>History, Americas - HL</b>	4	3	HIS 231
	5 or higher	6	HIS 231 & HIS 232
<b>History, Europe - HL</b>	4	3	HIS 201
	5 or higher	6	HIS 201 & Dept Elective
<b>Information Technology in a Global Society - HL</b>	5 or higher	3	Elective Credit
<b>Information Technology in a Global Society - SL</b>	5 or higher	3	Elective Credit
<b>Language A: Language - HL</b>	5 or higher	3	ENG 101
<b>Language A: Language &amp; Literature - HL</b>	5 or higher	3	ENG 101
<b>Music - HL</b>	4 or higher	3	MUS 240
<b>Music - SL</b>	5 or higher	3	MUS 240
<b>Physics - HL</b>	5	4	PHY 111
	6 or higher	8	PHY 111 & PHY 112
<b>Physics - SL</b>	6 or higher	4	PHY 111
<b>Psychology - HL</b>	5 or higher	3	PSY 101
<b>Social &amp; Cultural Anthropology - HL</b>	4 or higher	3	ANT 102
<b>Spanish B - HL</b>	4	8	SPA 101 & SPA 102
	5 or higher	8	SPA 201 & SPA 202
<b>Sports, Exercise &amp; Health Science - HL</b>	4 or higher	3	EXW 152
<b>Sports, Exercise &amp; Health Sciences</b>	5 or higher	3	EXW 152
<b>Visual Arts - HL</b>	4	3	ART 112
	5 or higher	6	ART 110 & ART 112
<b>World Religions - SL</b>	5 or higher	3	Elective Credit

## 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.

Distance Education students outside of Arizona, after completion of the institution's internal complaint process, may appeal SARA related complaints to the [Arizona Community College Coordinating Council \(AC4\)](#).

The Arizona SARA Council has jurisdiction over Arizona SARA approved institutions regarding non-instructional complaints for distance education students. Upon completion of the institution's and AC4's complaint process, a student may register a complaint with the Arizona SARA Council. Visit the [AZ SARA Complaint Process website](#) for more information. For students who are residents of states outside of Arizona, consumer inquiries also may be directed to the following [Consumer Protection Agency](#) of the state in which they reside.

Students can view the [State Authorization website](#) for more information.

## Professional Licensure

Yavapai College provides disclosures through a good faith effort whether a degree or certificate program meets academic requirements for professional licensure or certification outside of Arizona. The [Professional Licensure by State](#) table identifies whether professional licensure:

- Meets applicable professional licensure requirements;
- Does not meet applicable professional licensure requirements; or
- Have not been able to determine whether a program meets the professional licensure requirements.

Please see the [Notice to Students Regarding Professional Licensure and Certification](#) for more information on the General Disclosure Statement (34 CFR 668.43).

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

## 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 AGECE 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).

## Admission, Registration & Records

### Admission

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.

## 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
- H. Filed an Arizona income tax return with the Department of Revenue during the previous tax year.
- I. A spouse or dependent(s) of a veteran that has been discharged within the last 36 months from a period of active duty that was 90 days or longer AND using either VA Chapter 30 or Chapter 33 benefits may also qualify. Call 928.717.7613 for more information.

[www.yc.edu/residency](http://www.yc.edu/residency)

## 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.

[www.yc.edu/residency](http://www.yc.edu/residency)

## 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 Admission, 1100 E. Sheldon St., Prescott, AZ 86301. Visit [www.yc.edu/is](http://www.yc.edu/is) 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 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. Credits from nationally accredited institutions will be considered on a case-by-case basis and should be brought to the attention of the Office of the Registrar.

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## Registration

### Registering for Classes

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 to understand these regulations. Students register for classes via secure log in at [www.yc.edu/register](http://www.yc.edu/register). Students who do not have approved financial aid must pay all tuition/fees at the time of registration. Detailed information regarding registration (dates, tuition rates, 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 a 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.

### 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 audit fee.

## 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 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).

## 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 withdraw will be noted with a "Y."
- For deadlines and effects of changes, see [www.yc.edu/academiccalendar](http://www.yc.edu/academiccalendar).
- It is strongly recommended that students see an academic advisor prior to a complete withdrawal from the College.

## 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
V	COVID 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
		<b>7</b>		<b>24</b>

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

## 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.

## 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 (maximum of 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.

## 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.

## Records

### 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 ("confidential hold") in person or in writing. 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, ID number, the most recent previous educational agency or institution attended, photographs, email address, and grade level.

### 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.

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- 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:

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

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)(i)(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))

## Transcripts

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

- **Order online**
  - 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.yc.edu/transcripts](http://www.yc.edu/transcripts)
- **Order by mail**

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 to be sent. A \$10 check or money order must be included for each 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 below. 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.

*Yavapai College Office of the Registrar  
1100 E. Sheldon St.  
Prescott, AZ 86301*

# Student Rights & Responsibilities

## 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 academic policy and 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. Cheating includes-but is not limited to- the 1) use of any unauthorized assistance in taking quizzes, tests, or examinations; 2) use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; 3) acquisition, without permission, of tests or other academic material belonging to College faculty or staff; or 4) engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.

### 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.
1. **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.
2. **Referral to the Code of Conduct Procedures under Section VII:** 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 Student Conduct Officer for review under Section VII. Sanctions may include suspension, expulsion, and/or revocation of degree and/or certificate.
3. **Legal measures** may be taken by Yavapai College, including referral to law enforcement or civil action.

## 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.

## 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.

## **Academic Requirements**

Yavapai 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.

## **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.

## **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.

## **Code of Conduct**

The Office of Student Conduct and Community Standards supports the educational mission of Yavapai College by upholding the standards of conduct. The intended purpose of the Code of Conduct is to maintain order and stability and to preserve all educational functions by setting forth standards of behavior and by promoting respect for the rights of all individuals.

Our goal is to provide the student with an overview of the student disciplinary process, serve as a resource for addressing student conduct, and to help you stay safe on campus. If you have any questions, need assistance or would like to consult with a staff member in the Office of Student Conduct and Community Standards, please call 928.776.2211. The Code of Conduct can be reviewed at <https://www.yc.edu/v6/student-services/docs/code-of-conduct.pdf>.

## **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.

## **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/v6/college-police/clery.html>. The Clery Report is released each October for the previous 12 months, and is compiled by the Yavapai College Police Department.

## **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.

## 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 admission 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 a general education course, or any course that has designated the prerequisite of Reading Proficiency, must demonstrate proficiency in reading either by passing a reading assessment or by meeting another measure. The English/Reading placement chart is posted within the Yavapai College Testing Services website at [www.yc.edu/testingservices](http://www.yc.edu/testingservices). Students not meeting a measure as listed in the chart will be required to complete ENG 085 before enrolling in these courses.

### 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, reading and math skills assessment prior to enrollment (there are several measures for meeting these requirements). 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.

### 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 of Students (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 of Students (or designee) is final.

## 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.

## Student Appeals/Complaints

### 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. Students may submit a Formal Statement of Student Complaint here: <https://www.yc.edu/v6/student-services/nonacademic.html>

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 Students 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 Students regarding a non-academic complaint is final.

Distance Education students outside of Arizona, after completion of the institution's internal complaint process, may appeal SARA related complaints to the [Arizona Community College Coordinating Council \(AC4\)](#).

The Arizona SARA Council has jurisdiction over Arizona SARA approved institutions regarding non-instructional complaints for distance education students. Upon completion of the institution's and AC4's complaint process, a student may register a complaint with the Arizona SARA Council. Visit the [AZ SARA Complaint Process website](#) for more information. For students who are residents of states outside of Arizona, consumer inquiries also may be directed to the following [Consumer Protection Agency](#) of the state in which they reside.

Students can view the [State Authorization](#) website for more information.

## 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. Visit [www.yc.edu/academiccomplaints](http://www.yc.edu/academiccomplaints) for additional information and to submit the appeal.

### 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 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 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 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 or designee is considered final.

## 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.

## Title IX Policy Statement

Yavapai College does not discriminate in its employment practices, its admission practices or in its educational programs or activities on the basis of sex. Yavapai College also prohibits retaliation against any person opposing discrimination or participating in any discrimination investigation or complaint process internally or externally. Reports of misconduct, questions regarding Title IX, and concerns about noncompliance should be directed to the Title IX Coordinator. For a complete copy of the policy or for more information, please contact the Title IX Coordinator, Monica Belknap at [Monica.Belknap@yc.edu](mailto:Monica.Belknap@yc.edu), 928-776-2211 or the Assistant Secretary of Education within the Office for Civil Rights (OCR) at <https://www2.ed.gov/about/offices/list/ocr/index.html>. Additional information may be found by visiting the College Title IX webpage: [www.yc.edu/T9](http://www.yc.edu/T9) .

## 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](#) (10.09).

## 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 Resources

### Academic Success, Advising and Counseling

Students start their journey with an assigned Enrollment Advisor to help them navigate their first semester 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. After completion of their first semester, students are transitioned to their Retention Advisors to help them stay on track through the completion of their academic goals 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. Advisors provide support to students during their entire college experience.

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

- Student athletes
- International students
- Majors in nursing, paramedicine, aviation, radiologic technology
- Financial aid recipients who have need to file an appeal
- 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 <https://www.yc.edu/v6/student-services/wellness/> for more information.

### Adult Basic Education

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 admission 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.

## 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 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, provides critical thinking, service and leadership activities. 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, and be at least 17 years old by the start of their first semester in the program. High School students that have taken Yavapai College courses must also submit a current YC transcript that reflects a 3.50 GPA. Continuing students with a grade point average of at least 3.50 may also apply for admission. However, students must be pursuing their first college degree.

Required application materials include transcripts, letters of recommendation, a Yavapai College academic plan (continuing students 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. Applications are open November 1 - March 1. Finalists will be invited for an interview in April.

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:

- Tuition waivers for up to 15 credit hours per semester
- Book scholarship for \$300 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)).

## 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.



## 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.

## Discover Yavapai Information Session

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 session about admission, 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 Admission Office at 928.717.7777 or 928.634.6510.

## Campus Tours

Yavapai College offers 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 Admission Office at 928.717.7777 or 928.634.6510.

## 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
- Make satisfactory academic progress as outlined in policy

## 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 2021-22 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 2021-22 FAFSA is currently available. The 2022-23 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 MyYC, Students, and My Financial Aid. From there you can check for any additional, required documents, complete a YC Foundation Scholarship and view your Financial Aid Overview.
- The 'Financial Aid Overview' is where you may view your awards, enrollment details and satisfactory progress information.
- The award amount is disbursed after the add/drop period is over for the term or part of term you are enrolled in. It is applied to any outstanding charges you may still owe the college; any remaining balance at the time will be refunded to the student.

## **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 66.67% or greater; Maximum time frame of 150% for completion of a degree or certificate. SAP is calculated 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 during the time the credits were taken. Please visit the Financial Aid website at: [www.yc.edu/v6/financial-aid/policies.html](http://www.yc.edu/v6/financial-aid/policies.html). For more detailed information.

## **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/v6/financial-aid/policies.html](http://www.yc.edu/v6/financial-aid/policies.html). We suggest that you contact Financial aid prior to withdrawing to see what affect your withdrawal may have on aid already received.

## **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.

## **Housing**

Yavapai College Residence Halls are drug and alcohol free. Yavapai College offers two co-ed Residence Halls, totaling 220 students. Each hall has laundry facilities, Wi-Fi, cable in the communal areas, and private bathrooms in each room. Rooms are single-gender. The halls include a common kitchen area, study rooms, a pool table, a ping pong table, a sand volleyball court, and a basketball court. Applications are accepted until all bed spaces are full and taken first come first placed.

All students who are considering applying for on campus housing should review the [Housing Handbook](#) for the rules and regulation that govern residence hall living.

## Housing Reservations

Please visit [www.yc.edu/housing](http://www.yc.edu/housing) to learn more about the [annual cost of living on campus](#) and for application instructions.

Reservations are secured by the Office of Residence Life upon receipt of all required materials, providing rooms are still available. Complete application (including the deposit and immunization record) 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.

## Housing Regulations

- Housing contracts are for the full academic year - both fall and spring semester
- Residents must be enrolled full time for the duration of the annual contract
- Residents are subject to the rules and regulations governing residence hall living as declared in the Housing Handbook and Student Code of Conduct
- The Office of Residence Life 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.

## 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).

## 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.

## 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 receive incoming mail and packages through the Delivery Pod (lockers) in building 3 next to the Rider Diner. For more information: [www.yc.edu/mailcenter](http://www.yc.edu/mailcenter).

## 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).

## 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.

## Regional Economic Development Center (REDC)

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.

## 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.

## 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/v6/campus-activities/>

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

Verde Valley campus office: M-122

## Student OneCard

The YC OneCard is your multipurpose mobile student ID. Current YC students, faculty and staff can add their OneCard to their Apple Wallet or Google Pay, and use their smart phone and Apple Watch around campus. By simply placing your phone or Apple Watch near a reader where physical campus IDs are accepted, you can enter residence halls, CTEC buildings, buy lunch, print documents, and more based on your current permissions. Flexicash and local discounts available with your YC ID.

### OneCards are required for:

- Residence Hall access, meal plan privileges, flexi-cash debit card privileges, and certain classes and class locations
- Physical Photo ID cards may be obtained if you are part of the nursing or allied health programs. They will be shipped to the address we have on file. Physical ID cards expire three years after the issue date.

## 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).

## TRIO Programs

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

## Veterans Education and Transition Services (VET 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 VET Services. Processing may take weeks, so early planning and class registration is highly recommended. Note: Students seeking to use Military Tuition Assistance (TA) as a method of payment should contact the Bursar's Office at 928-776-2138 or [bursar@yc.edu](mailto:bursar@yc.edu). Information about TA can be found online at [www.yc.edu/bills](http://www.yc.edu/bills).

To begin using a VA education benefit at Yavapai College, the student must submit a signed VET Services Start-Up application and a Certificate of Eligibility (COE) for the specific VA education benefit to be used. In addition, an online written request is required from the student each semester upon registering for classes to indicate their intent to use their benefits. Instructions can be found at [www.yc.edu/veterans](http://www.yc.edu/veterans).

Students using VA education benefits are eligible to sign up for an interest-free payment plan each semester to defer the cost of tuition, fees and books. They 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). Instructions for the Veterans Payment Plan are available at [www.yc.edu/veterans](http://www.yc.edu/veterans) and by logging into the MyYC student portal.

In accordance with 38 USC 3679(e), students using a benefit under Chapter 31 or Chapter 33 will not be penalized for failing to meet their financial obligations to the college as a result of a delay in VA payments to the school for benefits-payable costs. Students are otherwise responsible for making payment according to their Veterans Payment Plan and other applicable college policies.

Important guidelines for using VA education benefits:

- VA education benefits may only be used for classes that fulfill requirements on an approved degree or certificate program. Rare exceptions may exist for students using benefits under Chapter 31 Veteran Readiness and Employment (VRE). In addition, special rules may be applicable to specific programs of study, in accordance with VA and state regulations.
- VA requires students to order an official transcript from each college, university, and technical school previously attended, and from their military branch. Official transcripts must be sent directly from each school to Yavapai College Office of the Registrar, 1100 E. Sheldon Street, Prescott, Arizona, 86301.
- Students must maintain good academic standing in accordance with Yavapai College Standards of Academic Progress.
- A student may be required to repay an overpayment of benefits to the VA resulting from repeated courses (previously completed at YC or through transfer credit) or for withdrawn courses. When in doubt about a particular situation, it is important to consult VET Services proactively to avoid potential benefits overpayment.
- Students should immediately notify VET Services of any enrollment changes to avoid or minimize potential benefits overpayment.
- Taking classes of varying lengths can impact a student's benefit payments over the course of the semester. VET Services staff are available to help students plan classes for consistent monthly benefit payments where possible.

Free college prep courses are available to veterans and military-affiliated students seeking to refresh or improve their academic skills without affecting their remaining benefits entitlement. Core academic subjects



including mathematics, writing, and reading-provided by the Adult Basic Education program-are designed to prepare students for college-level coursework. Interested students should contact VET Services at [www.yc.edu/veterans](http://www.yc.edu/veterans) to discuss individual needs for these and other services.

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).

For more information call 928.717.7613, email [vet.services@yc.edu](mailto:vet.services@yc.edu), or visit online at [www.yc.edu/veterans](http://www.yc.edu/veterans).

## **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.

## **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).

## Earning a Degree or Certificate

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.

Courses approved as satisfying General Education requirements for all degrees are listed in the section entitled "General Education Courses."

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. On an exception basis, "S" grades may be allowed in the AGECE for transfer credit, if documentation collected by the community college indicates that the "S" grade issued was the only option for the student and the "S" is "C or Better." *For Spring 2020 only, students who chose an "S" grade in an AGECE course in response to the COVID-19 emergency may use this grade to complete their AGECE requirements. Arizona Universities will accept "S" grades earned in AGECE courses during Spring 2020.*
  - 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 or current catalog year requirements 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 for a degree program. If a certificate program requires 12-29 semester hours, a minimum of half the total hours must be completed in residence; if a 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;

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 Degrees.

## 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.

## Programs Requiring Selective Admission

### Requirements for Admission to the Aerospace Science AAS - Airplane Operations Concentration

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 in February 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 physical examination, 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).

#### Pre-program entry requirements:

- Current Arizona certification as a CNA, LNA or successful completion of AHS 114 or equivalent within three years of the application deadline.
- Current pre-nursing workshop attendance certificate (valid within 12 months of the application deadline).

### 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; immunizations as outlined in application; 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's website [www.yc.edu/ems](http://www.yc.edu/ems). 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, however this can be waived. For more information contact Tresa Hibbin at [tresa.hibbin@yc.edu](mailto:tresa.hibbin@yc.edu).

### 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).

## **Associate of Applied Science Degree Program Requirements**

The Associate of Applied Science (AAS) degree requires the completion of a minimum of 60 credit hours. The degree prepares students for entry-level employment in a specific occupational area or enhances the skills of students who are already vocationally or personally committed to a particular technical field. The AAS degree is also being used in transfer in some career and technical areas. There is a growing number of BAS degrees that AAS degree students can transfer into. For information on transferring an AAS degree to a BAS visit AZTransfer AAS to BAS.

### **General Education (19 credits)<sup>1</sup>**

- College Composition or Applied Communication **Credits: 6**  
*Complete one of the Composition/Applied Communication options, or the courses listed in the individual degree program.*
- Mathematics **Credits: 3**  
*Complete any math (MAT) course numbered 100 or higher or the MAT course required in the individual degree program.*
- Physical and Biological Sciences **Credits: 4**  
*Select and complete one laboratory science course from the approved list of General Education courses or the Physical and Biological Sciences course(s) required in the individual degree program.*
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits: 6<sup>1</sup>**  
*Select and complete two courses with different prefixes from the approved General Education course lists or the course(s) required in the individual degree program.*

**Note:** <sup>1</sup> General Education hours for some AAS degrees may total 16 credits (with the Arts & Humanities and/or Social & Behavioral Sciences category requiring 3 credit hours). See individual degree programs for requirements.

### **Program Requirements and Electives (Minimum of 41-44 credits)**

- Major and Elective requirements and credit hours are specified in the individual degree program the student is pursuing.

## 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.

**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 courses within an AGEC 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:

1. 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).
2. Arizona General Education Curriculum B-AGEC-B fulfills the lower division general education requirements of business majors.
3. 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:

1. Associate of Arts-AGEC-A
2. Associate of Arts in Elementary Education-AGEC-A
3. Associate of Arts in Fine Arts-AGEC-A
4. Associate of Business-AGEC-B
5. 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.

## 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 AGECE 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/Class (ERG) Awareness** - One course emphasizing ethnic/race/gender/class awareness is required.
2. **Global/International or Historical (GIH) Awareness** - One course emphasizing contemporary global/international awareness or historical awareness is required.

## General Education Categories/Courses

- **First-Year Composition** *Approved course sequences are listed in each degree program.*
- **Mathematics Requirement** *Approved course sequences are listed in each degree program.*
- **Physical and Biological Sciences Requirement**  
*Select from the following courses to fulfill the requirements of the Physical & Biological Sciences component of this degree.*
  - AGS 103 - Plant Biology **Credits: 4**
  - AHS 160 - Introduction to Human Anatomy and Physiology **Credits: 4**
  - BIO 100 - Biology Concepts **Credits: 4**<sup>1</sup>
  - BIO 103 - Plant Biology **Credits: 4**
  - BIO 105 - Environmental Biology **Credits: 4**
  - BIO 156 - Human Biology for Allied Health **Credits: 4**<sup>1</sup>
  - BIO 160 - Intro 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 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**
- 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**

<sup>1</sup>Duplicate credit for BIO 100 and BIO 156 will not be awarded.

- **Arts and Humanities Requirement**

*Select from the following courses to fulfill the requirements of the Arts & Humanities category.*

- ART 112 - Two-Dimensional Design **Credits: 3**
- ART 113 - Three-Dimensional Design **Credits: 3**
- 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 210 - Introduction to Rhetoric **Credits: 3** IWR 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 GIH
- ENG 230 - Introduction to Literature **Credits: 3** IWR
- ENG 237 - Women in Literature **Credits: 3** IWR ERG GIH
- ENG 240 - American Literature to 1865 **Credits: 3** IWR ERG
- ENG 241 - American Literature 1865 to Present **Credits: 3** IWR ERG GIH
- ENG 242 - Introduction to Shakespeare **Credits: 3** IWR ERG GIH
- ENG 298 - Special Topics in Literature **Credits: 3** IWR
- 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
- HUM 101 - Introduction to Popular Culture **Credits: 3**
- HUM 202 - Introduction to Mythology **Credits: 3** IWR ERG GIH
- HUM 205 - Science, Culture and Technology **Credits: 3**
- HUM 236 - American Arts and Ideas **Credits: 3** IWR ERG
- HUM 241 - Humanities I **Credits: 3** ERG GIH



- HUM 242 - Humanities II **Credits: 3** ERG GIH
- 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** ERG GIH
- PHI 103 - Introduction to Formal Logic **Credits: 3** GIH
- PHI 105 - Introduction to Ethics **Credits: 3** ERG GIH
- PHI 110 - Logic and Critical Thinking in the Digital Age **Credits: 3** ERG GIH
- PHI 122 - Science and Religion **Credits: 3** ERG GIH
- PHI 204 - Medical Ethics **Credits: 3** IWR ERG GIH
- PHI 210 - Environmental Ethics **Credits: 3** IWR ERG GIH
- PHI 215 - Philosophy and Film **Credits: 3** IWR ERG GIH
- PHI 220 - Happiness and the Meaning of Life **Credits: 3** IWR ERG GIH
- PHI 233 - Philosophy of Religion: East and West **Credits: 3** IWR ERG GIH
- PHI 238 - Philosophy and Literature **Credits: 3** IWR ERG GIH
- PHI 244 - Existentialism **Credits: 3** IWR ERG GIH
- REL 101 - Introduction to World Religions **Credits: 3** ERG GIH
- REL 200 - Asian Mysticism **Credits: 3** IWR ERG GIH
- REL 203 - Native Religions of the World **Credits: 3** IWR ERG GIH
- REL 205 - Life, Sex, and Death IWR ERG GIH
- REL 273 - Judaism **Credits: 3** IWR ERG GIH
- 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
- SPA 245 - Hispanic Heritage in the Southwest: Culture and Language **Credits: 3** ERG GIH
- THR 135 - Introduction to the Theater **Credits: 3**
- THR 250 - American Cinema **Credits: 3** IWR

## Note:

IWR = This course meets the requirements of the Intensive Writing and Critical Inquiry component.

ERG = This course meets the requirements of the Ethnic/Race/Gender/Class awareness area.

GIH = This course meets the requirements of the Global/International or Historical awareness area.

- **Social and Behavioral Sciences Requirement**

Select from the following courses to fulfill the requirements of the Social and Behavioral Sciences component of this degree.

- AJS 123 - Ethics and Criminal Justice **Credits: 3**
- ANT 101 - Stones, Bones, and Human Origins **Credits: 3**
- ANT 102 - Introduction to Cultural Anthropology **Credits: 3** <sup>ERG GIH</sup>
- ANT 104 - Buried Cities and Lost Tribes **Credits: 3** <sup>GIH</sup>
- ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective **Credits: 3** <sup>GIH</sup>
- ANT 231 - Southwestern Archeology **Credits: 3**
- ANT 232 - Indians of the Southwest **Credits: 3** <sup>ERG</sup>
- ECE 210 - Infant and Toddler Development **Credits: 3**
- ECE 234 - Child Development **Credits: 3**
- ECN 110 - Economics of Sports **Credits: 3** <sup>ERG</sup>
- ECN 235 - Principles of Economics-Macro **Credits: 3**
- EDU 210 - Cultural Diversity in Education **Credits: 3** <sup>ERG</sup>
- EXW 152 - Personal Health and Wellness **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>
- GEO 210 - Society and Environment **Credits: 3**
- NTR 145 - Food and Culture **Credits: 3** <sup>GIH</sup>
- PSY 101 - Introductory Psychology **Credits: 3**
- PSY 230 - Introduction to Statistics in the Social and Behavioral Sciences. **Credits: 3**
- PSY 234 - Child Development **Credits: 3**
- PSY 245 - Human Growth and Development **Credits: 3**
- PSY 277 - Human Sexuality **Credits: 3** <sup>ERG</sup>
- SOC 101 - Introduction to Sociology **Credits: 3** <sup>ERG</sup>
- SOC 140 - Sociology of 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 220 - Introduction to Social Work **Credits: 3**
- SOC 230 - Introduction to Statistics in the Social and Behavioral Sciences **Credits: 3**
- SOC 250 - Social Problems **Credits: 3** <sup>ERG</sup>

## Note:

<sup>IWR</sup>= This course meets the requirements of the Intensive Writing and Critical Inquiry component.

<sup>ERG</sup> = This course meets the requirements of the Ethnic/Race/Gender/Class awareness area.

<sup>GIH</sup> = This course meets the requirements of the Global/International or Historical awareness area.

- **Communication Requirement**

*Select from the following courses to fulfill the requirements of the Communication category.*

- 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**

- **World Languages**

*Select from the following courses.*

- ASL 101 - Beginning American Sign Language I **Credits: 4**
- ASL 102 - Beginning American Sign Language II **Credits: 4**
- ASL 201 - Intermediate American Sign Language I **Credits: 4**
- ASL 202 - Intermediate American Sign Language II **Credits: 4**
- SPA 101 - Beginning Spanish I **Credits: 4**
- SPA 102 - Beginning Spanish II **Credits: 4**
- SPA 201 - Intermediate Spanish I **Credits: 4** ERG GIH
- SPA 202 - Intermediate Spanish II **Credits: 4** ERG GIH

## **Note:**

**IWR** = This course meets the requirements of the Intensive Writing and Critical Inquiry component.

**ERG** = This course meets the requirements of the Ethnic/Race/Gender/Class awareness area.

**GIH** = This course meets the requirements of the Global/International or Historical awareness area.

# Degrees & Certificates

## 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 AGECEC with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGECEC upon admission to one of the state universities in Arizona.*

**Students must complete a course from each of the following AGECEC 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.*

## General Education Requirements (AGECEC-A) (35 credits)

*Minimum credit hours are listed for each category.*

- [First-Year Composition](#) (6 credits)
- [Mathematics](#) (3 credits)
- [Physical and Biological Sciences](#) (8 credits)
- [Arts and Humanities](#) (6 credits) (Select from two different prefixes)
- [Social and Behavioral Sciences](#) (6 credits) (Select from two different prefixes)
- [Options](#) - Select 6 credits from:
  - Any course(s) from the categories above
  - [Communication](#)\*
  - [World Languages](#)

### **Note:**

*\*Communication is not required for an AGECEC, but at least 3 credits from the Communication list will be required for an Associate's degree.*

## Major and Elective Studies (25 credits)

Visit <http://www.aztransfer.com> for additional information about transfer and majors. The 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. It is recommended that you meet with an Academic Advisor to assist you with choosing courses.

**Note:** A course from the Communication list must fulfill 3 of the 25 elective credit hours if not applied to the AGEC.

Majors
Administration of Justice Studies
Anthropology
Art History
Communication
Early Childhood Education
English
Exercise Science/PE-Health
Geography
History
Humanities
Mathematics
Modern Languages
Nutrition
Philosophy
Psychology
Religious Studies
Secondary Education
Social Work
Sociology

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, AHS 160, AHS 230, AJS (except AJS 291), ANT, ART, ASL, BIO, BSA, CHM, CHP, CNT 100 (only), COM, CRW, CSA, CSC, DAN\*, ECE, ECN, EDU, EGR, ENG, ENV, EXW, FMA, GEO, GLG, HIS, HUM, MAT (except MAT 100), MGT, MUS, NSG, NTR, PHE\*, PHI, PHY, 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 Admission 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**

∞**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 (AGEC-A) (35 credits)

- [First-Year Composition](#) (6 credits)
- [Mathematics](#) (3 credits)
- [Physical and Biological Sciences](#) (8 credits)  
**Note:** *Complete at least one Physical Science and one Life Science Lab course. Physical Sciences include: Geography, Physics, Chemistry, Geology; Life Sciences include: Biology, Anatomy, Botany.*
- HIS 231 - United States History I (3 credits) <sup>\*Required Arts & Humanities</sup>
- [Arts and Humanities](#) (3 credits)
- ECE 234 - Child Development (3 credits) <sup>\*Required Social & Behavioral Science</sup>
- [Social and Behavioral Sciences](#) (3 credits)
- Options - Select 6 credits from:
  - Any course(s) from the categories above
  - [Communication](#)\*
  - [World Languages](#)

**Note:** \*Communication is not required for an AGEC, but at least 3 credits from the Communication list will be required for an Associate's degree.

## Major and Elective Studies (27 credits)

- AJS 290 - Constitutional Law: Civil Liberties and Civil Rights **Credits: 3**
- ECE 240 - Family and Community Partnerships **Credits: 3**
- EDU 180 - Education Technology: Teaching and Learning in a Digital Age **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**
- EDU 230 - Language and Literacy Experiences **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. (EDU 200, MAT 156, MAT 157, EDU 230)
3. Analyze teaching styles as they relate to student learning styles. (EDU 200, EDU 210, EDU/ECE 222)
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. (ECE 210, EDU/ECE 222, ECE 240)
8. Utilize technology to organize information, analyze and evaluate data, and complete tasks more efficiently. (EDU 180)

## Associate of Arts in Fine Arts

**Credit Hours Required:** 61-62

The Associate of Arts in Fine Arts degree requires completion of 62 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 AGECE with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGECE upon admission to one of the state universities in Arizona.*

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

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

### General Education Requirements (AGECE-A) (35 credits)

*Minimum credit hours are listed for each category.*

- [First-Year Composition](#) (6 credits)
- [Mathematics](#) (3 credits)
- [Physical and Biological Sciences](#) (8 credits)
- [Arts and Humanities](#) (6 credits) (options vary depending on concentration)
- [Social and Behavioral Sciences](#) (6 credits) (Select from two different prefixes)
- [Options](#) - Select 6 credits from:
  - Any course(s) from the categories above
  - [Communication](#)\*
  - [World Languages](#)

**Note:**

*\*Communication is not required for an AGECE, but at least 3 credits from the Communication list will be required for an Associate's degree.*



## Major and Elective Studies (26-27 credits)

Choose Art, Music or Performing Arts Concentration

### Art Concentration

#### **Art Core Requirements (21 credits)**

- ART 110 - Drawing I **Credits: 3**
- ART 111 - Drawing II **Credits: 3**
- ART 112 - Two-Dimensional Design **Credits: 3**
- ART 113 - Three-Dimensional Design **Credits: 3**
- ART 114 - Color **Credits: 3**
- ART 120 - Ceramics I **Credits: 3**
- ART 180 - Sculpture I **Credits: 3**

#### **Art Electives: Select 6 credit hours**

**Notes:** The transferability of ART 137, ART 139/FMA 139, ART 140, ART 144, and ART 154 should be confirmed with the transfer institution. In the final term students are encouraged to select electives from their intended BFA studio concentration.

It is recommended that students complete the Communication requirement as part of their AGECE. If not applied to the AGECE, a course from the Communication list must fulfill 3 of the 6 elective credit hours.

- Communication **Credits: 0-3**
- ART 121 - Ceramics II **Credits: 3**
- ART 137 - Adobe Photoshop I **Credits: 3**
- ART 139 - Fundamentals of Video Editing **Credits: 3**
- ART 140 - Jewelry I **Credits: 3**
- ART 144 - Furniture and Woodworking I **Credits: 3**
- ART 154 - Digital Photography I **Credits: 3**
- ART 160 - Printmaking 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 210 - Life Drawing I **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 and/or MUS 151A and/or MUS 151B **Credits: 4**
- MUS 231 - Advanced Integrated Theory I **Credits: 4**
- MUS 232 - Advanced Integrated Theory II **Credits: 4**

### **Music Electives: Select 4 credit hours**

**Note:** A course from the Communication list must fulfill 3 of the 4 elective credit hours if not applied to the AGEC.

- Communication **Credits:** 0-3
- 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 (20 credits)**

- DAN 110 - Ballet I **Credits:** 3
- 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 Practicum **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**

**Note:** A course from the Communication list must fulfill 3 of the 7 elective credit hours if not applied to the AGECE.

- Communication **Credits:** 0-3
- DAN 111 - Modern Dance **Credits:** 2
- DAN 112 - Jazz & Tap **Credits:** 2
- DAN 120 - Ballet II **Credits:** 3
- 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. (ART 110, 111, 112, 113, 114, 120, 180)
2. Use safe practices with appropriate equipment, tools and materials. (ART 112, 113, 120, 180)
3. Exercise and exhibit quality craftsmanship. (ART 110, 111, 112, 113, 114, 120, 180)
4. Utilize, analyze and synthesize the principles and elements of design. (ART 110, 111, 112, 113, 114, 120, 180)
5. Identify historical and contemporary examples of the Fine Arts and Crafts. (ART 110, 111, 112, 113, 114, 120, 180)
6. Create a fine arts portfolio. (ART 111, 112)

#### **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

**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 AGECEC with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGECEC upon admission to one of the state universities in Arizona.*

**Students must complete a course from each of the following AGECEC 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.*

### **General Education Requirements (AGECEC-B) (35 credits)**

*Minimum credit hours are listed for each category.*

- [First-Year Composition](#) (6 credits)
- [Mathematics](#) (3 credits)
  - Students planning to attend NAU or UArizona, complete MAT 212
  - Students planning to attend ASU, complete either MAT 212 or MAT 220
- [Physical and Biological Sciences](#) (8 credits)
- CSA 110 - Introduction to Computer Information Systems (3 credits)
- [Arts and Humanities](#) (6 credits) (Select from two different prefixes)
- [Social and Behavioral Sciences](#) (6 credits) (Select from two different prefixes)
- [Options](#) - Select 3 credits from:
  - Any course from the categories above
  - [Communication](#)\*
  - [World Languages](#)

**Note:** \*Communication is not required for an AGECEC, but at least 3 credits from the Communication list will be required for an Associate's degree.

## Program Requirements (21 credits)

- ACC 131 - Principles of Accounting I **Credits: 3**
- ACC 132 - Principles of Accounting II **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**
- Quantitative Requirement
  - Students planning to attend NAU or UArizona, complete MAT 172
  - Students planning to attend ASU, complete either MAT 230 or Mathematical Analysis for Business (MAT 211) at Rio Salado**Credits: 3-5**

## Program Electives (6 credits)

*Select 2 of the following courses:*

- BSA 131 - Introduction to Business **Credits: 3**
- ECN 110 - Economics of Sports **Credits: 3**
- MGT 233 - Business Communication **Credits: 3** OR one course from Communication **MUST** be applied here (if not applied to the AGECE)

## Associate of General Studies

**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

- [First-Year Composition](#) (6 credits)
- [Mathematics](#) (3 credits)
- [Physical and Biological Sciences](#) (4 credits)
- [Arts and Humanities](#) (6 credits) <sup>1</sup>
- [Social and Behavioral Sciences](#) (6 credits) <sup>1</sup>
- [Communication](#) (3 credits)

**Note:** <sup>1</sup> Select from two different prefixes

### Major and Elective Studies (32 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 (minimum)

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 (including the Special Requirements) of the AGECS with a grade of "C" or higher, the student will receive recognition of completion on the transcript and guaranteed transferability of the AGECS upon admission to one of the state universities in Arizona.*

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

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

### General Education Requirements (AGECS) (38-41 credits)

- [First-Year Composition](#) (6 credits)
- MAT 220 - Calculus and Analytic Geometry I (Mathematics) (5 credits)
- [Physical and Biological Sciences](#) (8 credits)
- [Arts and Humanities](#) (6 credits) <sup>1</sup>
- [Social and Behavioral Sciences](#) (6 credits) <sup>1</sup>
- [Other Requirements](#) (7-10 credits)

**Note:** <sup>1</sup> Select from two different prefixes

### Major and Elective Studies (19-22 credits)

- Communication Credits: 3
- Select courses according to your transfer goal or intended major (including second language courses\*) to meet the 60 credit minimum. Choose from the following courses when completing this requirement: AGS 103 or BIO 103, BIO 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, EGR 102, GEO 103, GEO 212, GLG 101, GLG 102, MAT 167, MAT 187 (or MAT 182 and MAT 183), 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.*

Major
Biology
Chemistry
Geology
Physics, Astronomy

Visit <http://www.aztransfer.com> for additional information about transfer and majors. The 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. It is recommended that you meet with an Academic Advisor to assist you with choosing courses.

## 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 Admission 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)

**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.

**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.*

***This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.***

### General Education Requirements (AGEC-A) (35 credits)

*Minimum credit hours are listed for each category.*

- [First-Year Composition](#) (6 credits)
- [Mathematics](#) (3 credits)
- [Physical and Biological Sciences](#) (8 credits)
- [Arts and Humanities](#) (6 credits) (Select from two different prefixes)
- [Social and Behavioral Sciences](#) (6 credits) (Select from two different prefixes)
- [Options](#) - Select 6 credits from:
  - Any course(s) from the categories above
  - [Communication](#)\*
  - [World Languages](#)

**Note:** *\*Communication is not required for an AGEC, but at least 3 credits from the communication list will be required for an Associate's degree.*

## Arizona General Education Curriculum (AGEC-B)

**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 AGECE-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 AGECE-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 AGECE-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 AGECE-B also fulfills general education requirements for the Associate of Business degree 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 AGECE 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.*

***This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.***

### General Education Requirements (AGECE-B) (35 credits)

*Minimum credit hours are listed for each category.*

- [First-Year Composition](#) (6 credits)
- [Mathematics](#) (3 credits)
  - Students planning to attend NAU or UArizona, complete MAT 212
  - Students planning to attend ASU, complete either MAT 212 or MAT 220
- [Physical and Biological Sciences](#) (8 credits)
- CSA 110 - Introduction to Computer Information Systems (3 credits)
- [Arts and Humanities](#) (6 credits) (Select from two different prefixes)
- [Social and Behavioral Sciences](#) (6 credits) (Select from two different prefixes)
- [Options](#) - Select 3 credits from:
  - Any course from the categories above
  - [Communication](#)\*
  - [World Languages](#)

**Note:** *\*Communication is not required for an AGECE, but at least 3 credits from the Communication list will be required for an Associate's degree.*

## Arizona General Education Curriculum (AGEC-S)

Minimum Credit Hours Required: 38-41

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 twelve 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

***This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.***

### General Education Requirements (AGEC-S) (38-41 credits)

- [First-Year Composition](#) (6 credits)
- MAT 220 - Calculus and Analytic Geometry I (Mathematics) (5 credits)
- [Physical and Biological Sciences](#) (8 credits)
- [Arts and Humanities](#) (6 credits) <sup>1</sup>
- [Social and Behavioral Sciences](#) (6 credits) <sup>1</sup>
- [Other Requirements](#) (7-10 credits)

**Note:** <sup>1</sup> Select from two different prefixes

## Accounting - AAS

The Accounting degree program prepares students for employment in entry level positions in the accounting profession.

**Credit Hours Required:** 61

**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.*

### AAS General Education Requirements (19 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### Program Requirements (36 credits)

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 117 - Advanced Tax Planning and Preparation **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 160 - Computer Accounting with QuickBooks **Credits:** 3
- ACC 162 - Microsoft Excel and Access in Accounting Applications **Credits:** 3
- ACC 233 - Intermediate Accounting I **Credits:** 3
- ACC 234 - Intermediate Accounting II **Credits:** 3
- BSA 131 - Introduction to Business **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3

### Program Electives (6 credits)

*Select 6 credit hours from the following courses:*

- ACC 296 - Internship: Accounting **Credits:** 3
- BSA 237 - Legal Environment of Business **Credits:** 3
- ECN 236 - Principles of Economics-Micro **Credits:** 3
- MGT 132 - Ethics in Business **Credits:** 3
- MGT 233 - Business Communication **Credits:** 3 \*

*\* MGT 233 may be taken as an elective course if it is not used to fulfill the Applied Communication General Education requirement.*

## 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 131, ACC 132, ACC 233)
2. Perform managerial accounting functions using proper format and procedure.(ACC 132)
3. Prepare and interpret financial statements and reports for service, merchandising and manufacturing companies.(ACC 121, ACC 122, ACC 131, ACC 132, ACC 233, ACC 234)
4. Prepare complex tax returns and communicate the effects of tax rules for individuals, partnerships and corporations.(ACC 115, ACC 117, ACC 122, ACC 234)
5. Demonstrate professional business communication skills. (BSA 131, CSA 126, ACC 296, ECN 236, MGT 233)
6. Use current technology and software applications to input, manage, interpret and communicate financial information. (ACC 117, ACC 122, ACC 160, ACC 162, CSA 126, ACC 296)
7. Research and recommend resolution of business issues, including ethical implications of alternatives. (ACC 121, ACC 131, ACC 132, ACC 233, ACC 296, BSA 237, ECN 236, MGT 132)

## Administration of Justice - AAS

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.*

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities OR Social and Behavioral Sciences **Credits:** 3
- AJS 123 - Ethics and Criminal Justice **Credits:** 3 <sup>\*Required</sup>

### 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)

## 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.*

## AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- BIO 105 - Environmental Biology (Physical and Biological Sciences) **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

## 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
- ELT 101 - Basic Electricity **Credits:** 4
- ELT 130 - Introduction to Robotics **Credits:** 3
- ELT 165 - Programmable Logic Controllers **Credits:** 2
- 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
- MET 200 - SolidWorks for Non-Engineers **Credits:** 3
- 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. Replace and repair hydraulic and pneumatic system components. (MET 116, MET 160)
2. Fabricate and repair industrial machinery components. (CNC 102, IPT 160, WLD 112 or 113, 250, MET 116)
3. Safely utilize machine shop equipment. (AGS 101, CNC 101, IPT 110, IPT 160, IPT 261, ELT 101, MET 116)
4. Implement and control automated manufacturing processes. (AGS 101, CNC 101, 102, 201, ELT 101, 130, 165)
5. Repair and replace valves. (IPT 135, MET 116)
6. Design components and assemblies using Solid Works and Feature CAM. (AGS 101, CNC 201, MET 200)

## Aerospace Science (Airplane Operations/Technical Aviation/Unmanned Aircraft) - AAS

### IMPORTANT: [Professional Licensure Disclosure](#)

The Aerospace Science degree program prepares students for careers in aviation as 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:** 61-63

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

**Note:** *Select one or more of the three concentrations.*

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- GEO 212 - Introduction to Meteorology (Physical and Biological Sciences) **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### Concentrations - Select one or more

#### ***Airplane Operations Concentration (42 credits)***

- AVT 115 - Instrument Pilot Airplane Ground **Credits:** 4
  - AVT 116 - Instrument Pilot Airplane Flight **Credits:** 4
  - AVT 204 - Commercial Pilot Single-Engine Airplane Ground **Credits:** 2
  - AVT 205 - Commercial Pilot Multi-Engine Airplane Ground **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 Single-Engine Airplane Flight **Credits:** 6
  - AVT 218 - Commercial Pilot Multi-Engine Airplane Flight **Credits:** 6
  - AVT 225 - Flight Instructor Instrument Airplane Ground **Credits:** 2
  - AVT 226 - Flight Instructor Instrument Airplane Flight **Credits:** 2
  - 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 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 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

### **Technical Aviation Concentration (44 credits)**

- AVT 119 - Pre-Aviation Flight Simulation **Credits: 2**
- 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 (43-44 credits)**

- ART 139 - Fundamentals of Video Editing **Credits: 3 OR**  
FMA 139 - Fundamentals of Video Editing **Credits: 3**
- EGR 180 - CAD (Computer Aided-Drawing) with SolidWorks **Credits: 3 OR**  
MET 100 - Introduction to Manufacturing Technology **Credits: 4**
- AVT 119 - Pre-Aviation Flight Simulation **Credits: 2**
- 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 108, AVT 115, AVT 116, AVT 117, AVT 122, AVT 123, AVT 124, AVT 135, AVT 204, AVT 205, AVT 214, AVT 215, AVT 217, AVT 218, 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 115, AVT 116, AVT 117, AVT 122, AVT 123, AVT 124, AVT 135, AVT 204, AVT 205, AVT 214, AVT 215, AVT 216, AVT 217, AVT 218, AVT 221, AVT 225, AVT 226, AVT 236, AVT 245, AVT 246, AVT 247, AVT 260, AVT 261)
3. Fly or operationally control an aircraft under emergency conditions. (AVT 108, AVT 115, AVT 117, AVT 122, AVT 123, AVT 124, AVT 135, AVT 205, AVT 214, AVT 215, AVT 217, AVT 218, AVT 226, 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, AVT108, AVT 117, AVT 122, AVT 123, AVT 124, AVT 135, AVT 200, AVT 201, AVT 204, AVT 205, AVT 214, AVT 215, AVT 217, AVT 218, AVT 226, 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. (AVT108, AVT 115, AVT 116, AVT 117, AVT 122, AVT 123, AVT 124, AVT 135, AVT 204, AVT 205, AVT 214, AVT 215, AVT 217, AVT 218, AVT 225, 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

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- AGS 103 - Plant Biology OR BIO 103 - Plant Biology (Physical and Biological Sciences) **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> Select from two different prefixes

### 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 280)
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

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- MAT 187 - Precalculus (Mathematics) **Credits:** 5  
**OR** MAT 182 - Precalculus (Algebra) **and** MAT 183 - Precalculus (Trigonometry) **Credits:** 5
- CHM 151 - General Chemistry I (Physical and Biological Sciences) **Credits:** 5
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> Select from two different prefixes

### 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:** 60-61

### AAS General Education Requirements (16 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities OR Social and Behavioral Sciences **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)

## Business Office Professional - AAS

The Business Office Professional Program prepares students for entry-level employment in a variety of settings. Participants in this program can follow a direct academic path beginning with a Basic Certificate, progressing to a Professional Certificate, and then the AAS.

**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.*

### AAS General Education Requirements (19 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### 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 110 - Personal Finance **Credits:** 3
- BSA 130 - Business Financial Applications **Credits:** 3
- BSA 131 - Introduction to Business **Credits:** 3
- BSA 225 - Administrative Professional: Office Management **Credits:** 3
- OR CSA 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 140 - Microsoft Word **Credits:** 2
- MGT 132 - Ethics in Business **Credits:** 3
- MGT 140 - Organizational Behavior **Credits:** 3
- MGT 220 - Principles of Management **Credits:** 3

### Program Electives

*Select a minimum of 9 credit hours from the courses listed below:*

- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- AHS 173 - Legal and Ethical Issues in Healthcare **Credits:** 2
- CSA 107 - Technology Networking Tools (TNT) **Credits:** 1
- CSA 111 - Keyboarding **Credits:** 1
- CSA 138 - Microsoft Excel **Credits:** 2
- ENG 136 - Technical Writing **Credits:** 3
- LAW 102 - Legal Computer Applications **Credits:** 3
- LAW 107 - Law Office Management **Credits:** 3
- MGT 111 - Leadership & Innovation **Credits:** 1
- MGT 112 - Leadership & Collaboration **Credits:** 1
- MGT 113 - Leadership & Communication **Credits:** 1
- MGT 233 - Business Communication **Credits:** 3

## Program Outcomes

*Upon successful completion of the Business Office Professional Degree 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, MGT 220)
2. Analyze career opportunities for business office positions in all types and sizes of companies. (BSA 102, BSA 131, BSA 225, CSA 110)
3. Use technology to organize information and complete administrative tasks and responsibilities. (BSA 130, BSA 225, CSA 110, CSA 126, CSA 140)
4. Recognize soft skills needed by an employee and/or a member leader of a team to accomplish the goals of the organization. (BSA 102, BSA 225, MGT 132)
5. Demonstrate efficient procedures for accomplishing various administrative-related tasks that are appropriate and ethical. (BSA 130, BSA 131, BSA 225, CSA 126, MGT 132, MGT 220)
6. Develop appropriate technological- and personnel-related strategies as a leader of a team to accomplish the goals of the organization. (MGT 140, MGT 220)
7. Analyze and record business and personal financial transactions. (ACC 121, BSA 110, BSA 130)



## Computer Networking Technology - AAS

The Computer Networking Technology AAS degree is designed to provide students with the necessary skills to gain employment as an information technology professional with a focus on cybersecurity or network administration. Core classes focus on network configuration including routing and switching and operating systems. Cybersecurity concentration students learn how to secure a network with topics such as cybersecurity operations, network forensics, and penetration testing. Network Administration concentration students learn advanced routing and switching techniques and Windows and Linux server administration. Students interested in college transfer for Bachelor degrees in Cybersecurity, Network Administration, or Technology Management should see an academic advisor.

**Credit Hours Required:** 60-63

### AAS General Education Requirements (19 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> Select from two different prefixes

### Program Requirements

- CNT 101 - Networking and Cybersecurity Fundamentals **Credits:** 4
- CNT 105 - Cybersecurity Principles **Credits:** 3
- CNT 110 - A+ Computer Technician Certification **Credits:** 4
- CNT 118 - Operating System Fundamentals **Credits:** 3
- OR CNT 120 - Introduction to Windows Server **Credits:** 3
- CNT 131 - Linux System Administration **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

## Select the Cybersecurity or Network Administrator Concentration

### A. Cybersecurity Concentration

- CNT 135 - Security+: Implementing and Maintaining Network Security **Credits:** 3
- CNT 235 - Cybersecurity Operations **Credits:** 3
- CNT 250 - Securing Network Devices **Credits:** 3
- CNT 260 - Cybersecurity Forensics **Credits:** 3
- CNT 275 - Penetration Testing and Vulnerability Assessment **Credits:** 3
- CNT 293 - CNT Project: Cybersecurity **Credits:** 2

### B. Network Administrator Concentration

- CNT 119 - Windows Server I **Credits:** 3
- CNT 160 - Cisco Routing and Switching III **Credits:** 3
- CNT 219 - Windows Server II **Credits:** 3
- CNT 220 - Windows Server III **Credits:** 3
- CNT 294 - CNT Project **Credits:** 2

## 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 medium to large-sized computer network. (CNT 101)
2. Describe the terms and technologies that comprise the field of cybersecurity, and implement strategies for managing an information security program. (CNT 105)
3. Maintain and repair personal computers. (CNT 110)
4. Perform administrative and troubleshooting tasks on operating systems. (CNT 118, CNT 120)
5. Administer and secure the Linux operating system. (CNT 131)
6. Describe network protocols and perform basic network device configuration. (CNT 140)
7. Configure Cisco routing, switching, and wireless technologies. (CNT 150)
8. Write and debug programs and scripts for application in a network environment. (CNT 190)

### **Option A:**

1. Configure and implement network security. (CNT 135)
2. Implement network security concepts and techniques in a security operations center.(CNT 235)
3. Install, troubleshoot, and monitor a secure network to maintain integrity, confidentiality, and availability of data and devices. (CNT 250)
4. Apply cybersecurity forensics techniques to network and computer systems. (CNT 260)
5. Identify and exploit network vulnerabilities. (CNT 275)
6. Analyze, design, implement, and present a cybersecurity project. (CNT 293)

### **Option B:**

1. Configure advanced routing and network security. (CNT 160)
2. Configure and maintain a Microsoft Windows Server network. (CNT 119, CNT 219)
3. Deploy an advanced Microsoft Windows Server environment. (CNT 220)

## Computer Systems and Applications - AAS

The Computer Systems and Applications degree program prepares students for careers as software professionals and for advanced studies in Computer Science. 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:** 60

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3 <sup>1</sup>
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>2</sup>

#### Notes:

<sup>1</sup> MAT 152 or equivalent or higher, except MAT 156 or 157

<sup>2</sup> Select from two different prefixes

### Program Requirements (32 credits)

- CSA 107 - Technology Networking Tools (TNT) **Credits:** 1
- CSA 110 - Introduction to Computer Information Systems **Credits:** 3
- CSA 126 - Microsoft Office for Windows **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 1 credit hour.*
- CSC 105 - Introduction to Programming **Credits:** 3
- 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

### Program Electives (9 credits)

#### **Select 9 credit hours from the following courses:**

- CNT 100 - Computer Networking Technologies I **Credits:** 3
- CNT 105 - Cybersecurity Principles **Credits:** 3
- CNT 110 - A+ Computer Technician Certification **Credits:** 4
- CNT 119 - Windows Server I **Credits:** 3
- VGD 121 - Video Game Development for Game Engines **Credits:** 3
- VGD 171 - Video Game Development - Programming **Credits:** 3

### Program Outcomes

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

1. Adapt technological skills to meet a need within a business or occupational environment.
2. Communicate ideas in a collaborative environment during all stages of software development.
3. Develop technology skills to solve problems and increase productivity.
4. Identify ethical issues in the business and occupational environment.

## 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 (Mining Option: 70)

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

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- BIO 105 - Environmental Biology (Physical and Biological Sciences) **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### 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.

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

*Note: For Arts & Humanities AND/OR Social & Behavioral Sciences choose from the approved options except ECE 210 or ECE 234, which will be applied to Program Requirements (below).*

**Note:** <sup>1</sup> Select from two different prefixes

### 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 - Child Guidance **Credits:** 3
- ECE 270 - Health, Safety and Nutrition **Credits:** 3
- ECE 280 - Observation and Assessment of the Young Child **Credits:** 3
- ECE 291 - Early Childhood Practicum **Credits:** 4

**Note:** Students must apply for practicum placement during the semester prior to enrolling in ECE 291 and must have completed ECE 200, ECE 202, ECE 222, ECE 230, ECE 234 and ECE 280. Evidence of completed application for fingerprint clearance and completed CPR and First Aid training will be required as part of a completed application.

## 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 280, 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 280, ECE 291)
7. Model leadership, advocacy and management skills in the field of early care and education. (ECE 250, ECE 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 280, ECE 291)
9. Implement basic health, safety, and nutritional practices with young children as required by regulation. (ECE 270, ECE 280, 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.

### AAS General Education Requirements (19 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> Select from two different prefixes

### 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 108 - 3-D Printer Operation and Maintenance  
**OR** TDP 108 - 3-D Printer Operation and Maintenance **Credits:** 3
- ELT 130 - Introduction to Robotics **Credits:** 3
- ELT 140 - Robot Vision **Credits:** 3
- ELT 141 - Electrical Apparatus **Credits:** 4
- ELT 150 - Embedded Systems and IoT **Credits:** 3
- ELT 296 - Internship: Electrical Technician **Credits:** 3  
**Note:** ELT 296 may be taken for a total of 6 credit hours.
- WLD 113 - Basic Welding II **Credits:** 2



## **B. 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 circuits. (ELT 126)
4. Troubleshoot pneumatic and hydraulic systems. (MET 160)
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 communication circuits. (ELT 221)
3. Troubleshoot pre-bugged equipment including symptom recognition, fault isolation and repair. (ELT 258)

### **Option B:**

1. Troubleshoot process control instrumentation and motor control circuits. (ELT 171, ELT 272)
2. Troubleshoot communication circuits. (ELT 221)
3. Troubleshoot pre-bugged equipment including symptom recognition, fault isolation and repair. (ELT 258, ELT 295)
4. Demonstrate the use of slings, common rigging hardware and safe loading practices. (MET 116)
5. Demonstrate the U.S. Mine Safety and Health Administration requirements for new miner training. (MET 150)
6. Operate SMAW and GMAW to industry requirements. (WLD 113)

## Fire Science - AAS

### **IMPORTANT:** [Professional Licensure Disclosure](#)

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. The Fire Science degree will allow students to declare a concentration in Suppression or Non-Suppression areas. This degree outline provides the list of core requirements and elective options.

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

**Note:** *Students preparing for transfer must complete College Composition I & II.*

**Credit Hours Required:** 61

### **AAS General Education Requirements (19 credits)**

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### **Program Requirements (42 credits)**

*Choose the Suppression or Non-Suppression Concentration*

#### **Suppression Concentration**

##### ***Suppression Core Requirements (30 credits)***

- FSC 102 - Principles of Fire and Emergency Services Safety & Survival **Credits:** 3
- FSC 104 - Hazardous Materials First Responder Operations **Credits:** 3
- FSC 105 - Firefighter I & II Certification Academy **Credits:** 12
- FSC 135 - Fire Prevention **Credits:** 3
- FSC 210 - Advanced Fire Behavior and Combustion **Credits:** 3
- FSC 235 - Fire Protection Systems **Credits:** 3
- FSC 241 - Building Construction for Fire Protection **Credits:** 3

#### **Suppression Electives: Select 12 credit hours**

- Select a minimum of 12 credit hours from **Program Electives** below.

## Non-Suppression Concentration

### *Non-Suppression Core Requirements (18 credits)*

- FSC 100 - Principles of Emergency Services **Credits: 3**
- FSC 102 - Principles of Fire and Emergency Services Safety & Survival **Credits: 3**
- FSC 135 - Fire Prevention **Credits: 3**
- FSC 210 - Advanced Fire Behavior and Combustion **Credits: 3**
- FSC 235 - Fire Protection Systems **Credits: 3**
- FSC 241 - Building Construction for Fire Protection **Credits: 3**

### **Non-Suppression Electives: Select 24 credit hours**

- Select a minimum of 24 credit hours from **Program Electives** below.

## Program Electives

- AJS 103 - Public Safety Report Writing **Credits: 3**
- FSC 137 - Fire Protection Hydraulics and Water Supply **Credits: 3**
- FSC 225 - Legal Aspects of Emergency Services **Credits: 4**
- FSC 234 - Fire Investigation **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**
- UAS 100 - Introduction to UAS **Credits: 3**
- UAS 120 - UAS Sensing Systems **Credits: 3**
- UAS 132 - UAS Flight Operations **Credits: 4**

## 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. Operate and test fire protection and detection systems. (FSC235)
4. Use basic terms and concepts associated with the chemistry and dynamics of fire. (FSC210)
5. Determine factors and principles related to fire resistance, building codes and fire suppression issues. (FSC241)
6. Describe the theory of fire behavior, phases of fire, types of fires, and methods of fire control. (FSC100, FSC105)
7. Identify various hazardous materials and their potential dangers. (FSC100, FSC104)

## 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.*

### AAS General Education Requirements

- First-Year Composition **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### 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 **Credits:** 3
- ART 131 - Graphic Design I **Credits:** 4
- ART 132 - Graphic Design II **Credits:** 4
- ART 137 - Adobe Photoshop I **Credits:** 3
- ART 200 - Art History I **Credits:** 3
- **OR** ART 201 - Art History II **Credits:** 3
- ART 231 - Digital Illustration **Credits:** 4
- ART 232 - Portfolio Development **Credits:** 2
- ART 234 - Advanced Graphic Design Projects **Credits:** 3
- ART 236 - Digital Pre-Press **Credits:** 2
- MGT 111 - Leadership & Innovation **Credits:** 1

### Program Electives

**Select 3 credit hours from the following courses:**

- ART 113 - Three-Dimensional Design **Credits:** 3
- ART 129 - Digital Drawing and Painting **Credits:** 3
- ART 154 - Digital Photography I **Credits:** 3
- ART 160 - Printmaking I **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, 131, 132, 231, 234, 236, MGT 111)
2. Develop creative solutions to visual problems. (ART 110, 112, 114, 130, 131, 132, 137, 231, 234, 236, MGT 111)
3. Utilize typography in design solutions. (ART 112, 131, 234)
4. Employ industry standard software. (ART 112, 130, 131, 132, 137, 231, 232, 234, 236)
5. Identify, analyze, synthesize and communicate design principles. (ART 110, 112, 114, 130, 131, 132, 137, 200/201, 231, 232, 234, 236)
6. Produce and maintain a professional portfolio. (ART 232, 234)
7. Articulate traditional and nontraditional art examples and how those examples affect popular visual literacy. (ART 110, 112, 114, 130, 131, 132, 137, 200/201, 231, 232, 234, 236)

## Gunsmithing - AAS

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

### Credit Hours Required: 67

**Note:** *Since there is a special admission process for this program, prospective students should contact the Advising Center or visit our website at <https://www.yc.edu/v6/schools/cate/gunsmithing.html> for detailed information.*

### AAS General Education Requirements (19 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### 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 195A - Gunsmithing Practicum **Credits:** 2
- GST 195B - Gunsmithing Practicum **Credits:** 2
- GST 291 - Professional Firearms Engraving **Credits:** 3
- GST 295A - Advanced Gunsmithing Practicum **Credits:** 2
- GST 295B - Advanced Gunsmithing Practicum **Credits:** 2
- 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. (GST 100, 150, 200, 250)
2. Use micrometers, indicators, verniers and various gauges for measuring. (GST 100, 150, 200, 250)
3. Develop ballistic data and document research assignments. (GST 100, 250)
4. Disassemble and prepare firearms for metal finishing and reassemble. (GST 100, 250)
5. Identify, disassemble, and assemble different rifle operating systems. (GST 100, 250)
6. Prepare glass bed, install accessories, apply finish and checker a wood stock. (GST 150, 250)
7. Identify different top break shotgun operating systems. (GST 150, 250)
8. Identify, disassemble, and assemble, different handgun operating systems. (GST 150)
9. Install rifle barrels using proven methods to enhance accuracy. (GST 200, 250)
10. Identify, repair and modify pistols and revolvers. (GST 200, 250)
11. Prepare glass bed, install accessories, apply finish and checker a synthetic stock. (GST 200, 250)
12. Design, set-up, machine and install specialty accessories encountered in the firearms industry. (GST 200, 250)
13. Communicate professionally with customers and vendors. (GST 200, 250)
14. Develop a business plan suitable for a small business loan application. (GST 250)
15. Research and develop an accurate price list for performing technical services. (GST 250)

## Management - AAS

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.*

**∞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.*

### AAS General Education Requirements

- 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).*
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### 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

## 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

### **IMPORTANT:** [Professional Licensure Disclosure](#)

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:** 63

**Note:** *Students completing the Medical Assistant AAS degree or certificate programs are eligible to take the American Medical Technologist (AMT) certification exam to become a Registered Medical Assistant (RMA).*

### **AAS General Education Requirements (19 credits)**

- 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).*
- Mathematics **Credits:** 3
- BIO 181 - General Biology I **Or** BIO 156 - Human Biology for Allied Health (Physical and Biological Sciences) **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### **Program Requirements (44 credits)**

- 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 173 - Legal and Ethical Issues in Healthcare **Credits:** 2
- AHS 230 - Complementary and Integrative Health Therapies **Credits:** 3
- AHS 240 - Human Disease Process **Credits:** 4
- 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

## Program Outcomes

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

1. Utilize medical records while upholding HIPAA regulations. (AHS 100, AHS 105, AHS 120, AHS 121, AHS173, AHS 295)
2. Demonstrate administrative and clinical medical skills. (AHS 105, AHS 120, AHS 121, AHS 140, 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 240, AHS 295, BIO 201, BIO 202, COM 134)
4. Identify how diversity and culture affect delivery of health care. (AHS 100, AHS 120, AHS 121, AHS 230, AHS 295, COM 134)
5. Identify legal and ethical issues in healthcare. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 140, AHS 230, AHS 240, AHS 295, BSA 102)
6. Explain the structure and function of the body systems. (AHS 100, AHS 105, AHS 121, AHS 130, AHS 140, AHS 240, AHS 295, BIO 201, BIO 202)
7. Apply effective communication skills with health care professionals and patients. (AHS 100, AHS 105, AHS 120, AHS 121, AHS 140, AHS 230, AHS 295, BSA 102, COM 134)

## Nursing - AAS

**IMPORTANT:** [Professional Licensure Disclosure](#)

### Application for Admission to the Nursing Program

Special application is required for admission to the nursing program. It is recommended that students work closely with their advisor to ensure all application requirements are fully met. 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.

### 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, perform bending activities and perform fine motor skills with dexterity. The clinical nursing experience 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 AAS in Nursing degree must be completed with a grade of "C" or better. Math and science course work must be completed within the last ten years.

### Licensure

Graduates receiving an Associate of Applied Science (AAS) in Nursing Degree are eligible to apply and take the National Council Licensure Exam (NCLEX) for the Registered Nurse (R.N.). The R.N. has opportunity to be employed in variety of health care settings such as acute, long term care, hospice, and community-based settings. Registered Nurses function within their legal scope of practice as set forth by the State Boards of Nursing and professional standards per the American Nurses Association (ANA). The AAS degree provides the articulation foundation for a Bachelor of Science in Nursing (BSN) degree within the university. The program is fully accredited by the Arizona State Board of Nursing and the Accreditation Commission for Education in Nursing (ACEN).

### Transfer

Students intending to transfer courses toward a Bachelor 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 AZTransfer at [www.aztransfer.com](http://www.aztransfer.com).

**Credit Hours Required:** 68.5

## Pre-Entry Requirements

**Note:** Pre-entry requirements must be complete or in progress in order to apply to the Nursing Program. To prepare to apply to the AAS Nursing Program, it is recommended that students begin in the Associate of Arts (Nursing Intent) degree program and work closely with an academic advisor to ensure timely and on-track progression for application submission.

The 24 credit hour pre-entry block includes Anatomy & Physiology I & II and all of the General Education requirements.

Prior to program application, the applicant must be certified as a CNA, LNA or have completed AHS 114 (or equivalent) within the last three years.

## General Education (16 credits)

- First-Year Composition **Credits:** 6
- MAT 142 - College Mathematics or higher level math (Mathematics) **Credits:** 3
- BIO 181 - General Biology I **OR** BIO 156 - Human Biology for Allied Health (Physical and Biological Science) **Credits:** 4
- PHI 204 - Medical Ethics (Arts and Humanities) OR PSY 101 - Introductory Psychology (Social and Behavioral Science) **Credits:** 3

## Anatomy & Physiology I & II (8 credits)

- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4

## Program Requirements

### **Nursing Core (40.5 credits)**

- NSG 140 - Nursing Theory I **Credits:** 4
- NSG 142 - Application of Nursing Theory I **Credits:** 2
- NSG 143 - Development of Nursing Practice I **Credits:** 2
- NSG 144 - Mental Health Nursing Theory I **Credits:** 1
- NSG 145 - Pharmacology for Nursing I **Credits:** 1
- NSG 150 - Nursing Theory II **Credits:** 5
- NSG 152 - Application of Nursing Theory II **Credits:** 2
- NSG 153 - Development of Nursing Practice II **Credits:** 2
- NSG 155 - Pharmacology for Nursing II **Credits:** 2
- NSG 240 - Nursing Theory III **Credits:** 3
- NSG 242 - Application of Nursing Theory III **Credits:** 3
- NSG 250 - Maternal/Child Nursing Theory **Credits:** 2
- NSG 260 - Mental Health Nursing Theory II **Credits:** 2
- NSG 270 - Nursing Theory IV **Credits:** 3
- NSG 272 - Application of Nursing Theory IV **Credits:** 4.5
- NSG 280 - Professional Nursing Concepts **Credits:** 2

## Co-Requisite (4 credits)

- BIO 205 - Microbiology **Credits:** 4

## Program Outcomes

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

### **1. Patient Centered Care**

Recognize the patient or designee as the source of control and full partner in providing compassionate and coordinated care based on respect for patient's preferences, values and needs.

### **2. Teamwork and Collaboration**

Function effectively within nursing and interprofessional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care.

### **3. Evidence Based Practice**

Integrate best current evidence with clinical expertise and patient/family preferences and values for delivery of optimal healthcare.

### **4. Quality Improvement**

Use data to monitor the outcomes of care processes and use improvement methods to design and test changes to continuously improve the quality and safety of health care systems.


### **5. Safety**

Minimize risk of harm to patients and providers through both system effectiveness and individual performance.

### **6. Informatics**

Use information and technology (IT) to communicate, manage knowledge, mitigate error and support decision-making.

## Paralegal Studies - AAS



**Arizona Legal News**

Arizona has recently created an exciting new tier of legal practitioner that will expand access to representation for people in need of legal assistance.

The new Legal Paraprofessional license is a first-in-the-nation development, and puts Arizona at the forefront of innovations in justice and legal practice.

Click the links below to read more about Legal Paraprofessional requirements, and about how Yavapai College can help you prepare for this exciting new licensure.

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.*

[AZCourts.gov Information](#)  
[Yavapai College - Info Sheet](#)

### AAS General Education Requirements (19 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4  
Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6<sup>1</sup> **Note:** <sup>1</sup> Select from two different prefixes

### 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 Procedure I **Credits:** 3
- LAW 221 - Civil Procedure II **Credits:** 3

### Program Electives

Select 18 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 230 - Administrative Law **Credits:** 3
- LAW 232 - Evidence **Credits:** 3
- LAW 291 - Trial Advocacy **Credits:** 3
- LAW 293 - Legal Paraprofessional **Credits:** 3
- LAW 296 - Internship: Paralegal Studies **Credits:** 3
- LAW 297 - Substantive Law-Related Apprenticeship **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. (CSA 126, LAW102)
5. Identify ethical issues and apply the values of professional responsibility. (LAW100, LAW103)

## Paramedicine - AAS

**IMPORTANT:** [Professional Licensure Disclosure](#)

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 Degree Program. Call 928.717.7926 for details.*

### AAS General Education Requirements (19 credits)

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- Physical and Biological Sciences **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### 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

### IMPORTANT: [Professional Licensure Disclosure](#)

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:** 76

**Note:** *There are special admission requirements for the Radiologic Technology Program. For an application packet and detailed program information, visit [www.yc.edu/radiology](http://www.yc.edu/radiology).*

### Pre-Entry Requirements

**Note:** *Pre-entry requirements must be complete or in progress in order to apply to the Radiologic Technology Program. To prepare to apply for the AAS Program, it is recommended that students begin in the Associate of Arts (Radiologic Tech Intent) degree program and work closely with an academic advisor to ensure timely and on-track progression for application submission.*

The 24 credit hour pre-entry block includes Anatomy & Physiology I & II, Medical Terminology and 13 of the 19 total General Education credit hours required.

### General Education (13 credits)

*These General Education courses must be taken prior to applying to the Radiologic Technology program.*

- First-Year Composition **Credits:** 6
- MAT 152 - College Algebra or equivalent or any math course for which MAT 152 is a prerequisite (Mathematics) **Credits:** 3
- BIO 156 - Human Biology for Allied Health OR BIO 181 - General Biology I (Physical and Biological Science) **Credits:** 4

### Medical Terminology and Anatomy & Physiology I & II (11 credits)

- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- BIO 201 - Human Anatomy and Physiology I **Credits:** 4
- BIO 202 - Human Anatomy and Physiology II **Credits:** 4

### Program Requirements

*Radiologic Technology Core (46 credits)*

- 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

## Co-Requisite General Education (6 credits)

*These two General Education courses are not pre-entry requirements and should be taken along with the Radiology courses (See Suggested Course Sequence).*

- PHI 204 - Medical Ethics (Arts and Humanities) **Credits: 3**
- PSY 245 - Human Growth and Development (Social and Behavioral Science) **Credits: 3**

## 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. (RAD 110, 140)
2. Apply principles of radiation protection for the patient, self, and others. (RAD 220, 260)
3. Identify and perform basic patient care skills and techniques. (RAD 170, 230)

**Goal: Graduate students who communicate effectively.**

4. Practice effective written communication skills. (RAD 160, 180, 200, 240)
5. Employ effective oral communication skills. (RAD 160, 180, 200, 240)
6. Use appropriate interpersonal skills and communication in the clinical setting. (RAD 160, 180, 200, 240)

**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. (RAD 160, 180, 200, 240)
8. Determine exposure factors to achieve optimum radiographic procedures consistent with minimizing dose to patients. (RAD 120, 135, 150)
9. Describe radiographic appearances and risks associated with specific forms of pathology. (RAD 250)

**Goal: Graduate students committed to professional growth.**

10. Practice ethical and professional behaviors in the clinical setting. (RAD 160, 180, 200, 240)
11. Summarize professional obligations as a radiographer. (RAD 100, 240)

## 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:** 63

**Note:** *Students must be 21 years of age or older to pursue the Viticulture and Enology Degree.*

### AAS General Education Requirements

- College Composition or Applied Communication **Credits:** 6
- Mathematics **Credits:** 3
- CHM 130 - Fundamental Chemistry (Physical and Biological Sciences) **Credits:** 4
- Arts and Humanities AND/OR Social and Behavioral Sciences **Credits:** 6 <sup>1</sup>

**Note:** <sup>1</sup> *Select from two different prefixes*

### 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 103 - Maintaining a Vinifera Vineyard **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 and Spring for a total of 4 credits.*
- VEN 195ES - Winemaking Practicum Summer **Credits:** 2
- VEN 195V - Viticulture Practicum **Credits:** 2  
*Note: Students must complete VEN 195V in Fall and Spring for a total of 4 credits.*
- VEN 195VS - Viticulture Practicum Summer **Credits:** 2
- 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 103)
2. Maintain crop health. (AGS 105, AGS 107, AGS 274, VEN 100, VEN 101, VEN 103, VEN 195V)
3. Grow wine grapes. (AGS 107, AGS 274, VEN 100, VEN 101, VEN 103, 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)

## 3-D Modeling and Animation Certificate

The 3-D 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: 6**

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.*

### Program Requirements

- VGD 151 - 3D Modeling and Animation **Credits: 3**
- VGD 251 - Advanced 3D Modeling and Animation **Credits: 3**

### Program Outcomes

*Upon successful completion of the 3-D Modeling and Animation Certificate program, the learner will be able to:*

1. Design 3-D objects and animations for use in video games.
2. Develop Rigged Models with animations for use in video games.

## 3-D Printing and Manufacturing Certificate

The 3-D Printing and Manufacturing Certificate is designed for students, professionals, or those with a personal interest, to enter into the additive manufacturing industry. Through a multifaceted hands-on experience, students will learn the principles, standards, materials and application of additive manufacturing.

**Credit Hours Required:** 19

### Program Requirements

- MET 200 - SolidWorks for Non-Engineers **Credits:** 3
- TDP 101 - Introduction to 3-D Printing **Credits:** 3
- TDP 108 - 3-D Printer Operation and Maintenance **OR** ELT 108 - 3-D Printer Operation and Maintenance **Credits:** 3
- TDP 201 - Slicing and Software for 3-D Printing **Credits:** 3
- TDP 210 - 3-D Model Optimization and Troubleshooting **Credits:** 3
- TDP 250 - Industrial Projects for 3-D Printing **Credits:** 4

### Program Outcomes

*Upon successful completion of the 3-D Printing and Manufacturing Certificate program, the learner will be able to:*

1. Describe key material properties for 3-D printability for each printing technology.
2. Fabricate models using 3-D printers.
3. Illustrate the different extrusion options and utilize geometric relations to display and modify parametric relations.
4. Identify, troubleshoot, and correct errors in the additive manufacturing process.
5. Perform post-processing of manufactured parts and materials.
6. Maintain 3-D printers.

## Accounting Assistant Certificate

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.

**Credit Hours Required:** 36

**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 160 - Computer Accounting with QuickBooks **Credits: 3**
- ACC 162 - Microsoft Excel and Access in Accounting Applications **Credits: 3**
- ACC 233 - Intermediate Accounting I **Credits: 3**
- ACC 234 - Intermediate Accounting II **Credits: 3**
- CSA 126 - Microsoft Office for Windows **Credits: 3**
- MGT 233 - Business Communication **Credits: 3**

### Program Electives

*Select one course from the following options:*

- ACC 296 - Internship: Accounting **Credits: 3**
- BSA 131 - Introduction to Business **Credits: 3**
- BSA 237 - Legal Environment of Business **Credits: 3**
- MGT 132 - Ethics in Business **Credits: 3**

### 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 160, ACC 233)
2. Perform managerial accounting functions using proper format and procedure.(ACC 132)
3. Prepare and interpret financial statements and reports for service, merchandising and manufacturing companies.(ACC 121, ACC 131, ACC 132, ACC 160, ACC 162, ACC 233, ACC 234)
4. Prepare basic tax returns and communicate the effects of tax rules for individuals, partnerships and corporations.(ACC 115)
5. Use current technology and software applications to input, manage, interpret and communicate financial information. (ACC 115, ACC 122, ACC 160, ACC 162, ACC 296, BSA 102, CSA 126, MGT 233)

## Advanced Bookkeeping Certificate

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:** 21

**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 160 - Computer Accounting with QuickBooks **Credits:** 3
- 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 160)
2. Prepare and interpret financial statements and reports for service, merchandising and manufacturing companies. (ACC 121, ACC 131, ACC 160, ACC 162)
3. Prepare basic tax returns and communicate the effects of tax rules for individuals, partnerships and corporations. (ACC 115)
4. Use current technology and software applications to input, manage, interpret and communicate financial information. (ACC 115, ACC 122, ACC 160, ACC 162, CSA 126)

## Advanced Tax - IRS Enrolled Agent Certificate

The Advanced Tax - IRS Enrolled Agent certificate prepares the student to sit for the three IRS Enrolled Agent exams, known as the SEE (Special Enrollment Exams) and secure a position in a tax preparation enterprise where knowledge of taxation and accounting practices is required.

**Credit Hours Required:** 36

### Program Requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 117 - Advanced Tax Planning and Preparation **Credits:** 3
- ACC 121 - Introductory Accounting **Credits:** 3
- ACC 131 - Principles of Accounting I **Credits:** 3
- ACC 132 - Principles of Accounting II **Credits:** 3
- ACC 241 - IRS Enrolled Agent Review Part I **Credits:** 1
- ACC 242 - IRS Enrolled Agent Review Part II **Credits:** 2
- ACC 296 - Internship: Accounting **Credits:** 3
- BSA 131 - Introduction to Business **Credits:** 3
- BSA 237 - Legal Environment of Business **Credits:** 3
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- MGT 132 - Ethics in Business **Credits:** 3
- MGT 233 - Business Communication **Credits:** 3

### Program Outcomes

*Upon successful completion of the Advanced Tax - IRS Enrolled Agent 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 and interpret financial statements and reports for service, merchandising and manufacturing companies. (ACC 121, ACC 131, ACC 132, BSA 131)
3. Prepare complex tax returns and communicate the effects of tax rules for individuals, partnerships and corporations. (ACC 115, ACC 117, ACC 240, ACC 296)
4. Demonstrate professional business communication skills. (MGT 233)
5. Use current technology and software applications to input, manage, interpret and communicate financial information. (ACC 115, ACC 296, CSA 126, MGT 233)
6. Research and recommend resolution of business issues, including ethical implications of alternatives. (ACC 132, BSA 237, MGT 132).
7. Perform the review required to pass the IRS SEE Exams. (ACC 241-242)



## 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

### 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)

## Assisted Living Facility Caregiver Certificate

### **IMPORTANT:** [Professional Licensure Disclosure](#)

The Assisted Living Facility (ALF) Caregiver Certificate program prepares individuals to be caregivers in assisted living homes, facilities, or home health agencies. The program meets the requirements of the Arizona Board of Nursing Care Institution Administrators & Assisted Living Facility Manager (NCIA). Students may complete the ALF Caregiver Certificate program by one of two routes. Option one allows students without a prior background in healthcare to acquire the required knowledge and skills to perform as a caregiver. Option two allows for Certified or Licensed Nursing Assistants to acquire the additional knowledge and skills needed for performance of the caregiver role.

**Credit Hours Required:** 1.5 - 3

### Program Requirements

*Select one of the two following options:*

#### Option 1

- AHS 112 - Assisted Living Facility Caregiver **Credits: 3**  
**Note:** *This option is designed for students without a prior background in healthcare to acquire the required knowledge and skills to perform as a caregiver.*

#### Option 2

- AHS 116 - Certified Nursing Assistant to Caregiver Bridge **Credits: 1.5**  
**Note:** *This option is designed for a Certified or Licensed Nursing Assistant with the state of Arizona who is in "good standing". Admission by application. Requires Dean approval.*

### Program Outcomes

*Upon successful completion of the Assisted Living Facility Caregiver Certificate program, the learner will be able to:*

1. Use caregiver skills to meet a variety of physical, mental, social needs of clients.
2. Apply culturally appropriate communication skills with diverse members of health care team, clients and others.
3. Pass the state administered caregiver examination.

## Athletic Coaching Certificate

The Athletic Coaching Certificate fulfills course work required to obtain the Arizona Department of Education Standard Athletic Coaching Certificate grades 7 - 12. The course work also provides continuing education opportunities for current coaching professionals and are ideal courses for transfer students planning to pursue a bachelor's degree in a similar area of study. The program emphasis is on athlete-centered coaching theories, methods of communication, strategies for motivation, injury prevention and first aid, and anatomy and physiology applied to exercise and sport instruction.

**Credit Hours Required:** 17

### Program Requirements

*Note: The following courses with the EXW prefix were previously listed under PHE.*

- EXW 150 - Essentials of Athletic Injury Management and Prevention **Credits: 3**
- EXW 153 - First Aid/CPR/AED and Safety **Credits: 2**
- EXW 154 - Theory of Coaching **Credits: 3**
- EXW 168 - Sport Psychology and Mental Skills **Credits: 3**
- EXW 251 - Integrated and Applied Exercise Science **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. Describe the benefits of an athlete centered coaching philosophy, including coaching objectives and communication style. (EXW 154, 168; PSY 245)
2. Discuss methods of teaching physical, mental, technical and tactical skills training, including strategies for team management. (EXW 150, 154, 168, 251; PSY 245)
3. Use assertive communication techniques and strategies for motivating various age groups and skill levels. (EXW 154, 168; PSY 245)
4. Apply strategies for injury prevention and recognize exercise and sport related injuries and illnesses. (EXW 150, 153)

## **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

### **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

**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

**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)

## Baking and Pastry Certificate

The Baking and Pastry Certificate provides students with the knowledge and skills needed to enter into the baking and pastry field in entry-level positions.

**Credit Hours Required:** 18

### Program Requirements

- CUL 104 - Culinary Fundamentals: Baking & Pastry **Credits:** 4
- CUL 110 - Cake Decorating Basics **Credits:** 3
- CUL 111 - Food Purchasing and Cost Control **Credits:** 3
- CUL 112 - Plated Desserts **Credits:** 4
- CUL 113 - Pastry Centerpieces and Wedding Cakes **Credits:** 4

### Program Outcomes

*Upon successful completion of the Baking and Pastry Certificate, the learner will be able to:*

1. Prepare a variety of egg and dairy based products, fried baked goods and a variety of pastry products to include but not limited to meringue, fritters, cakes and pies.
2. Demonstrate techniques used in the creative process to design finished display pieces.
3. Demonstrate the use of various chocolates and sugar uses in the decorating process.
4. Demonstrate how to control costs in the food service industry resulting a profitable business.
5. Practice the skills necessary to assist in pastry shops, restaurants, and related departments in the food industry.
6. Obtain ServSafe Certification.

## Basic Carpentry Certificate

Introduction to carpentry safety, hand and power tool operation, blueprint reading, materials, and layout. Hands-on experience in cutting, fastening, footings, framing, assembly, door/window installation, flooring, and finishing.

**Credit Hours Required:** 16

### Program Requirements

- CBT 100 - Basic Carpentry I **Credits:** 8
- CBT 110 - Basic Carpentry II **Credits:** 8

### Program Outcomes

*Upon successful completion of the Basic Carpentry Certificate program, the learner will be able to:*

1. Demonstrate safe operations with construction materials, tools, and equipment. (CBT 100, CBT 110)
  2. Demonstrate trade-appropriate dress and behavior. (CBT 100, CBT 110)
  3. Assemble residential home components, from rough to finish. (CBT 100, CBT 110)
  4. Construct all components of a residential build from rough to finish. (CBT 100, CBT 110)
  5. Install floors, walls, ceilings, doors and windows for a residential build. (CBT 100, CBT 110)
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## 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:** 18

∞**Note:** *This program can be completed entirely online.*

### Program Requirements

- ACC 115 - Basic Tax Planning **Credits:** 3
- ACC 117 - Advanced Tax Planning and Preparation **Credits:** 3
- 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 and interpret financial statements and reports for service and merchandising companies. (ACC 121, ACC 131).
3. Prepare complex tax returns and communicate the effects of tax rules for individuals, partnerships and corporations. (ACC 115, ACC 117, ACC 296)
4. Use current technology and software applications to input, manage, interpret and communicate financial information. (ACC 115, ACC 117, CSA 126, ACC 296)



## Basic Residential Trades Certificate

The Basic Residential Trades certificate prepares students to apply basic skills and knowledge in the core trades of residential carpentry, electrical, and plumbing. Includes NCCER curriculum and instruction in safety, employment, tool usage, measurement, plan reading, codes, supplies, equipment, fixtures, installations, and finishes in these core trades.

**Credit Hours Required:** 24

### Program Requirements

- CBT 100 - Basic Carpentry I **Credits:** 8
- CBT 110 - Basic Carpentry II **Credits:** 8
- CBT 115 - Basic Residential Electrician **Credits:** 3
- CBT 120 - Basic Residential Plumbing **Credits:** 5

### Program Outcomes

1. Demonstrate safe operations with construction materials, tools, and equipment. (CBT 100, CBT 110, CBT 115, CBT 125)
2. Demonstrate trade-appropriate dress and behavior. (CBT 100, CBT 110, CBT 115, CBT 125)
3. Assemble residential home components related to carpentry, electrical, and plumbing, from rough to finish. (CBT 100, CBT 110, CBT 115, CBT 125)
4. Construct all components of a residential build from rough to finish. (CBT 100, CBT 110, CBT 115, CBT 125)
5. Install and finish floors, walls, ceilings, doors and windows for a residential build. (CBT 100, CBT 110)
6. Install electrical and plumbing conduits, wires, and fixtures. (CBT 115, CBT 125)

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## Bookkeeping Certificate

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 YC Admission.*

∞**Note:** *This program can be completed entirely online.*

### 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 and interpret financial statements and reports for service and merchandising companies.(ACC 121)
3. Prepare basic tax returns and communicate the effects of tax rules for individuals, partnerships and corporations. (ACC 115)
4. Use current technology and software applications to input, manage, interpret and communicate financial information. (CSA 126)

## Brewing Technology Certificate

The Brewing Technology Certificate provides students with the knowledge and skills to enter into the brewing industry in entry-level positions. These courses include brewing equipment and maintenance, beer production, styles, and food safety principles.

**Credit Hours Required:** 16

### Program Requirements

- BRW 100 - Beer Production and Styles **Credits:** 1
- BRW 110 - Brewing Equipment and Maintenance **Credits:** 4
- BRW 130 - Beer Production I **Credits:** 3
- BRW 140 - Beer Production II **Credits:** 3
- BRW 192 - Draught Systems **Credits:** 1
- BRW 195 - Brewing Practicum **Credits:** 3
- CUL 100 - Food Safety and Sanitation **Credits:** 1

### Program Outcomes

1. Explain the four-essential brewing raw materials; malt, hops, water, and yeast. (BRW100, BRW 130)
2. Explain the basic technologies and manufacturing processes required to transform the four essential raw materials into forms suitable for brewing. (BRW100, BRW 110, BRW 130, BRW 140, BRW 192, BRW 195, CUL 100)
3. Demonstrate an ability to measure, report, and interpret the basic process analytics required in a brewing context (e.g., brewhouse performance, bitterness, recovery, etc.)
4. (BRW100, BRW 110, BRW 130, BRW 140, BRW 192, BRW 195)
5. Identify the composition and processing regimes required to produce various traditional styles of beers. (BRW100, BRW 130, BRW 140, BRW 195)
6. Explain the unit processes leading from raw materials to packaged beer. (BRW 110, BRW 130, BRW 140, BRW 192, BRW 195, CUL 100)
7. Demonstrate the ability to design and brew a beer that meets generally accepted standards. (BRW 110, BRW 130, BRW 140, BRW 195, CUL 100)

## Business Office - Basic Certificate

The Business Office - Basic Certificate is designed to give students foundational 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 **YC Admission**.*

∞**Note:** *This program can be completed entirely online.*

### Program Requirements

- BSA 102 - Career Search and Success: Skills for Entering and Succeeding in the Workplace **Credits:** 1
- BSA 225 - Administrative Professional: Office Management **Credits:** 3  
**OR** CSA 225 - Administrative Professional: Office Management **Credits:** 3
- CSA 126 - Microsoft Office for Windows **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, BSA 225)
2. Analyze career opportunities for business office positions in all types and sizes of companies. (BSA 102, BSA 225)
3. Use technology to organize information and complete administrative tasks and responsibilities. (BSA 225, CSA 126)
4. Recognize soft skills needed by an employee and/or a member leader of a team to accomplish the goals of the organization. (BSA 102, BSA 225)

## Business Office - Professional Certificate

The Business Office - Professional certificate is designed to prepare students for entry-level 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 electives assist the learner in focusing upon their chosen business or industry while adding needed skills specific to their fields.

**Credit Hours Required:** 25

∞**Note:** *This program can be completed entirely online.*

### 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**  
**OR** CSA 225 - Administrative Professional: Office Management **Credits: 3**
- CSA 126 - Microsoft Office for Windows **Credits: 3**
- ENG 101 - College Composition I **Credits: 3**
- **OR** ENG 136 - Technical Writing **Credits: 3**
- MGT 132 - Ethics in Business **Credits: 3**
- MGT 233 - Business Communication **Credits: 3**

### Program Electives

*Select a minimum of 6 credit hours from the courses listed below:*

- ACC 121 - Introductory Accounting **Credits: 3**
- AHS 130 - Medical Terminology for Patient Care Staff **Credits: 3**
- AHS 173 - Legal and Ethical Issues in Healthcare **Credits: 2**
- CSA 107 - Technology Networking Tools (TNT) **Credits: 1**
- CSA 111 - Keyboarding **Credits: 1**
- LAW 102 - Legal Computer Applications **Credits: 3**
- LAW 107 - Law Office Management **Credits: 3**

### Program Outcomes

Upon successful completion of the Business Office - 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, ENG 101, ENG 136, MGT 233)
2. Analyze career opportunities for business office positions in all types and sizes of companies. (BSA 102, BSA 225)
3. Use technology to organize information and complete administrative tasks and responsibilities. (BSA 130, BSA 225, CSA 126)
4. Recognize soft skills needed by an employee and/or a member leader of a team to accomplish the goals of the organization. (BSA 102, BSA 225, ENG 101, ENG 136, MGT 132)
5. Demonstrate efficient procedures for accomplishing various administrative-related tasks that are appropriate and ethical. (BSA 130, BSA 225, CSA 126, MGT 132)

## 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 with national therapy team organizations.

**Credit Hours Required:** 16

### 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

**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 in diverse environments. (AGC 190, AGC 192, AGC 195)
2. Interpret canine behavior and psychology to apply to training and handling. (AGS 190, AGS 192, AGC195, AGC 215, AGC 225)
3. Describe canine training concepts and skills in working with service and therapy dogs. (AGC 194, AGC 195)
4. Adhere to Service Dog requirements, laws, and ADI Standards. (AGC 194)
5. Identify health-related needs of canines. (AGC 193, AGC 194)
6. Prepare legal documents regarding Service Dogs. (AGC 194)

## 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:** 21

### Program Requirements

- CNT 101 - Networking and Cybersecurity Fundamentals **Credits:** 4
- CNT 110 - A+ Computer Technician Certification **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 190 - Programming and Scripting for Network Admins **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 101)
2. Maintain and repair personal computers. (CNT 110)
3. Describe network protocols and perform basic network device configuration. (CNT 140)
4. Configure Cisco routing, switching, and wireless technologies. (CNT 150)
5. Configure advanced routing and network security. (CNT 160)
6. Write and debug programs and scripts for application in a network environment. (CNT 190)

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## Commercial Driver Training Certificate

**IMPORTANT:** [Professional Licensure Disclosure](#)

Prepares the student to take the Arizona Department of Transportation (ADOT) commercial drivers license (CDL) permit exam, and to complete 30 hours of driver training needed to pass the ADOT CDL Class A, B, or C commercial license road test.

**Credit Hours Required:** 17-18

### Program Requirements

- CDT 250 - Commercial License Prep **Credits:** 1  
**Note:** *If the student has a valid CDL permit this requirement will be waived.*
- CDT 255 - Commercial Behind the Wheel **Credits:** 17

### Program Outcomes

*Upon successful completion of the Commercial Driver Training Certificate program, the learner will be able to:*

1. Prepare for successful completion of ADOT Commercial Class A,B, or C learner permit. (CDT 250)
2. Take ADOT Commercial Class A, B, or C Learner permit. (CDT 250)
3. Explain and show all items on the commercial Pre Trip inspection check list. (CDT 255)
4. Demonstrate competency in ADOT determined road test skills. (CDT 255)

## Computed Tomography Certificate

**IMPORTANT:** [Professional Licensure Disclosure](#)

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.

**Note:** *For an application packet and detailed program information, visit [www.yc.edu/radiology](http://www.yc.edu/radiology).*

**Credit Hours Required:** 6

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.**

### 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 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 the CompTIA A+ Certified IT Technician certification. Successful students will have the skills required to gain employment in entry-level positions in the information technology field.

**Credit Hours Required:** 15

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit **YC Admission**.*

### Program Requirements

- CNT 101 - Networking and Cybersecurity Fundamentals **Credits:** 4
- CNT 110 - A+ Computer Technician Certification **Credits:** 4
- CNT 118 - Operating System Fundamentals **Credits:** 3
- **OR** CNT 120 - Introduction to Windows Server **Credits:** 3
- CNT 140 - Cisco Routing and Switching I **Credits:** 4

### 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. (CNT101)
2. Maintain and repair personal computers. (CNT110)
3. Perform administrative and troubleshooting tasks on operating systems. (CNT118 or CNT120)
4. Describe network protocols and perform basic network device configuration. (CNT140)



## 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

### 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)

## Computer Programming Certificate

The Computer Programming Certificate prepares students for employment in entry-level programming fields. Students will experiment and learn a variety of programming languages. Hands-on computer experience is emphasized throughout the program.

**Credit Hours Required:** 21

### Program Requirements

- CSA 282 - Database Concepts **Credits:** 3
- CSC 105 - Introduction to Programming **Credits:** 3
- 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

### Program Outcomes

*Upon successful completion of the Programming Certificate program, the learner will be able to:*

1. Apply problem solving skills and the knowledge of computer science in the construction of software systems. (CSC 105, CSC113, CSA282, CSC 125, CSC 205, CSC 211, CSC 220)
2. Demonstrate effective use of computer programming concepts to code a collection of instructions that perform a specific task. (CSC 105, CSC113, CSC 125, CSC 205, CSC 211, CSC 220)
3. Communicate ideas in a collaborative environment during all stages of software development. (CSC 105, CSC113, CSA282, CSC 125, CSC 205, CSC 211, CSC 220)

## Criminal Justice and Security Certificate

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

∞**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

### 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:** 23

### Program Requirements

- CNT 101 - Networking and Cybersecurity Fundamentals **Credits: 4**
- CNT 105 - Cybersecurity Principles **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 190 - Programming and Scripting for Network Admins **Credits: 3**
- CNT 250 - Securing Network Devices **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 medium to large sized computer network. (CNT 101)
2. Describe the terms and technologies that comprise the field of cybersecurity, and implement strategies for managing an information security program. (CNT 105)
3. Configure and implement network security. (CNT 135)
4. Describe network protocols and perform basic network device configuration. (CNT 140)
5. Configure Cisco routing, switching, and wireless technologies. (CNT 150)
6. Write and debug scripts for application in a network administration environment. (CNT 190)
7. Install, troubleshoot, and monitor a secure network to maintain integrity, confidentiality, and availability of data and devices. (CNT250)

## Cybersecurity Technician Certificate

This certificate is designed to provide students with the skills required to install, configure, and secure a small to medium-sized network. Emphasis is on cybersecurity technologies and implementation. Students are prepared for the CompTIA Security+ certification. Successful students will have the skills required to gain employment in entry-level positions in the information technology field specializing in cybersecurity.

**Credit Hours Required:** 14

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit **YC Admission**.*

### Program Requirements

- CNT 101 - Networking and Cybersecurity Fundamentals **Credits:** 4
- CNT 105 - Cybersecurity Principles **Credits:** 3
- CNT 110 - A+ Computer Technician Certification **Credits:** 4
- CNT 135 - Security+: Implementing and Maintaining Network Security **Credits:** 3

### Program Outcomes

*Upon successful completion of the Cybersecurity 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. (CNT 101)
2. Describe the terms and technologies that comprise the field of cybersecurity, and implement strategies for managing an information security program. (CNT 105)
3. Maintain and repair personal computers. (CNT 110)
4. Configure and implement network security. (CNT 135)

## Diesel Technician Certificate

The Diesel Technician certificate is designed to prepare students for entry-level positions in heavy diesel mechanics.

**Credit Hours Required:** 30

### 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.

**Credits Hours Required:** 30

**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
- 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 - Child Guidance **Credits: 3**  
**OR** PSY 260 Child Guidance
- ECE 270 - Health, Safety and Nutrition **Credits: 3**
- ECE 280 - Observation and Assessment of the Young Child **Credits: 3**

### 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 280)
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 280)
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 280)
8. Implement basic health, safety, and nutritional practices with young children as required by regulation. (ECE 270, ECE 280)



## 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:** 12-15

**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 YC Admission.**

### 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 - Child Guidance **Credits: 3**  
**OR** PSY 260 - Child Guidance **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 Lineworker Certificate

The certificate in Electric Utility Lineworker is designed to prepare the student for a position as a pre-apprentice level lineworker 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:** 33.5 - 35.5

### 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**
- EMS 120 - Basic First Aid, CPR and AED **Credits: .5**
- MAT 100 - Technical Mathematics **Credits: 3**
- PPT 120 - Energy Industry Fundamentals **Credits: 3**

### Optional Course for those who hold a Commercial Class A or B permit or license:

- CDT 200 - Commercial Driver Refresher/Extender **Credits: 2**

### Program Outcomes

*Upon successful completion of the Electric Utility Lineworker Certificate program, the learner will be able to:*

1. Demonstrate basic AC and DC electrical principles. (ELT 101, MAT 100)
2. Demonstrate linework equipment, tools, techniques, and safety practices. (ELT 141, ELT 202, ELT 211, ELT 212, EMS 120, 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 employment. (CPD 104, PPT 120)

## 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.

**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.*

**Credits Hours Required:** 27

### Program Requirements

- AGS 101 - Microcomputers in Agriculture **Credits: 3**  
**OR** CSA 126 Microsoft Office for Windows
- 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**
- 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)
2. Troubleshoot digital, microprocessor and programmable controller-based circuits. (ELT 162, ELT 165, ELT 183)
3. Troubleshoot solid state circuits. (ELT 126) Troubleshoot process control instrumentation and motor control circuits. (ELT 171, ELT 272)
4. Troubleshoot pneumatic and hydraulic systems. (MET 160)
5. 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:** 19

### 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 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 - Advanced Certificate 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 183)
3. Troubleshoot solid-state circuits. (ELT 126)
4. Troubleshoot communication circuits. (ELT 221)
5. 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 YC Admission.**

### 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)

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## 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: 5**

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.**

### 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 YC Admission.*

### 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

### 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

**IMPORTANT:** [Professional Licensure Disclosure](#)

The Emergency Medical Technician certificate 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.

**Credit Hours Required:** 10

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit **YC Admission**.*

### 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

### 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 and Spring for a total of 4 credits.*
- VEN 195ES - Winemaking Practicum Summer **Credits:** 2
- 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

### 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 **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 231, AGS 102, AGS 215)
2. Identify external parts of a horse and apply that knowledge to everyday functions of the horse. (AGE 100, AGE 101, AGE 120, AGE 122, AGE 125, AGE 140, AGE 201, AGE 231, AGE 260)
3. Explain equine social needs and behavior, and how to take these into consideration in management and training. (AGE 100, AGE 101, AGE 120, AGE 125, AGE 201, AGE 231, AGE 260)
4. Identify and apply overall health and nutrition needs for the newborn to senior equine. (AGE 100, AGE 120, AGE 122, AGE 125, AGE 140, AGE 231)
5. Compare and apply popular training techniques from ground work to under saddle/harness. (AGE 100, AGE 101, AGE 125, AGE 201, AGE 260)
6. Identify and correct behavioral problems in relation to riding and training. (AGE 100, AGE 101, AGE 125, AGE 201, AGE 260)
7. Practice basic riding techniques and tacking. (AGE 100, AGE 101, AGE 125, AGE 201, AGE 231)
8. Identify and apply barn management skills, including cleaning, horse care, and supply management. (AGE 100, AGE 101, AGE 120, AGE 122, AGE 125, AGE 140, AGE 201, AGE 231, AGS 215)

## Media Production Certificate

The Media 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:** 36

### Program Requirements

- FMA 100 - Animation Principles **Credits: 3**  
**OR** FMA 113 - Stop Motion Animation
- FMA 102 - Production I **Credits: 3**
- FMA 103 - Screenwriting I **Credits: 3**
- FMA 105 - Production II **Credits: 3**
- FMA 107 - Post-Production **Credits: 3**
- FMA 110 - Pre-Production **Credits: 3**
- FMA 116 - The Business of Content Creation **Credits: 3**
- FMA 117 - Cinematography **Credits: 3**
- FMA 134 - Immersive Transmedia Storytelling **Credits: 3**
- FMA 138 - Motion Graphics **Credits: 3**
- FMA 139 - Fundamentals of Video Editing **Credits: 3**
- THR 161 - Sound Design for Stage and Media **Credits: 3**

### Program Outcomes

*Upon successful completion of the Film and Media Production Certificate program, the learner will be able to:*

1. Exhibit a working knowledge of filmmaking equipment. (FMA 100, 102, 105, 107, 113, 117, 138, 139, THR 161)
2. Produce content with motion graphics and animation. (FMA 100, 105, 107, 113, 138)
3. Write, produce, and edit a short media production. (FMA 102, 103, 105, 107, 110, 117, 134, 138)
4. Utilize team building techniques. (FMA 100, 102, 105, 107, 113, 116, 117, 138, 139, THR 161)
5. Exhibit a working knowledge of the business of content creation. (FMA 110, 116, 134)

## 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**

### 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

### 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. Discuss the legal issues and concerns affecting emergency services. (FSC225)
4. Explain the basic elements of fire dynamics, construction, and fire protection systems as to how they affect origin and cause determination. (FSC234)
5. 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. 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

### Program Requirements

- FSC 137 - Fire Protection Hydraulics and Water Supply **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 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. (FSC 137)
2. Operate and test fire protection and detection systems. (FSC 235)
3. Prescribe safety procedures for personnel operating in the fire ground. (FSC 236)
4. Direct firefighting operations to achieve life safety, property conservation, and environmental protection. (FSC 238)
5. Lead 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

### Program 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. Discuss the legal issues and concerns affecting emergency services. (FSC 225)
2. Prescribe safety procedures for personnel operating in the fire ground. (FSC 236)
3. Use basic terms and concepts associated with the chemistry and dynamics of fire. (FSC 210)
4. Direct firefighting operations to achieve life safety, property conservation, and environmental protection. (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:** 16

∞**Note:** *This program can be completed entirely online.*

### Program Requirements

*Note: The following courses with the EXW prefix were previously listed under PHE.*

- EXW 100M - Foundations of Mind-Body Exercise **Credits:** 1
- EXW 130H - Weight Management **Credits:** 3
- EXW 152 - Personal Health and Wellness **Credits:** 3
- EXW 157 - Performance Nutrition **Credits:** 3
- EXW 251 - Integrated and Applied Exercise Science **Credits:** 3
- EXW 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 F.I.T.T.E. and strength training principles to develop and evaluate the effectiveness of programs for individuals and/or groups that will enhance the five components of fitness. (EXW152, EXW157, EXW251, EXW252)
2. Explain the acute and chronic effects and adaptations of exercise on the cardiovascular and musculoskeletal system. (EXW157, EXW251, EXW252)
3. Describe how behavior modification strategies apply to the relationship between diet and exercise within the scope of practice of a personal trainer. (EXW130H, EXW152, EXW157, EXW251, EXW252)
4. Explain medical procedures as they relate to exercise. (EXW 252)
5. Integrate mind-body components into the design of personal training sessions. (EXW100M, EXW252)

## 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:** 26

### Program Requirements

- ART 110 - Drawing I **Credits:** 3
- ART 112 - Two-Dimensional Design **Credits:** 3
- ART 130 - Web Site Design **Credits:** 3
- ART 131 - Graphic Design I **Credits:** 4
- ART 132 - Graphic Design II **Credits:** 4
- ART 137 - Adobe Photoshop I **Credits:** 3
- ART 231 - Digital 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. Work independently or as part of a team to successfully complete graphic design projects. (ART 130, 131, 132, 231, 236)
2. Develop creative solutions to visual problems. (ART 110, 112, 130, 131, 132, 137, 231, 236)
3. Utilize typography in design solutions. (ART 112, 131)
4. Employ industry standard software. (ART 112, 130, 131, 132, 137, 231, 236)
5. Identify, analyze, synthesize and communicate design principles. (ART 110, 112, 130, 131, 132, 137, 231, 236)
6. Articulate traditional and nontraditional art examples and how those examples affect popular visual literacy. (ART 110, 112, 130, 131, 132, 137, 231, 236)



## 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

**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, GST 280)
3. Build competition firearms that perform at or above accepted levels. (GST 270, GST 280)
4. Program and operate CNC machinery. (CNC 101, CNC 102)
5. Operate CAM programs relevant to the firearms industry. (CNC 201, CNC 202)

## Gunsmithing Certificate

The Gunsmithing certificate prepares the student for direct employment as a gunsmith in an established shop.

**Credits Hours Required:** 48

**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 195A - Gunsmithing Practicum **Credits:** 2
- GST 195B - Gunsmithing Practicum **Credits:** 2
- GST 291 - Professional Firearms Engraving **Credits:** 3
- GST 295A - Advanced Gunsmithing Practicum **Credits:** 2
- GST 295B - Advanced Gunsmithing Practicum **Credits:** 2
- 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. (GST 100, 150, 200, 250)
2. Use micrometers, indicators, verniers and various gauges for measuring. (GST 100, 150, 200, 250)
3. Develop ballistic data and document research assignments. (GST 100, 250)
4. Disassemble and prepare firearms for metal finishing and reassemble. (GST 100, 250)
5. Identify, disassemble, and assemble different rifle operating systems. (GST 100, 250)
6. Prepare glass bed, install accessories, apply finish and checker a wood stock. (GST 150, 250)
7. Identify different top break shotgun operating systems. (GST 150, 250)
8. Identify, disassemble, and assemble, different handgun operating systems. (GST 150)
9. Install rifle barrels using proven methods to enhance accuracy. (GST 200, 250)
10. Identify, repair and modify pistols and revolvers. (GST 200, 250)
11. Prepare glass bed, install accessories, apply finish and checker a synthetic stock. (GST 200, 250)
12. Design, set-up, machine and install specialty accessories encountered in the firearms industry. (GST 200, 250)
13. Communicate professionally with customers and vendors. (GST 200, 250)
14. Develop a business plan suitable for a small business loan application. (GST 250)
15. Research and develop an accurate price list for performing technical services. (GST 250)

## **HVAC Service Technician Certificate**

The HVAC Service Technician Certificate provides students with the knowledge and skills needed to enter into the HVAC/Refrigeration industry in entry-level positions.

**Credit Hours Required:** 24

### **Program Requirements**

- ELT 111 - DC Electrical Systems **Credits:** 3
- ELT 112 - AC Electrical Systems **Credits:** 3
- HVA 100 - Introduction to HVAC I **Credits:** 3
- HVA 110 - Introduction to HVAC II **Credits:** 3
- HVA 215 - Refrigerant Technology I **Credits:** 3
- HVA 220 - HVAC Circuits and Motors **Credits:** 3
- HVA 225 - Heating Technologies I **Credits:** 3
- HVA 230 - HVAC Troubleshooting **Credits:** 3

### **Program Outcomes**

*Upon successful completion of the HVAC Service Technician Certificate program, the learner will be able to:*

1. Identify HVAC and Refrigeration equipment and system components, their functions, and their relationship within a system.
2. Describe the fundamentals of electricity and explain its application in HVAC/Refrigeration equipment.
3. Develop and apply competent wiring skills.
4. Troubleshoot, diagnose service systems and perform service tasks.

## 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

### 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

### **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

### **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

### 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

### 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

**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

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

**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

**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

**IMPORTANT:** [Professional Licensure Disclosure](#)

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.

**Note:** *For an application packet and detailed program information, visit [www.yc.edu/radiology](http://www.yc.edu/radiology).*

**Credit Hours Required:** 6

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.**

### 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 contrasts 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

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

∞**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)

## Management - Entrepreneurship Principles and Practice Certificate

The Management - Entrepreneurship Principles and Practice Certificate prepares students to embark on the journey of owning a business, and the knowledge and skills needed for launching and growing the new venture.

**Credit Hours Required:** 22-25

### Program Requirements

- MGT 183 - Managing Business Finances **Credits:** 3
- MGT 185 - Finding your Mentor **Credits:** 1
- MGT 188 - Competitor Differentiation **Credits:** 3
- MGT 280 - Marketing Tactics and Techniques **Credits:** 3
- MGT 281 - High Performance Management **Credits:** 3
- MGT 283 - Operations Management **Credits:** 3
- MGT 285 - Growing your Business **Credits:** 3
- MGT 288 - Business Plan Development **Credits:** 3

### Optional Course

- MGT 180 - Business Software and Communications **Credits:** 3

### Program Outcomes

*Upon successful completion of the Entrepreneurship Principles and Practice Certificate, the learner will be able to:*

1. Identify requirements for planning, developing, and launching a small business. (MGT 183, MGT 185, MGT 188, MGT 280, MGT 283, MGT 285, MGT 288)
2. Identify how different functional areas of an organization work together. (MGT 180, MGT 183, MGT 280, MGT 281, MGT 283, MGT 285, MGT 288)
3. Describe the process for analyzing and marketing a business opportunity. (MGT 180, MGT 183, MGT 188, MGT 280, MGT 288)
4. Develop a comprehensive Business Plan. (MGT 180, MGT 183, MGT 185, MGT 188, MGT 280, MGT 281, MGT 283, MGT 285, MGT 288)
5. Demonstrate understanding of essential workplace skills. (MGT 180, MGT 183, MGT 185, MGT 188, MGT 280, MGT 281, MGT 283, MGT 285, MGT 288)
6. Develop relationships with professional mentors. (MGT 180, MGT 185)

## Management - Strategic Leadership Certificate

The Management - Strategic Leadership Certificate prepares students for leadership positions within businesses of all sizes. This certificate program will provide students with knowledge and skills needed in entry- and mid-level positions. Coursework covers team dynamics, critical thinking, organizational motivation, strategic and transfer leadership, conflict resolution and ethics.

### **Credit Hours Required: 9**

*This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.*

### **Program Requirements**

- MGT 201 - Leadership Essentials **Credits: 3**
- MGT 202 - Strategic Leadership **Credits: 3**
- MGT 203 - Organizational Leadership **Credits: 3**

### **Program Outcomes**

*Upon successful completion of the Strategic Leadership Certificate program, the learner will be able to:*

1. Apply practical problem solving to achieve the best organizational outcomes.
2. Utilize tools of leadership related to strategic decision-making.
3. Lead and manage diverse human capital.
4. Communicate in a professional manner using different communication channels and styles.

## Medical Assistant Certificate

**IMPORTANT:** [Professional Licensure Disclosure](#)

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:** 33-44

**Note:** *Students completing the Medical Assistant AAS degree or certificate programs are eligible to take the American Medical Technologist (AMT) certification exam to become a Registered Medical Assistant (RMA).*

### 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 173 - Legal and Ethical Issues in Healthcare **Credits:** 2
- AHS 240 - Human Disease Process **Credits:** 4
- 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
- MAT 100 - Technical Mathematics **Credits:** 3 <sup>\*Recommended</sup>

**OR** Choose from Mathematics

**OR** Satisfactory score on skills assessment

**AND choose one Biology option below:**

#### **Option 1**

- BIO 160 - Intro 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 173, AHS 295)
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 240, AHS 295, BIO 160, BIO 201, BIO 202)
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, AHS 240, BIO 160, BIO 201, BIO 202)
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 240, AHS 295)
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 173, AHS 295)
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:** 18-29

### Program Requirements

- AHS 100 - Fundamentals of Health Care **Credits:** 3
- AHS 120 - Foundations of Medical Assisting I **Credits:** 3
- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- AHS 173 - Legal and Ethical Issues in Healthcare **Credits:** 2
- CSA 126 - Microsoft Office for Windows **Credits:** 3
- MAT 100 - Technical Mathematics **Credits:** 3 <sup>\*Recommended</sup>  
**OR** Choose from Mathematics  
**OR** Satisfactory score on skills assessment

**AND choose one Biology option below:**

#### *Option 1*

- AHS 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 156 - Human Biology for Allied Health **Credits:** 4  
**OR** BIO 181 - General Biology I
- 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. Utilize medical records while upholding HIPAA regulations.
2. Demonstrate administrative and clinical skills.
3. Assist the health care provider in delivering care to clients with multiple health care needs.
4. Identify how diversity and culture affect delivery of health care.
5. Identify legal and ethical issues in healthcare.
6. Explain the structure and function of the body systems.
7. Apply therapeutic communication skills with health care professionals and patients.

## 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

### Program Requirements

- AHS 130 - Medical Terminology for Patient Care Staff **Credits:** 3
- AHS 173 - Legal and Ethical Issues in Healthcare **Credits:** 2
- 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

**Complete Option 1 or 2:**

#### *Option 1*

- BIO 160 - Intro 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)

## Microsoft Office Specialist Certificate

The Microsoft Office Specialist certificate prepares students for productive work in an office setting, utilizing Microsoft Office software such as Microsoft Word (word processing), Excel (spreadsheets), PowerPoint (presentations), Access (database) and Outlook (personal information manager). Upon completion the student should be ready to attempt the Microsoft Office certification tests, which are highly regarded by employers in the business community.

**Credit Hours Required:** 11

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.**

*Note: This program can be completed entirely online.*

### Program Requirements

- CSA 125 - Microsoft Outlook **Credits:** 1
- 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 172 - Microsoft Windows **Credits:** 2

### Program Outcomes

*Upon successful completion of the Microsoft Office Specialist Certificate, the learner will be able to:*

1. Accomplish a variety of office tasks using current software programs.
2. Demonstrate advanced software application skills
3. Prepare for the Microsoft Office Specialist Certificate (MOS) Exams.

## Nursing Assistant Certificate

**IMPORTANT:** [Professional Licensure Disclosure](#)

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 that must be completed before receiving Dean Approval to register for the course.

**Prerequisites:** MAT 082 or Satisfactory score on the Mathematics Skills Assessment and Reading Proficiency or proof of successful completion of 12 college credits.

**Requirements:** Complete an Allied Health Nursing Assistant application; AZ Driver's License; YC Student ID/email; DPS Fingerprint Clearance Card; Basic Life Support for Healthcare Providers Certificate (online CPR classes not accepted); TWO, 2-step TB tests; Seasonal Flu; Tetanus/Diphtheria/Pertussis (Tdap); multiple doses of MMR, Varicella, and Hepatitis B Vaccinations. Must be at least 16 years old.

Call 928.771.6126 for details and visit <http://www.yc.edu/alliedhealth> to complete the application.

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.**

### 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



**Arizona Legal News**

Arizona has recently created an exciting new tier of legal practitioner that will expand access to representation for people in need of legal assistance.

The new Legal Paraprofessional license is a first-in-the-nation development, and puts Arizona at the forefront of innovations in justice and legal practice.

Click the links below to read more about Legal Paraprofessional requirements, and about how Yavapai College can help you prepare for this exciting new licensure.

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**

∞**Note:** *This program can be completed entirely online.*

[AZCourts.gov](http://AZCourts.gov) Information  
[Yavapai College - Info Sheet](#)

### 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 Procedure I **Credits: 3**
- LAW 221 - Civil Procedure 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 230 - Administrative Law **Credits: 3**
- LAW 232 - Evidence **Credits: 3**
- LAW 291 - Trial Advocacy **Credits: 3**
- LAW 293 - Legal Paraprofessional **Credits: 3**
- LAW 296 - Internship: Paralegal Studies **Credits: 3**
- LAW 297 - Substantive Law-Related Apprenticeship **Credits: 3**
- LAW 298 - Special Legal Topics **Credits: 3**

## Program Outcomes

*Upon successful completion of the Paralegal Studies 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

**IMPORTANT:** [Professional Licensure Disclosure](#)

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, interosseus, and central intravenous techniques, defibrillation, synchronized cardioversion, transcutaneous pacing; and preparing for transportation.

**Credit Hours Required:** 43

**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)

## Phlebotomy Technician Certificate

**IMPORTANT:** [Professional Licensure Disclosure](#)

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 YC Admission.*

### 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 demonstrate basic phlebotomy skills in a working environment. (AHS 100, AHS 105, AHS 296)
2. Manage medical records upholding security and privacy standards as outlined in HIPAA regulations. (AHS 100, AHS 105, AHS 296)
3. Explain the structure and function of the body systems. (AHS 100, AHS 105, AHS 296)
4. Identify legal and ethical issues in healthcare. (AHS 100, AHS 105, AHS 296)
5. Apply effective communication skills with healthcare professionals and patients. (AHS 100, AHS 105, AHS 296)



## Plumbing Technician Certificate

The Plumbing Technician Certificate is designed to provide the essential skills required of an entry-level employee in the residential plumbing industry. Training in various aspects of the construction and plumbing industry include: hand and power tool operation, blueprints, materials, and layouts. Students will learn to install and repair residential plumbing systems which include new construction, renovations, wells, and septic systems. Program will also address plumbing system design, calculations, safety, testing, and applicable codes and standards.

**Credit Hours Required:** 16

### Program Requirements

- CBT 100 - Basic Carpentry I **Credits:** 8
- CBT 112 - Plumbing Codes & Standards, Blueprint, and Design **Credits:** 2
- CBT 120 - Basic Residential Plumbing **Credits:** 5
- CBT 212 - Drain, Waste, and Vent Systems **Credits:** 1

### Program Outcomes

*Upon successful completion of the Plumbing Technician Certificate program, the learner will be able to:*

1. Perform soil, top-out, trim installation, and inspection of residential plumbing systems.
2. Interpret and explain basic plumbing regulations, codes, and standards.
3. Explain and install drain-waste-vent systems.
4. Prepare, calculate, and interpret residential plumbing designs and blueprints.
5. Identify the different piping and fittings used in the plumbing industry.

## 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

### 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)

## Residential Electrical Technician Certificate

The Residential Electrical Technician Certificate provides students with the knowledge and skills needed to enter into the electrical industry in entry level positions. The courses include electrical industry standards, residential drawings, National Electrical Code and installing an electrical system in a residential dwelling.

**Credit Hours Required:** 19

### Program Requirements

- CBT 100 - Basic Carpentry I **Credits:** 8
- CBT 115 - Basic Residential Electrician **Credits:** 3
- ELT 101 - Basic Electricity **Credits:** 4
- ELT 115 - Conduits and Raceways **Credits:** 1
- ELT 220 - National Electrical Codes **Credits:** 3

### Program Outcomes

*Upon successful completion of the Residential Electrical Technician Certificate program, the learner will be able to:*

1. Practice safe residential electrical industry standards.
2. Install complete electrical system for a residential home.
3. Diagnose and repair electrical problems occurring in a residential home.
4. Interpret residential drawings and blueprints.
5. Apply National Electrical Code (NEC) requirements to electrical installations and repairs.

## Technical Theater in Stagecraft Certificate

The Technical Theater in Stagecraft Certificate is designed to prepare students for a wide range of careers within theatrical operations and production. This hands-on experience working on theatrical productions and events in the performing arts and entertainment industry includes a wide variety of specializations in audio, lighting, set and props design and construction, costuming, hair and wigs, and make-up design.

**Credit Hours Required:** 16

### Program Requirements

- THR 147 - Production Workshop Practicum: Theater Production Crew **Credits:** 1
- THR 160 - Lighting for Stage and Media **Credits:** 3
- THR 161 - Sound Design for Stage and Media **Credits:** 3
- THR 162 - Stagecraft Rigging and Safety **Credits:** 3
- THR 163 - Costuming, Hair, and Make-Up **Credits:** 3
- THR 164 - Theater Set and Props Building **Credits:** 3

### Program Outcomes

*Upon successful completion of the Technical Theater in Stagecraft Certificate program, the learner will be able to:*

1. Demonstrate a general understanding of design and implementation for theatrical arts production areas including scenery, lighting, sound, costumes, and properties.
2. Perform safe construction and installation techniques for technical theater disciplines.
3. Apply professional behavior as part of a team implementing technical theater elements for a production.

## Writing for the Screen Certificate

The Writing for the Screen Certificate focuses on storytelling across media, including podcasting, marketing/sales, social media, video games, VR, citizen journalism, education, YouTube, client based content, film and television.

**Credits Hours required:** 24

∞**Note:** *This program can be completed entirely online.*

*This certificate is not currently eligible for Federal Financial Aid. To explore other financial aid opportunities, please contact YC Admission.*

### Program Requirements

- FMA 103 - Screenwriting I **Credits:** 3
- FMA 104 - Podcasting **Credits:** 3
- FMA 121 - Screenwriting II **Credits:** 3
- FMA 131 - Characters, Conflicts and Story **Credits:** 3
- FMA 132 - Citizen Journalism **Credits:** 3
- FMA 133 - Introduction to Media and Cinema **Credits:** 3
- FMA 134 - Immersive Transmedia Storytelling **Credits:** 3
- FMA 135 - Writing for Games and Virtual Reality **Credits:** 3

### Program Outcomes

*Upon successful completion of the Writing for the Screen Certificate, the learner will be able to:*

1. Exhibit a working knowledge of storytelling across mediums.
2. Apply key points of storytelling in cinema to content creation.
3. Create a podcast using journalism principles.
4. Create a screenplay using three act structure with solid characters, conflicts and story.

## Service Dog Certificate

The Service Dog Program offers 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 designated recipient. It includes extensive public access skills so dogs are able to handle the stress of public environments while still performing needed tasks. 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

### 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 215 - Service Dog Public Access and Task Training I **Credits: 4**
- AGC 225 - Service Dog Public Access & Task Training II **Credits: 4**

### Program Outcomes

*Upon successful completion of the Service Dog Certificate program, the learner will be able to:*

1. Apply positive canine training and handling skills in diverse environments. (AGC 190, AGC 192, AGC 195, AGC 215, AGC 225)
2. Interpret canine behavior and psychology to apply to training and handling. (AGC 190, AGC 192, AGC 195, AGC 215, AGC 225)
3. Exhibit the training of Service Dog tasks in classroom and public environments. (AGC 215, AGC 225)
4. Describe issues of handling a service dog to the general public. (AGC 194, AGC 195, AGC 197, AGC 215, AGC 225)
5. Adhere to Service Dog requirements, laws and ADI Standards. (AGC 194, AGC 197, AGC 195, AGC 215, AGC 225)
6. Identify health-related needs of canines. (AGC 193, AGC 194, AGC 215, AGC 225)
7. Explain Service Dog boarding requirements. (AGC 194, AGC 215, AGC 225)
8. Prepare Service Dog legal documents. (AGC 194, AGC 197, AGC 215, AGC 225)

## 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 a third party provider or the Yavapai College Service Dog Certificate. 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 third party evaluators from three national therapy dog organizations.

**Credit Hours Required: 8**

**This certificate is not eligible for Federal Financial Aid. To explore other financial aid opportunities, please visit YC Admission.**

### 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 in diverse environments. (AGC 190, AGC 192, AGC 195)
2. Interpret canine behavior and psychology to apply to training and handling. (AGC 190, AGC 192, AGC 195)
3. Describe canine training concepts and skills in working with service and therapy dogs. (AGC 194, AGC 195)
4. Apply communication skills with the general public. (AGC 195)

## Unmanned Aircraft Systems Certificate

The Unmanned Aircraft Systems Certificate prepares students to become professional unmanned aircraft operators.

**Credit Hours Required:** 27

### Program Requirements

- 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 Unmanned Aircraft Systems Certificate program, the learner will be able to:*

1. Describe current UAS capabilities and applications.
2. Describe UAS regulations.
3. Describe basic UAS telemetry and ground station components and functions; install telemetry system on UAS; perform range test.
4. Interpret aerial imagery from nadir and oblique angles.
5. Use critical analysis to accurately select the appropriate sensor, lens, and aircraft for a given mission.
6. Assemble data into a meaningful format to present to industry professionals.
7. Safely fly a drone using approved practices.



## Video Game Developer Certificate

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:** 18

**Note:** *This program can be completed entirely online.*

### Program Requirements

- CSC 105 - Introduction to Programming **Credits:** 3
- CSC 125 - Programming: C# Fundamentals **Credits:** 3
- VGD 121 - Video Game Development for Game Engines **Credits:** 3
- VGD 151 - 3D Modeling and Animation **Credits:** 3
- VGD 171 - Video Game Development - Programming **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.
2. Design 3D objects and animations for use in video games.
3. Write error free programming for use in video games.
4. Identify game design theory and principles.
5. Develop Rigged Models with animations for use in video games.

## Viticulture Advanced Certificate

The Viticulture Advanced Certificate is designed to prepare individuals for various careers in the grape growing industry. Classroom instruction, laboratory and in-depth field applications of viticultural principles and practices are included in the program of study. Learning outcomes are applied in a 12-acre on-campus teaching vineyard.

**Credit Hours Required:** 25

### 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 103 - Maintaining a Vinifera Vineyard **Credits:** 4
- VEN 195V - Viticulture Practicum **Credits:** 2  
**Note:** *Students must complete VEN 195V in Fall and Spring for a total of 4 credits.*
- VEN 195VS - Viticulture Practicum Summer **Credits:** 2

### Program Outcomes

*Upon successful completion of the Viticulture Advanced 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 103)
2. Maintain crop health. (AGS 105, AGS 107, AGS 274, VEN 100, VEN 101, VEN 103, VEN 195V)
3. Grow wine grapes. (AGS 107, AGS 274, VEN 100, VEN 101, VEN 103, VEN 195V)

## **Viticulture Fundamentals Certificate**

The Viticulture Fundamentals 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:** 16

### **Program Requirements**

- AGS 105 - Soils **Credits:** 3
- AGS 274 - Water Management **Credits:** 3
- VEN 100 - Introduction to Viticulture **Credits:** 3
- VEN 101 - Establishing a Vinifera Vineyard **Credits:** 3
- VEN 103 - Maintaining a Vinifera Vineyard **Credits:** 4

### **Program Outcomes**

*Upon successful completion of the Viticulture Fundamentals 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 103)
  2. Maintain crop health. (AGS 105, AGS 274, VEN 100, VEN 101, VEN 103)
  3. Grow wine grapes. (AGS 105, AGS 274, VEN 100, VEN 101, VEN 103)
- 

## **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

### **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

### **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)

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## **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

### **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

### **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.

**Credit Hours Required:** 19

### Program Requirements

- CNT 101 - Networking and Cybersecurity Fundamentals **Credits:** 4
- CNT 118 - Operating System Fundamentals **Credits:** 3
- **OR** CNT 120 - Introduction to Windows Server **Credits:** 3
- CNT 119 - Windows Server I **Credits:** 3
- CNT 190 - Programming and Scripting for Network Admins **Credits:** 3
- CNT 219 - 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 medium to large sized computer network. (CNT 101 or CNT 115)
2. Perform administrative and troubleshooting tasks on operating systems. (CNT 118 or CNT 120)
3. Write and debug scripts for application in a network administration environment. (CNT 190)
4. Manage and maintain a Microsoft Windows Server Active Directory environment. (CNT 119)
5. Manage and support a Microsoft Windows Server network infrastructure. (CNT 219)
6. Plan and manage a Windows server infrastructure in an enterprise environment. (CNT 220)

## Course Outlines

### TDP 101 - Introduction to 3-D Printing

**Description:** Introduction to 3-D additive manufacturing from an engineering technology perspective including the study of the history, processes, equipment, industrial and commercial uses, and current trends.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

### TDP 108 - 3-D Printer Operation and Maintenance

**Description:** An introduction to 3-D printing technologies, 3-D printing methods and printable materials as well as current and emerging applications of 3-D printing. Additional topics include assembly, calibration, use, maintenance and troubleshooting of 3-D printers. This course is cross-listed with ELT 108.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

### TDP 201 - Slicing and Software for 3-D Printing

**Description:** Basic principles of 3-D printing and fabrication. Introduction to the design practices, tools, and techniques required to produce production-quality parts using multiple types of 3-D printers. Real-world fabrication methods and processes using industry-specific software.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

### TDP 210 - 3-D Model Optimization and Troubleshooting

**Description:** 3-D printing for fabricating three-dimensional solid objects from a digital design. Focused on studying the properties of 3-D printed specimens and modeling with varying processing conditions such as infill pattern, infill density and infill speed, and also with different printing materials.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

### TDP 250 - Industrial Projects for 3-D Printing

**Description:** Designing, modeling, and producing 3-D printed parts. Includes rapid prototyping to traditional large-scale production, operating scanners, processing scan data with software tools, and converting scan data to printable 3-D models. Exploration of the entire cycle from an original artifact to a scan-based model reproduction.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## 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.

**Prerequisites:** ACC 121 (may be taken concurrently)

**Recommended preparation:** ACC 131 and ACC 132

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## ACC 117 - Advanced Tax Planning and Preparation

**Description:** Advanced study in individual, corporate, and partnership taxation.

**Prerequisites:** ACC 115

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## ACC 121 - Introductory Accounting

**Description:** General ledger bookkeeping and preparing financial statements.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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

**Lab:** 0

## 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.

**Credits:** 3

**Lecture:** 3

**Lab:** 0



## **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

**Lab:** 0

## **ACC 160 - 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:** 3

**Lecture:** 3

**Lab:** 0

## **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 or ACC 131

**Recommended preparation:** ACC 131 and ACC 132

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **ACC 233 - 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:** 3

**Lecture:** 3

## ACC 234 - Intermediate Accounting II

**Description:** Integration of advanced accounting theory and practice, including investments, long and short-term liabilities, pension plans, stockholders' equity, and advanced analysis of financial statements.

**Prerequisites:** ACC 233

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## ACC 241 - IRS Enrolled Agent Review Part I

**Description:** Prepares students to sit for the first of three IRS Enrolled Agent exams, known as the SEE (Special Enrollment Exams) for Individual taxpayers. Topics include preliminary work and filing requirements, advising, income and assets, deductions and credits, and specialized returns.

**Prerequisites:** ACC 115  
**Recommended Preparation:** ACC 117

**Credits:** 1  
**Lecture:** 1  
**Lab:** 0

## ACC 242 - IRS Enrolled Agent Review Part II

**Description:**

Prepares students to sit for the Business and Representation IRS Enrolled Agent exams, known as the SEE (Special Enrollment Exams). Topics include financial information and returns for a variety of business entities, as well as client representation before the IRS.

**Prerequisites:** ACC 241

**Credits:** 2  
**Lecture:** 2  
**Lab:** 0

## 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. [Repeatable for a total of 6 credit hours towards degree/certificate requirements.] S/U grading only.

**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  
**Lecture:** 0  
**Lab:** 0

## **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

## **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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Critical Thinking

**Credits:** 3

**Lecture:** 3

## **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:** Introduction to the United States **and Arizona** Constitutions from the integrated social science perspectives of history, geography, and government. The United States Constitution, including the Bill of Rights and the Fourteenth Amendment. Includes the impact of U. S. Supreme Court opinions and Arizona 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **AJS 298 - Special Justice Topics:**

**Description:** Introduction to a special justice topic with great relevance to the field.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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 215 - Service Dog Public Access and Task Training 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. Introduces critical tasks that Service Dogs must fulfill for service of specific disabilities. Primary tasks for Service Dog. Teams are presented new training and exposure skills and proper communication with the public.

**Prerequisites:** AGC 190, AGC 192, and AGC 195

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **AGC 225 - Service Dog Public Access & Task Training II**

**Description:** Reinforces previous public access skills and tasks with 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. Teams learn new training skills and proper communication with the public. Introduces critical tasks that Service Dogs must fulfill for service of specific disabilities including task performance in public. Choosing and placing a Service Dog.

**Prerequisites:** AGC 215

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **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 emergencies.

**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**

**Description:** Horse Behavior as it relates to their care, healthy development, and overall welfare and needs. Perception, learning, communication, and stress are reviewed with a focus on the impact humans have on horses in management, sport, and industry. Basic behavior modification as well as ethical and effective training and handling principles within the context of behavior.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**Credits:** 3

## **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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4  
**Lecture:** 3  
**Lab:** 3

## **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 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, fish and alternative agricultural animals.

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AGS 156 - Organic Home Gardening**

**Description:** Introduction to organic gardening in Yavapai County. Includes basic plant selection, soils, nutrients, and practices consistent 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 202 - Summer Horticulture**

**Description:** Implementation and maintenance of environmentally responsible crops in the food producing industry. Emphasis on market scheduling, soil preparation, hydroponics, sowing and irrigation techniques. Students develop and implement the crop production schedule.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**Prerequisites:** Reading Proficiency

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## AHS 112 - Assisted Living Facility Caregiver

**Description:** Preparation for the role of caregiver in an assisted living home, facility, or home health care agency. Legal and ethical issues; communication; service plans; nutrition and food preparation; fire safety and emergency procedures; home environment and maintenance; basic caregiver skills; and medication management. Meets the requirements of the Arizona Board of Nursing Care Institution Administrators & Assisted Living Facility Managers (NCIA). Must be at least 18 years old.

**Prerequisites:** Reading proficiency

**Credits:** 3

**Lecture:** 3

**Lab:** 1

## 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.

**Prerequisites:** MAT 082 (or a satisfactory score on the mathematics skills assessment). Reading Proficiency.

**Credits:** 5

**Lecture:** 4

**Lab:** 3

## AHS 116 - Certified Nursing Assistant to Caregiver Bridge

**Description:** Prepares the certified nursing assistant for the role of assisted living facility caregiver and meets the training requirements of the Arizona Board of Nursing Care Institution Administrators and Assisted Living Facility Managers (NCIA). Admittance by application. Must be at least 18 years old. Applicant must be a certified nursing assistant with the state of Arizona and in "good standing".

**Prerequisites:** Reading proficiency.

**Credits:** 1.5

**Lecture:** 1.5

**Lab:** 0



## **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.

**Prerequisites:** BIO 160 (or BIO 201 and BIO 202 ), AHS 100 , AHS 130 and CSA 126

**Credits:** 3  
**Lecture:** 2  
**Lab:** 3

## **AHS 121 - Foundations of Medical Assisting II**

**Description:** Medical Assistant clinical skills including assisting in patient examinations, diagnostic and surgical procedures, medication administration, and immunizations.

**Prerequisites:** AHS 105, AHS 120, AHS 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.

**Prerequisites:** Reading Proficiency

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **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.

**Prerequisites:** AHS 130 AND AHS 160/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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AHS 173 - Legal and Ethical Issues in Healthcare**

**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.

**Prerequisites:** Reading Proficiency

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## **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.

**Prerequisites:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

## **AHS 240 - Human 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.

**Prerequisites:** BIO 160 or (BIO 201 and BIO 202). Reading Proficiency.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **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

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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

## **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

**Lab:** 0

## **ASL 102 - Beginning American Sign Language II**

**Description:** American Sign Language vocabulary, grammar, receptive, and expressive technique development.

**Prerequisites:** ASL 101

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **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.

**Prerequisites:** ASL 102

**Credits:** 4  
**Lecture:** 4  
**Lab:** 0

## **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.

**Prerequisites:** 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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

## **Anthropology**

### **ANT 101 - Stones, Bones, and Human Origins**

**Description:** Introduction to physical anthropology. Emphasis on population genetics, primate evolution and behavior, and fossil man.

**General Education Competency:** Written Communication

**Credits:** 3  
**Lecture:** 3

## **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.

**General Education Competency:** Diversity; Critical Thinking

**Credits:** 3

**Lecture:** 3

## **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.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 103

**Credits:** 3

**Lecture:** 3

## **ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective**

**Description:** Origins, elements, and forms of religion; a comparative survey of religious beliefs, myths, rituals and symbolism including magic, witchcraft and healing as practiced in selected regions of the world; the place of religion in the total culture.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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.

**Prerequisites:** 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.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## **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.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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 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

## 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.

**Prerequisites:** 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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Critical Thinking

**Credits:** 3

**Lecture:** 2

**Lab:** 4

## ART 113 - Three-Dimensional Design

ART 1115

**Description:** Study of design principles with emphasis on three-dimensional aesthetics. Planning of sculptural, utilitarian, and environmental objects. Application of design principles.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Critical Thinking

**Credits:** 3

**Lecture:** 2

**Lab:** 4

## 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 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.

**Prerequisites:** ART 120

**Credits:** 3  
**Lecture:** 1  
**Lab:** 5

## ART 129 - Digital Drawing and Painting

**Description:** Translate traditional drawing and painting techniques using digital tools on the computer with pressure-sensitive electronic pen tablets, stylus, and software to create digital art that implements various traditional mediums. Concept and personal style development will be emphasized.

**Prerequisites:** ART 110 or ART 112

**Credits:** 3  
**Lecture:** 1  
**Lab:** 5

## ART 130 - Web Site Design

**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.

**Prerequisites:** ART 137

**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.

**Prerequisites:** 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.

**Prerequisites:** 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:** 2

**Lab:** 3

## **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.

**Prerequisites:** 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 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.

**Prerequisites:** 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.

**Prerequisites:** ART 137

**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

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **ART 158 - Photography Topics:**

**Description:** Exploration of Photographic media.

**Prerequisites:** ART 154 (may be taken concurrently) or instructor permission.

**Credits:** 1

**Lecture:** 1

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** ART 196

**Credits:** 3  
**Lecture:** 1  
**Lab:** 5

## **ART 198 - Art Topics**

**Description:** Exploration of art media.

**Credits:** 1

**Lecture:** 1

## **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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** ART 121

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 231 - Digital Illustration**

**Description:** Contemporary styles in vector graphics and drawing. Skill development in logo and character design and information graphics using industry standard software. Application of design principles.

**Prerequisites:** 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.

**Prerequisites:** ART 112 and ART 137 or Instructor Permission.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **ART 234 - Advanced Graphic Design Projects**

**Description:** Advanced design projects using a combination of Adobe Creative Suite programs. Skill development in corporate design, self-promotion, typography, and advanced skills. Application of design principles.

**Prerequisites:** ART 131 and ART 231

**Credits:** 3

**Lecture:** 2

**Lab:** 4

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** ART 140 and ART 141

**Credits:** 3

**Lecture:** 1

**Lab:** 5



## **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.

**Prerequisites:** 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.

**Prerequisites:** ART 145

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **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.

**Prerequisites:** ART 247

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 258 - Photographic Lighting II**

**Description:** Advanced photographic lighting techniques. Studio and location lighting applications. Application of design principles.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** ART 260

**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.

**Prerequisites:** ART 181

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **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.

**Prerequisites:** ART 183

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **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.

**Prerequisites:** ART 191

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **ART 293 - Advanced Projects in Watercolor**

**Description:** Advanced projects in watercolor painting. Review of techniques and materials. Application of design principles.

**Prerequisites:** ART 195

**Credits:** 3

**Lecture:** 1

**Lab:** 5

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **ART 298 - Art Workshop**

**Description:** Exploration and application of media techniques.

**Credits:** 2

**Lecture:** 2

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** Prerequisite: AUT 275

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **AUT 295 - Apprenticeship: Diesel**

**Description:** Supervised field experience.

**Credits:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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 108 - Pre-Aviation Groundschool**

**Description:** Fundamentals of aerodynamics, aircraft operation and performance, weather, and preflight planning.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**Prerequisites:** Admission into the Aerospace Science program.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## 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. TRAINING HOURS: Dual Instruction (182): 29; Dual AATD: 16.3; Solo: 0; Pilot Briefings: 21.5; Pre/Post: 5; Total Flight Experience: 45.3; Total Aeronautical Experience: 71.8. The Cessna 141 King Kits is included in this course for the required ground training.

**Prerequisites:** Admission into the Aerospace Science program. AVT 115 and AVT 214 (prerequisites may be taken concurrently).

**Credits:** 4

**Lab:** 12

## AVT 119 - Pre-Aviation Flight Simulation

**Description:** Introduction to flying and basic flight operations via simulation. Includes basic flight maneuvers, traffic patterns, departures, approaches, and emergency procedures under simulated flight conditions.

**Credits:** 2

**Lecture:** 1

**Lab:** 3

2  
1

## 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.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## 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.

**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.

**Prerequisites:** 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).

**Prerequisites:** 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.

**Prerequisites:** MGT 220.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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.

**Prerequisites:** MGT 220.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **AVT 204 - Commercial Pilot Single-Engine Airplane Ground**

**Description:** Designed for students who are both private pilot and instrument flight rated for airplane flight and are seeking the commercial single engine pilot rating. Includes advanced airplane components, advanced aerodynamics and advanced performance.

**Prerequisites:** AVT 115.

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## **AVT 205 - Commercial Pilot Multi-Engine Airplane Ground**

**Description:** Designed for students who are both private pilot and instrument flight rated for airplane flight and are seeking the commercial single engine pilot rating. Includes advanced airplane components, meteorology, cross country flight, and commercial Federal Aviation Administration (FAA) regulations.

**Prerequisites:** AVT 204

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## **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.

**Prerequisites:** Admission to Aerospace Science program.

**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.

**Prerequisites:** AVT 205

**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. TRAINING HOURS: Dual Instruction (182): 29; Solo (172): 1.5; Dual AATD: 0; Solo: 0; Pilot Briefings: 49; Pre/Post: 5.4; Total Flight Experience: 30.5; Total Aeronautical Experience: 84.9.

**Prerequisites:** AVT 215 (may be taken concurrently) and AVT 218

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **AVT 217 - Commercial Pilot Single-Engine Airplane Flight**

**Description:** Designed for students who are both private pilot and instrument flight rated for airplane flight and are seeking the commercial single-engine pilot rating. Includes advanced airplane components, advanced aerodynamics and advanced performance. TRAINING HOURS: Dual Instruction (182): 44.5; Dual AATD: 12.8; Solo (172): 68; Pilot Briefings: 21.5; Pre/Post: 10.5; Total Flight Experience: 125.3; Total Aeronautical Experience: 157.3. The Cessna 141 King Kits is included in this course for the required ground training.

**Prerequisites:** AVT 204 (may be taken concurrently) and AVT 116

**Credits:** 6

**Lecture:** 2.5

**Lab:** 11.5

## AVT 218 - Commercial Pilot Multi-Engine Airplane Flight

**Description:** Designed for students who are both commercial single-engine and instrument flight rated for airplane flight and are seeking the commercial multi-engine pilot rating. Includes advanced airplane components, advanced aerodynamics and advanced performance. TRAINING HOURS: Dual Instruction (310): 30; Dual AATD: 0; Solo: 0; Pilot Briefings: 20; Pre/Post: 0; Total Flight Experience: 30; Total Aeronautical Experience: 50.

**Prerequisites:** AVT 205 (may be taken concurrently) and AVT 217

**Credits:** 6

**Lecture:** 2.5

**Lab:** 11.5

## 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 practical exam.

**Prerequisites:** AVT 215

**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 practical exam. TRAINING HOURS: Dual Instruction (182): 15.5; Dual AATD: 0; Solo: 0; Pilot Briefings: 29; Pre/Post: 3.0; Total Flight Experience: 15.5; Total Aeronautical Experience: 47.5.

**Prerequisites:** AVT 225 (may be taken concurrently) and AVT 216

**Credits:** 2

**Lecture:** 1

**Lab:** 3

2  
1

## AVT 247 - Flight Service Specialist

**Description:** Advanced skill sets needed for employment as a FlightService 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.

**Prerequisites:** 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.

**Prerequisites:** AVT 122, AVT 123, AVT 124 (AVT 124 may be taken concurrently)

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **AVT 260 - Fundamentals of Instruction**

**Description:** Instructional strategies and planning, communications, student evaluation, the learning process and instructor responsibilities.

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **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.

**Prerequisites:** Admission to program and GEO 212.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **AVT 290 - Commercial Added Category- Airplane Single Engine Land**

**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. TRAINING HOURS: Dual Instruction (182): 63.1; Dual AATD: 0; Solo: 0; Pilot Briefings: 20.5; Pre/Post: 12; Total Flight Experience: 63.1; Total Aeronautical Experience: 95.6.

**Prerequisites:** AVT 204 (may be taken concurrently) and Commercial Rotorcraft- Helicopter rating

**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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## 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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## BIO 160 - Intro 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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## 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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## 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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Scientific Literacy

**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.

**Prerequisites:** BIO 156 or BIO 181

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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.

**Prerequisites:** BIO 201

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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.

**Prerequisites:** BIO 100 or BIO 156 or BIO 181. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **BIO 299 - Independent Study Biology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **BRW 100 - Beer Production and Styles**

**Description:** Introduces origins, basic production methods, and identification of major beer styles. Development of sensory evaluation skills for visual, aroma, taste, and tactile components of both typical beers and faults. Must be 21 years of age or older to enroll.

**Credits:** 1

**Lecture:** 1

**Lab:** 0.5

## **BRW 110 - Brewing Equipment and Maintenance**

**Description:** Provides a foundation in brewing equipment, brewery operation, and process design and economics. Engineering considerations including operational safety, fermentation kinetics, unit operations, and economies of scale. Maintenance and operation of brewing, packaging equipment, and warehouse machinery.

**Credits:** 4

**Lecture:** 3

**Lab:** 2

## **BRW 130 - Beer Production I**

**Description:** Overview of the brewing process including the biological, chemical, and logistical aspects of beer production. Theory and hands-on application of cellar operations, raw materials selection, handling, malting, wort production, fermentation, and carbonation.

**Credits:** 3

**Lecture:** 2

**Lab:** 2



## **BRW 140 - Beer Production II**

**Description:** Theory and hands-on application of advanced beer production and distribution. Quality control and analysis including the economic considerations of commercial beer production. Introduction to the taxes and governmental regulations pertaining to beer production and distribution.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **BRW 192 - Draught Systems**

**Description:** Proper procedures for installing, maintaining, and dispensing beer through a draught system. Theory and hands-on instruction. Topics include: temperature and storage, nitrogen and carbon dioxide handling, line cleaning, and quality assurance and troubleshooting.

**Credits:** 1

**Lecture:** 1

**Lab:** 0.5

## **BRW 195 - Brewing Practicum**

**Description:** Practical experience in beer making while working at an approved brewery and receiving supervision from a professional brewer. Must be 21 years of age or older to enroll.

**Prerequisites:** BRW 130

**Credits:** 3

**Lecture:** 0

**Lab:** 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

**Lab:** 0

## **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.

**Prerequisites:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** MAT 092 or one year of high school algebra or satisfactory score on mathematics skills assessment. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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.

**Prerequisites:** MAT 097 or higher or two years of high school algebra. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 5

**Lecture:** 4

**Lab:** 3

## **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.

**Prerequisites:** CHM 151. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 5

**Lecture:** 4

**Lab:** 3

## **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.

**Prerequisites:** CHM 151. Reading Proficiency

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 4

## **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.

**Prerequisites:** CHM 235 (may be taken concurrently). Reading Proficiency.

**Credits:** 1

**Lab:** 3

## **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.

**Prerequisites:** CHM 235

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 4

### **CHM 236L - General Organic Chemistry II Lab CHM 2236.**

**Description:** Additional techniques in organic chemistry; preparation, separation and identification of organic compounds.

**Prerequisites:** CHM 236 (may be taken concurrently) and CHM 235L

**Credits:** 1

**Lab:** 3

### **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

### **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.

**Prerequisites:** Admission to the College Honors Program. Reading Proficiency.

**Credits:** 1

**Lecture:** 1

**Lab:** 1

### **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## 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 200 - Commercial Driver Refresher/Extender

**Description:** Designed for the student who currently holds a Commercial Class A or B permit or license. Hands on and classroom instruction provide additional training for the commercial driver to polish their road skills and brush up on the rules of the road. Behind the wheel training, pre-trip, intersections, cargo, log books, city driving.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## CDT 250 - Commercial License Prep

**Description:** Preparation for the state commercial drivers license (CDL) permit exam covering the General Knowledge exam, Air Brake exam, and Combination exam. Includes hours of driver service, coupling and uncoupling a tractor and trailer, cargo handling, hazardous materials, pre-trip inspection, braking maneuvers, and trip planning. Following the AZ CDL Permit exam, topics include managing a professional driver's life, managing speed and space effectively, and road and weather condition response. 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:** 1

**Lecture:** 1

**Lab:** 0

## CDT 255 - Commercial Behind the Wheel

**Description:** Demonstration and skill development of basic maneuvers of driving a combination vehicle. Driving proficiency development includes performing Pre-Trip Inspection to FMCSA Standards, basic control skills in backing, and operation of a Class A vehicle on public roadways. Also includes proper techniques for performing visual search, shifting, turning, space and speed management, and hazard perception. Preparation for Commercial Driver's License (CDL) skill examination. Student will be responsible for all fees associated with the ADOT CDL Road Test.

**Prerequisites:** Valid CDL Permit

**Credits:** 17

**Lecture:** 9

**Lab:** 16

## **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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** OPTIONS/Written Communication

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** OPTIONS/Written Communication

**Credits:** 3

**Lecture:** 3

## **COM 135 - Workplace Communication Skills**

**Description:** Oral and written workplace communication skills. Application of individual and group communication strategies to secure and maintain employment.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** Reading Proficiency

**Credits:** 3

**Lecture:** 3

## 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## 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 101 - Networking and Cybersecurity Fundamentals**

**Description:** Essential skills practiced in the networking and cybersecurity professions. Network device operation and configuration, network protocols, network security, and troubleshooting are key topics of discussion with hands-on activities. The latest networking standards and technologies are covered.

**Credits:** 4  
**Lecture:** 3  
**Lab:** 2

## **CNT 102 - Google IT Support I**

**Description:** First of two courses based on the Google IT Support Professional Certificate, which is designed to prepare the student for a role as an entry-level IT Support Specialist. Introduction to information technology concepts including computer hardware and software, networking technologies, and operating systems. Successful completion of this course, along with CNT 103, earns students the Google IT Support Professional Certificate.

**Corequisite:** CNT 103

**Credits:** 4  
**Lecture:** 3  
**Lab:** 2

## **CNT 103 - Google IT Support II**

**Description:** Second of two courses based on the Google IT Support Professional Certificate, which is designed to prepare the student for a role as an entry-level IT Support Specialist. Includes system administration and IT infrastructure concepts and the tools and methods used in cybersecurity. Successful completion of this course, along with CNT 102, earns students the Google IT Support Professional Certificate.

**Corequisite:** CNT 102

**Credits:** 3  
**Lecture:** 2  
**Lab:** 2

## **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.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 2

## **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.

**Prerequisites:** CNT 100

**Credits:** 4  
**Lecture:** 3  
**Lab:** 3

## **CNT 118 - Operating System Fundamentals**

**Description:** An introduction to operating system concepts and functions. Topics include memory management, processes and threads, file systems, networking, virtualization, and operating system security.

**Prerequisites:** CNT 100 or CNT 101 or CNT 110

**Credits:** 3  
**Lecture:** 2  
**Lab:** 2

## **CNT 119 - Windows Server I**

**Description:** Configuration of a Windows Server network environment. Topics include configuring TCP/IP, DNS, DHCP, and remote access.

**Prerequisites:** CNT 118 or CNT 120

**Credits:** 3  
**Lecture:** 2  
**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.

**Prerequisites:** 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.

**Prerequisites:** CNT 100 or CNT 115 or CNT 120

**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.

**Prerequisites:** CNT 115 or CNT 120 or CNT 121

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **CNT 131 - Linux System Administration**

**Description:** Installation, management, and support of the Linux operating system. Advanced topics including disk management, configuration of network services, and security.

**Prerequisites:** CNT 115 or CNT 118 or CNT 120

**Credits:** 3

**Lecture:** 2

**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 Comp/TIA Security+ certification.

**Prerequisites:** CNT105 or CNT110.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 140 - Cisco Routing and Switching I**

**Description:** Study of computer networking standards and operation. Includes network topologies, network protocols and communications, network addressing, network device configuration, network design, and network security. First of three courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

**Prerequisites:** CNT 101 or CNT 115

**Credits:** 4

**Lecture:** 3

**Lab:** 2

## **CNT 150 - Cisco Routing and Switching II**

**Description:** Network routing and switching concepts and configuration. Includes static and dynamic routing, switch and VLAN configuration, LAN security, wireless LAN configuration, and router troubleshooting. Second of three courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

**Prerequisites:** CNT 140

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **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.

**Prerequisites:** CNT 115 or CNT 120 or CNT 140

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 160 - Cisco Routing and Switching III**

**Description:** Network routing protocols, router and protocol security, network management and design concepts in a medium to large network. Includes configuration and troubleshooting of dynamic routing protocols, WAN concepts, access control and network address translation. Network virtualization and automation concepts are also discussed. Third of three courses to prepare students to pass the Cisco Certified Network Associate (CCNA) certification examination.

**Prerequisites:** CNT 150

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **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 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.

**Prerequisites:** CNT 100 or CNT 101

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **CNT 219 - Windows Server II**

**Description:** Configuration of identity management in a Windows Server environment. Topics include Active Directory, Group Policy, Domain Controllers, and advanced identity solutions.

**Prerequisites:** CNT 119

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **CNT 220 - Windows Server III**

**Description:** Configuring advanced Windows Server services. Emphasis on high availability, disaster recovery, and Active Directory infrastructure.

**Prerequisites:** CNT 119

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **CNT 235 - Cybersecurity Operations**

**Description:** Advanced network security concepts and techniques used in a Security Operations Center (SOC) to find threats on a network using a variety of popular security tools. Preparation for Cisco Certified CyberOps Associate certification.

**Prerequisites:** CNT135

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 250 - Securing Network Devices**

**Description:** Advanced course on installation, configuration and operation of network security on Cisco routers and firewalls: AAA, access control, intrusion detection, NAT, and VPNs.

**Prerequisites:** CNT 150

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 260 - Cybersecurity Forensics**

**Description:** Application of cybersecurity forensics techniques with a focus on investigating and analyzing network traffic and understanding legal requirements. Use of common digital forensics tools to gather, analyze and preserve evidence in response to an incident.

**Prerequisites:** CNT 135

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **CNT 275 - Penetration Testing and Vulnerability Assessment**

**Description:** Penetration testing and vulnerability assessment of computer networks. Learn to set up a cybersecurity lab for practicing information gathering and identifying and exploiting vulnerabilities. Ethical considerations, careers in ethical hacking, frameworks, and methodologies are examined.

**Prerequisites:** CNT 135 and CNT 190

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **CNT 293 - CNT Project: Cybersecurity**

**Description:** Incorporation of project design, project system analysis, and technology applications with a focus on cybersecurity.

**Prerequisites:** CNT 150 and CNT 235

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**Prerequisites:** 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

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** CNC 201

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **CSC 105 - Introduction to Programming**

**Description:** An introduction to computer programming concepts and problem solving skills. Pseudocode, flowcharting and code writing will be used to design and develop software solutions.

**Credits:** 3

**Lecture:** 3

## **CSC 113 - Programming: Python**

**Description:** An introduction to the core principles of Python. Topics includes analyzing, designing, coding, testing and debugging Python programs.

**Prerequisites:** CSC 105 (may be taken concurrently)

**Credits:** 3

**Lecture:** 3

## **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:** Core principles of C# and the .Net framework will be used to solve real-world problems. Graphical User Interface based applications that utilize forms and controls will be designed, constructed and tested.

**Prerequisites:** CSC 105

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** CSC 105 (may be taken concurrently)

**Credits:** 3

**Lecture:** 3



## **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.

**Prerequisites:** CSC 105 (may not be taken concurrently) and CSA 282 (may be taken concurrently)

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CSC 220 - Programming: Java**

**Description:** Core principles of the Java programming language including a focus on object oriented programming and advanced programming concepts.

**Prerequisites:** CSC 105

**Credits:** 3

**Lecture:** 3

## **CSA 107 - Technology Networking Tools (TNT)**

**Description:** Designed for users in diverse settings (Personal and Professional). Emphasis on systematic processes for designing, developing, evaluating, and implementing technology effectively. These technologies can impact productivity, creativity, and communication.

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **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

## **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 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 125 - Microsoft Outlook

**Description:** Introduces the basic features of Microsoft Outlook to send, receive and manage e-mail, organize schedules and events, and maintain contact lists, to-do lists, and tasks. Emphasizes the Outlook skills necessary in business environments. Preparation for the Microsoft Office Specialist exam for Microsoft Outlook.

**Credits:** 1  
**Lecture:** 1  
**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.

**Prerequisites:** 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 172 - Microsoft Windows**

**Description:** Introduction to the Microsoft Windows operating system for personal computers. Customize, optimize, secure and maintain Windows; utilize accessory apps, desktop settings, manage peripheral devices, folders and files.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **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 to better prepare the student for a future in Full Stack development and beyond. Includes application planning, front & back end development, debugging, database abstraction, security practice, and deployment. Also features content such as source control and unit testing.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** CSA 126 and CSA 281 and CSA 282 and CSC 105

**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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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

## **CBT 100 - Basic Carpentry I**

**Description:** Introduction to carpentry safety, hand and power tool operation, blueprint reading, materials, and layout. Hands-on experience in cutting, fastening, footings, framing, assembly, door/window installation, flooring, and finishing.

**Credits:** 8

**Lecture:** 1

**Lab:** 14

## **CBT 110 - Basic Carpentry II**

**Description:** Reinforcement of skills learned in Basic Carpentry I with hands-on experience in cutting, fastening, footings, framing, assembly, door/window installation, flooring, and finishing.

**Prerequisites:** CBT 100

**Credits:** 8

**Lecture:** 1

**Lab:** 14

## **CBT 112 - Plumbing Codes & Standards, Blueprint, and Design**

**Description:** Introduction to reading, interpreting, and applying plumbing blueprints on the jobsite, including basic understanding of plumbing-specific symbols. Focuses on plumbing codes and standards, and how code requirements apply to plumbing drawings. Also includes plumbing mathematics and how to apply it to on-the-job situations.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **CBT 115 - Basic Residential Electrician**

**Description:** Safely install, operate, maintain, and repair residential AC and DC, catv and data systems. Includes the principles of electrical systems, wiring, power transmission, cable TV and data systems safety, and applicable codes and standards.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## CBT 120 - Basic Residential Plumbing

**Description:** Basic knowledge and skills used in the residential plumbing trade. Includes safety, materials, measurement, and installation of water, waste, and gas plumbing systems.

**Credits:** 5  
**Lecture:** 3  
**Lab:** 4

## CBT 212 - Drain, Waste, and Vent Systems

**Description:** Introduction to plumbing drain, waste, and vent systems. Exploration of alternative waste systems and plumbing supply systems.

**Credits:** 1  
**Lecture:** 0  
**Lab:** 2

## CRW 139 - Introduction to Creative Writing

**Description:** Techniques in writing, evaluating, and critiquing poetry, fiction and creative non-fiction. Includes writing a documented analysis.

**Prerequisites:** ENG 100 or COM 135 or satisfactory score on the English skill assessment. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## CRW 140 - Short Story Writing

**Description:** Beginning techniques used in writing fiction, focusing on the short story.

**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

### **CRW 249 - Topics in Creative Writing:**

**Description:** Analysis, writing, and revision of element within fiction, poetry, or creative nonfiction.

**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.

**Prerequisites:** 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.

**Prerequisites:** CRW 139 or CRW 140

**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

### **CUL 100 - Food Safety and Sanitation**

**Description:** Basic food safety practices for preparing and serving food. Utilizes the ServSafe materials prepared by the National Restaurant Association Education Foundation to prepare students for a national examination.

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **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 110 - Cake Decorating Basics**

**Description:** Design and produce a variety of cakes for special occasions. Decorating and finishing techniques such as flowers, borders, writing styles and air brushing will be emphasized.

**Credits:** 3

**Lecture:** 1

**Lab:** 4



## **CUL 111 - Food Purchasing and Cost Control**

**Description:** Methods to control costs in a food service operation while making a profit. Focus is on principles and procedures of an effective food purchasing system. Preparation for ServSafe certification.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **CUL 112 - Plated Desserts**

**Description:** The art of plating and presenting desserts as an integral part of the dining experience. Includes cold and hot desserts such as strudels, cobblers, parfaits, crepes, ice cream, sorbets and sherbets.

**Credits:** 4

**Lecture:** 2

**Lab:** 4

## **CUL 113 - Pastry Centerpieces and Wedding Cakes**

**Description:** Creation of wedding cakes and practical pastry centerpieces for table and buffet presentations. Includes hands-on techniques applied to common mediums like sugar, chocolate, butter cream, royal icing and fondant.

**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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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:** 3  
**Lecture:** 2  
**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 120 - Ballet II**

**Description:** Theory and practice of ballet at the accelerated beginning level. Development of movement quality and performance skills.

**Prerequisites:** DAN 110

**Credits:** 3  
**Lecture:** 2  
**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

**Lecture:** 0

**Lab:** 2-6

## DAN 198A - Dance Topics:

**Description:** Exploration of partner dance styles.

**Credits:** 1-3

**Lecture:** 0

**Lab:** 2-6

## DAN 198B - Dance Topics:

**Description:** Exploration of partner dance styles.

**Credits:** 1-3

**Lecture:** 0

**Lab:** 2-6

## 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## 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.

**Prerequisites:** 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 201A - Introduction to the Child Care Profession A**

**Description:** One of three courses that together introduce the child care profession. This course focuses on child development and appropriate learning environments for children from birth through age five.

**Credits:** 1  
**Lecture:** 1  
**Lab:** 0

## **ECE 201B - Introduction to the Child Care Profession B**

**Description:** One of three courses that together introduce the child care profession. This course emphasizes behavior guidance and learning environments that nurture development.

**Credits:** 1  
**Lecture:** 1  
**Lab:** 0

## **ECE 201C - Introduction to the Child Care Profession C**

**Description:** One of three courses that together introduce the child care profession. This course focuses on the DES Health & Safety modules.

**Credits:** 1  
**Lecture:** 1  
**Lab:** 0

## **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 child development theories with very young children, focusing on the developmental periods of prenatal, infancy, and toddlerhood assuming a relationship-based approach providing a nurturing and stimulating environment promoting child development in the areas of cognitive, language, social-emotional, and motor development. Special focus on a transactional approach to attachment, risk and protective factors, brain development, and social-emotional development of infants and toddlers.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **ECE 216 - Playing to Learn**

**Description:** Exploration of the importance of play in facilitating child development in the areas of physical, cognitive, language, and social-emotional development, along with emotional regulation of young children. Special focus on the power of play-based learning experiences in promoting developmental and learning outcomes with infants, toddlers, preschoolers, and early elementary age children. Discussion of the secular trend of marked decline of play with grave consequences, contrasted with mounting research underscoring that play matters. Observation and assessment of play in order to monitor and adjust play-based learning experiences to maximize developmental and learning outcomes.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **ECE 222 - Introduction to the Exceptional Learner**

**Description:** Exploration of the variety of exceptional learners with developmental, motor, cognitive, language, social, and/or emotional challenges. Topics include characteristics of various exceptional learners, child find screenings, developmental and psychoeducational assessment, educational programming and interventions, and coordination with parents, professionals, and agencies to design appropriate programs and services to promote growth and development. This course is cross-listed 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:** Exploration of children's development from conception through middle childhood, assuming a transactional approach to understanding development focusing on family relationships, brain development, and social-emotional development. Risk and protective factors are analyzed with respect to the interplay of attachment, brain development, and social-emotional development. Developmental periods include prenatal, infancy, toddlerhood, preschool years, and middle childhood, with an examination of biological influences, cognition, behavioral characteristics, social interaction, and cultural resources typified at each developmental period. This course is cross-listed with PSY 234.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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. This course is cross-listed with EDU 240.

**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.

**Prerequisites:** ECE 200 and ECE 202 and ECE 234/PSY 234 (prerequisites may be taken concurrently).

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **ECE 260 - Child Guidance**

**Description:** Relationship-based proactive strategies to promote pro-social development of young children (infants, toddlers, preschoolers, and early elementary children). Special focus on building relationships outside of conflict and sustaining relationships during conflicts, utilizing developmentally effective teaching and guidance approaches, and employing effective teacher-child communication balanced with nurturing guidance and supportive instruction. Particular emphasis on the interplay of attachment and self-regulation, along with a trauma-informed brain-based approach to interventions with persistent and challenging behaviors. This course is cross-listed with PSY 260.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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 280 - Observation and Assessment of the Young Child**

**Description:** Developmentally appropriate, culturally responsive observation and assessment strategies for studying the physical, cognitive, language, social, and emotional development of young children (birth to eight years). Special focus on the development of skills with observation strategies, developmental screenings, and systematic documentation to promote an understanding of child development and to design appropriate programs, environments, and activities.

**Prerequisites:** ECE 200

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **ECE 291 - Early Childhood Practicum**

**Description:** Directed field experiences with young children (birth to eight years) in varied early childhood education settings; applying child development theories and principles in support of developmentally effective approaches; planning and facilitating small and large group play-based learning experiences aligned with Arizona Early Learning Standards; refining observation and evaluation skills; adapting curriculum to children's abilities and interests; practicing effective interactions and child guidance techniques; and evaluating the components of quality early childhood education programs. Required practicum experiences in at least two of the three early childhood groups (B-3, 3-5, or 5-8 years) and in at least two different approved early childhood settings. Approval of the Early Childhood Practicum Application along with evidence of successful completion of the standard security and safety specifications are required prior to enrollment in ECE 291.

**Prerequisites:** ECE 200, ECE 202, ECE 222, ECE 230, ECE/PSY 234, ECE 270, and ECE 280.

**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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **ECE 298 - Special Topics: Early Childhood Education**

**Description:** Introduction to special topics in Early Childhood Education.

**Credits:** 1

**Lecture:** 1

## **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 110 - Economics of Sports**

**Description:** Application of economic theories to various aspects of professional and collegiate sports. Topics covered include the economic impact of sports to a local community, wage discrimination, the economics of publicly and privately funded stadiums, alumni giving, academics, broadcasting, and building a fan base.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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.

**Prerequisites:** MAT 097

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** 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.

**General Education Competency:** Quantitative Literacy

**Credits:** 3  
**Lecture:** 3

### **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

### **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**Credits:** 3

### **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 180 - Education Technology: Teaching and Learning in a Digital Age**

**Description:** Introduction to the rapidly changing nature of computer technology and information systems in teaching and learning and its practical and ethical impact on social, organizational, personal and ethical issues. Exploration of new and emerging education technologies as well as the history of technology integration. Includes the digital divide and its impact on ethnicity and race pertaining to school equality and technology innovation.

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **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.

**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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Diversity, Critical Thinking

**Credits:** 3

**Lecture:** 3

## **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 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. This course is cross-listed with ECE 240.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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

## 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

## ELT 108 - 3-D Printer Operation and Maintenance

**Description:** An introduction to 3-D printing technologies, 3-D printing methods and printable materials as well as current and emerging applications of 3-D printing. Additional topics include assembly, calibration, use, maintenance and troubleshooting of 3-D printers. This course is cross-listed with TDP 108.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## 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.

**Prerequisites:** 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.

**Prerequisites:** 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 135 - Robot Operator

**Description:** Fundamentals of robot operation including robot movement, robot sensing and decision-making with I/O devices. Students will have the opportunity to certify as FANUC HandlingTool Operator/Programmers and Universal Robots Operators.

**Credits:** 2

**Lecture:** 1

**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.

**Prerequisites:** 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.

**Prerequisites:** 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

## 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.

**Prerequisites:** ELT 101 or ELT 111

**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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** ELT 202

**Credits:** 6  
**Lecture:** 2  
**Lab:** 8

## **ELT 220 - National Electrical Codes**

**Description:** Prepares students to use NEC as a guide for the safe installation of electrical equipment in a residential setting. Emphasizes charts, rulings, wire methods, and state and local regulations. Includes applying appropriate code to all aspects of electrical installation.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 2

## **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.

**Prerequisites:** 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.

**Prerequisites:** ELT 126 and ELT 162

**Credits:** 2  
**Lecture:** 0  
**Lab:** 4

## **ELT 272 - Motors and Motor Controls**

**Description:** Characteristics, performance and control of rotating electrical machinery, transformers and associated equipment.

**Prerequisites:** ELT 126.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 2

## **ELT 295 - Apprenticeship: Electrical Instrumentation**

**Description:** Supervised field experience.

**Credits:** 3



## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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

## **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

## **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

## **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.

**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 be 17.5 years of age at the start of class.

**Prerequisites:** Reading Proficiency

**Credits:** 10

**Lecture:** 8

**Lab:** 6

## EMS 140 - Pre-Hospital Trauma Life Support

**Description:** Management of traumatically injured individuals including sequence of assessment and techniques of resuscitation, stabilization and transport. Organized approach to trauma care for EMTs and nurses who evaluate and stabilize the trauma victim. Stresses conditions which cannot be stabilized in pre-hospital environment and require immediate transport. Designed for healthcare professionals including first responders, EMRs, EMTs, paramedics, RNs or other allied health professionals who hold suitable qualifications for understanding the materials.

**Credits:** 2

**Lecture:** 1

**Lab:** 1.5

## 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.

**Corequisite:** 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 certification in adult, pediatric, and infant cardiopulmonary resuscitation through instruction consistent with American Heart Association recommendations for emergency cardiovascular care by EMCTs. This would include applicable courses from the following associations: American Heart Association (AHA), American Red Cross (ARC), National Safety Council (NSC), Medic First Aid (MFA), American Health and Safety (ASHI) and the Military Training Network (MTN).

**Credits:** 2

**Lecture:** 2

## 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.

**Corequisite:** 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:** 2

## 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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**

**EGR 1102.**

**Description:** Introduction to the field of engineering. Emphasizes the integration of teamwork, problem solving, and verbal communication skills into a design project.

**Prerequisites:** MAT 187 or (MAT 182 and MAT 183). 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.

**Prerequisites:** Satisfactory score on the reading skills assessment.

**Credits:** 4

**Lecture:** 4

## **ENG 095 - Fundamental Skills for College Composition**

**Description:** Fundamental skills for reading and writing in college. Introduction to college-level reading skills will emphasize developing vocabulary, using adaptive reading strategies, recognizing organizational patterns, identifying main ideas and supporting details, and analyzing for comprehension. Includes an introduction to basic sentence, paragraph and essay writing skills required for success in college.

**Prerequisites:** Satisfactory score on the skills assessment or placement using Multiple Measures chart.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **ENG 100 - Introductory Composition**

**Description:** Introduction to basic writing, reading and research skills required for success in college.

**Prerequisites:** Satisfactory score on the skills assessment. ENG 085 (This may be taken concurrently). Reading Proficiency.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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.

**General Education Competency:** Written Communication -

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## ENG 101A - College Composition I with Writing Skills Review

**Description:** Composing expository and argumentative essays for specific audiences. Emphasis on the processes of writing, reading and critical thinking. Introduction to research and documentation. Development of active reading skills. Intensive review of essay form and conventions of standard written English.

**Prerequisites:** ENG 100 or ENG 095 or satisfactory score on the skills assessment or placement using Multiple Measures chart. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## 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.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**Prerequisites:** Placement by English skills assessment. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** ENG 103, or ENG 101 and placement by English skills assessment. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## ENG 136 - Technical Writing

**Description:** Practical writing for the world of work, from business correspondence to technical reports.

**Prerequisites:** Satisfactory score on the English skills assessment, ENG 100 or COM 135.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## ENG 140 - Reading Across the Curriculum

**Description:** Develop academic reading and critical thinking strategies. Focus on improving reading comprehension, information literacy, and vocabulary.

**Prerequisites:** ENG 100 or higher level composition (may be taken concurrently) or satisfactory score on the English skills assessment. Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## ENG 210 - Introduction to Rhetoric

**Description:** Study of important works concerning theories of invention, arrangement, style, and delivery. Includes development of the written voice to enhance all aspects of communication to carry out work and persuasion. Also includes the application of rhetorical theories to a variety of material, print, and digital forms of communication.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:**

**Lecture:** 3

3

## **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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **ENG 230 - Introduction to Literature**

**Description:** Introduction to close reading and writing about a variety of works of literature from different genres.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3



## 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

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## ENG 242 - Introduction to Shakespeare

**Description:** Survey of selected works of William Shakespeare's literature from multiple genres of plays, poems, and sonnets.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **ENG 298 - Special Topics in Literature**

**Description:** Investigation of major artistic, historical and philosophical issues in representative works of literature within topic or genre.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## **ENG 299 - Independent Study English**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **EXW 100M - Foundations of Mind-Body Exercise**

**Description:** Introduction to the theory, practice, and techniques of mind-body exercise related to personal training and fitness instruction. Exploration of practices and complementary activities that contribute to enhanced body awareness, relaxation response and mental focus. Includes research-supported practice techniques that are associated with health benefits.

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **EXW 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

## **EXW 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

**Lab:** 0

## **EXW 150 - Essentials of Athletic Injury Management and Prevention**

**Description:** Introduction to the essentials of prevention and management of athletic and active related injuries and illnesses. Includes utilizing primary, secondary and focused assessment and recognition of athletic injuries, prevention concepts such as pre-participation exams, protective equipment standards etc. and overall basic athletic injury and illness management.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 3

## **EXW 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  
**Lab:** 0

## **EXW 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.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **EXW 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:** 1  
**Lab:** 2

## **EXW 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

## **EXW 157 - Performance Nutrition**

**Description:** The scientific basis of nutrition, hydration, and physical training principles including processes and patterns that together promote health, sport performance, and rapid recovery. Suitable for students pursuing careers in exercise science and for personal interest.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **EXW 168 - Sport Psychology and Mental Skills**

**Description:** Interaction between psychological variables and performance in sport and physical activity. Emphasis on the coach/teacher role in teaching and assessing mental training skills that influence participation and enhance performance.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **EXW 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

**Lab:** 0

## **EXW 205 - Stress, Lifestyle and Health**

**Description:** Examination of the stress process as it relates to health, disease, lifestyle, and the sociocultural environment. Emphasis is on cognitive skills, healthy lifestyle habits and relaxation techniques that may prevent and/or alleviate physical, mental, emotional, social and physiological symptoms of stress. The learning activities of the course are both theoretical and experiential.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **EXW 251 - Integrated and Applied Exercise Science**

**Description:** Study of Exercise Sciences and related topics as they impact exercise. Emphasis on anatomy, physiology, kinesiology, biomechanics, body composition and nutrition. Designed for students preparing to become personal trainers, fitness instructors, coaches or Physical Education majors.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **EXW 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

**Lab:** 0

## **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 104 - Podcasting**

**Description:** Fundamentals of creating a podcast using news reporting, commentary and storytelling. Includes cross marketing with blogs, social media, photography and video.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **FMA 105 - Production II**

**Description:** Skills and techniques for planning location and studio shoots; directing, cinematography and sound capture using digital cameras.

**Prerequisites:** 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 - Post-Production**

**Description:** Post-Production focuses on story structure of thesis through polished film, including sound, music and picture. Post-Production management includes keeping workflow current.

**Prerequisites:** ART 139/FMA 139 (may be taken concurrently) or FMA 102

**Credits:** 3

**Lecture:** 3

## **FMA 108 - Social Media Planning and Implementation**

**Description:** Establishment and maintenance of social media channels for professional promotion including YouTube, TikTok and Instagram. Includes both the production of content as well as marketing and business strategies for promoting the channels.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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 film and media production, including completion of a budget, break down of a script, methods for 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 116 - The Business of Content Creation**

**Description:** Integration of technical and creative aspects of content creation with practical industry aspects. Includes setting up an independent production company, resume and reel creation. Exploration of film festivals for marketing, networking and supporting materials preparation.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **FMA 117 - Cinematography**

**Description:** Field production course exploring cinematic storytelling through camera techniques, lighting styles, sound design and editing for film and media.

**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.

**Prerequisites:** 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.

**Prerequisites:** FMA 103

**Credits:** 3

**Lecture:** 3

## **FMA 131 - Characters, Conflicts and Story**

**Description:** Fundamental elements of writing for on-screen storytelling focused on story structure, and character development.

**Credits:** 3

**Lecture:** 3

**Lab:** 0



## **FMA 132 - Citizen Journalism**

**Description:** Fundamentals of news reporting through digital media. Includes blogs, social media, photo, video, and podcasts.

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **FMA 133 - Introduction to Media and Cinema**

**Description:** Storytelling techniques, aesthetics and social effects of cinema on popular culture in the forms of advertising, marketing, video games, virtual reality and the Internet, (media) and how film and TV are influenced by emerging media.

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **FMA 134 - Immersive Transmedia Storytelling**

**Description:** Design a cohesive story experience across traditional and digital delivery platforms - for entertainment, advertising, marketing or social change.

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **FMA 135 - Writing for Games and Virtual Reality**

**Description:** Writing for 360° environment created by video games and virtual reality (VR) using story maps and professional screenwriting format with non-linear narrative design. Types of script includes action-adventure, role-playing game (RPG), first-person shooter (FPS) and puzzles.

**Prerequisites:** FMA 103

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **FMA 138 - Motion Graphics**

**Description:** Industry standard software used to combine filmmaking, video, images, and sound to communicate dynamic 3D titles and visual effects (FX) and can be applied in a wide range of communication fields including commercials, title design, television, social media, games, music videos and websites.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 2

## **FMA 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. This course is cross-listed with ART 139.

**Credits:** 3

**Lecture:** 2

**Lab:** 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** 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 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **GEO 102 - World Geography East**

**GEO 1121.**

**Description:** A geographical exploration of the people, places, and landscapes of Africa, Asia and Australia/Pacific Islands.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **GEO 103 - Introduction to Physical Geography**

**Description:** A geographic introduction to the physical processes and landforms of the earth.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**General Education Competency:** Critical Thinking

**Credits:** 3

**Lecture:** 3

## **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.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **GLG 102 - Introduction to Geology II GLG 1102.**

**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.

**Prerequisites:** GLG 101 or GLG 110. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **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.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## **GLG 132 - Topics in Regional Geology**

**Description:** Basic geology, geography, and geologic formation of selected regions.

**Credits:** 2

**Lecture:** 1

**Lab:** 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **GLG 299 - Independent Study Geology**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## **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.

**Prerequisites:** Admission to the Gunsmithing Program.

**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.

**Prerequisites:** 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.

**Prerequisites:** GST 191

**Credits:** 3

**Lecture:** 1

**Lab:** 6

## **GST 195A - Gunsmithing Practicum**

**Description:** Laboratory and extended shop experience for students to develop skills in project planning, drawing and craftsmanship.

**Prerequisites:** Concurrent enrollment in GST 100 or GST 150

**Credits:** 2

**Lecture:** 0

**Lab:** 6

## **GST 195B - Gunsmithing Practicum**

**Description:** Laboratory and extended shop experience for students to develop skills in project planning, drawing and craftsmanship.

**Prerequisites:** Concurrent enrollment in GST 100 or GST 150

**Credits:** 2

**Lecture:** 0

**Lab:** 6

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** GST 250

**Credits:** 10

**Lecture:** 3

**Lab:** 20

## **GST 280 - Competition Firearms**

**Description:** Maintenance, assembly and construction of competition firearms.

**Prerequisites:** 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.

**Prerequisites:** GST 192

**Credits:** 3

**Lecture:** 1

**Lab:** 6

## **GST 295A - 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.

**Prerequisites:** Concurrent enrollment in GST 200 or GST 250

**Credits:** 2

**Lecture:** 0

**Lab:** 6

## **GST 295B - 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.

**Prerequisites:** Concurrent enrollment in GST 200 or GST 250

**Credits:** 2

**Lecture:** 0

**Lab:** 6

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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).

**Prerequisites:** CSA 126

**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.

**Prerequisites:** AHS 160/BIO 160 (or BIO 201 and BIO 202 ) and AHS 130 and HIM 110 and AHS 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.

**Prerequisites:** 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.

**Prerequisites:** HIM 110

**Credits:** 2

**Lecture:** 2

## 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.

**Prerequisites:** 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.

**Prerequisites:** AHS 160/BIO 160 (or BIO 201 and BIO 202 ) and AHS 130 and HIM 110 and AHS 240 or hold one of these coding credentials: CCA, CCS, CCS-P, RHIT, RHIA, CPC or CPC-H.

**Credits:** 4

**Lecture:** 4

## 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.

**Prerequisites:** 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

## HVA 100 - Introduction to HVAC I

**Description:** Basic principles of air conditioning, heating and refrigeration. Examination of the structures and function of cooling and air systems. Focus is on skill development in the areas of soldering, brazing and pipe design.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## HVA 110 - Introduction to HVAC II

**Description:** Overview of function, design and installation of duct systems, hot water systems and exhaust systems. Focus on maintenance procedures commonly performed in HVAC servicing work.

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## HVA 215 - Refrigerant Technology I

**Description:** Introduction to the refrigeration system. Includes taking necessary readings and measurements as well as opportunities to use evacuation, refrigerant recovery and refrigerant charging equipment.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 3

## HVA 220 - HVAC Circuits and Motors

**Description:** Overview of electrical motors and control circuits. Emphasis on skill development in diagnostic, circuit diagrams and electrical meter application commonly used in the HVAC industry.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 3

## HVA 225 - Heating Technologies I

**Description:** Overview of heating equipment and service needs. Focus on gas, oil and electrical heating. Fundamentals in installation practices that affect efficiency, performance and equipment life span.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 3

## HVA 230 - HVAC Troubleshooting

**Description:** Problem-solving techniques and methodology using foundational concepts in refrigerant technology, heating technology and electrical circuits. Emphasis on troubleshooting procedures commonly utilized in the HVAC field.

**Credits:** 3  
**Lecture:** 2  
**Lab:** 3

## 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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication; Diversity

**Credits:** 3  
**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **HIS 231 - United States History I**

**HIS 1131.**

**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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **HIS 232 - United States History II**

**HIS 1132.**

**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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **HIS 299 - Independent Study History**

**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.

**Prerequisites:** 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 culture and ethical questions. Application of critical thinking skills to assess issues, identify influencing factors, and make informed decisions.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Critical Thinking

**Credits:** 3

**Lecture:** 3

## **HUM 202 - Introduction to Mythology**

**Description:** Examination of humanist questions through World 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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0



## **HUM 205 - Science, Culture and Technology**

**Description:** Explores the relationships between scientific innovation, new technologies, and human values with a focus on contemporary ethical and social concerns posed by developments in modern science.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Critical Thinking, Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **HUM 241 - Humanities I**

**Description:** Cultural history of global civilization from the Neolithic to the Fourteenth Century. Scholarly examination of the great literature, philosophy, music, visual arts, and architecture achievements of human societies.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **HUM 242 - Humanities II**

**Description:** Cultural history of global civilizations from the Fifteenth to the Twenty First century. Scholarly examination of the great literature, philosophy, music, visual arts, and architectural achievements of human society.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** 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

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **MGT 111 - Leadership & Innovation**

**Description:** Lead, motivate and inspire with leadership techniques to stimulate innovation.

**Credits:** 1  
**Lecture:** 1  
**Lab:** 0

## **MGT 112 - Leadership & Collaboration**

**Description:** Basic techniques to increase team collaboration and strategies on how leaders effectively prioritize their time.

**Credits:** 1  
**Lecture:** 1  
**Lab:** 0

## **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 180 - Business Software and Communications**

**Description:** Professional and essential communication strategies for entrepreneurs. Business application software and the creation of business communications including word processing, spreadsheets, and presentation script graphics.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MGT 183 - Managing Business Finances**

**Description:** Creating and maintaining budgets for a successful business venture. Emphasis on financial planning to guide, track performance and provide data to monitor and adjust business objectives. Includes the development and interpretation of financial statement information to assist in making better financial decisions for positive business operations.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MGT 185 - Finding your Mentor**

**Description:** Provides a formal mentoring and coaching program to work through planning strategies and challenges with operations, sales, marketing, and personnel.

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **MGT 188 - Competitor Differentiation**

**Description:** Skills for entrepreneurs to promote their businesses on social media, and to analyze data for continual optimization of competitor differentiation.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MGT 201 - Leadership Essentials**

**Description:** Leadership of organizations at any level, differences between management and leadership, and practical ways to overcome leadership challenges. Includes critical thinking and effective negotiation tools to motivate a team and apply emotional intelligence. Covers time management strategies to establish a healthy work-life balance.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MGT 202 - Strategic Leadership**

**Description:** Leadership strategies utilizing effective communication tools, productive management teams, balancing resources, increase productivity and establishment of credibility.

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **MGT 203 - Organizational Leadership**

**Description:** Leadership and organizational effectiveness with focus on functions of individuals, organizational design, human motivation and behavior patterns.

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **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.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## **MGT 280 - Marketing Tactics and Techniques**

**Description:** Marketing tactics and techniques entrepreneurs need to successfully market their product or service. Includes relationship marketing pivotal for a customer-driven marketing strategy that will lead to a strong brand and business growth.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MGT 281 - High Performance Management**

**Description:** Attainment of continuous support in hiring the right people, motivating others, establishing expectations, and building relationships with direct reports. Skills to effectively enhance the management of employee performance for successful business achievement.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MGT 283 - Operations Management**

**Description:** Strategies and processes for efficient operational and administrative functions. Skills for business operations to manage vendors, customers, and employees for sustained growth.

**Credits:** 3

**Lecture:** 3

**Lab:** 0



## **MGT 285 - Growing your Business**

**Description:** Skills to develop a growth strategy that mitigates challenges and optimizes opportunities. Proven business theories and strategic tools used to integrate marketing with other key business functions.

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **MGT 288 - Business Plan Development**

**Description:** Guidelines of form and content of a complete and fully developed business plan ready to solicit financing or venture capital. Includes the purpose of a good plan, and how to use it to help capitalize on business opportunities and successfully mitigate challenges.

**Prerequisites:** MGT 183 and MGT 185 and MGT 188 and MGT 280 and MGT 281 and MGT 283 and MGT 285

**Credits:** 3  
**Lecture:** 3  
**Lab:** 0

## **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 200 - SolidWorks for Non-Engineers**

**Description:** Fundamentals of graphical user interfaces for computer-aided drawing, including sketching, computer-aided drafting, and parameter-based modeling. Designed for non-engineering majors.

**Credits:** 3

**Lecture:** 2

**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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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).

**Prerequisites:** 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).

**Prerequisites:** MAT 092 or a satisfactory score on the mathematics skills assessment.

**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.

**Prerequisites:** MAT 082 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MAT 100A - Technical Mathematics A**

**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.

**Prerequisites:** MAT 082 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **MAT 100B - Technical Mathematics B**

**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.

**Prerequisites:** MAT 082 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **MAT 100C - Technical Mathematics C**

**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.

**Prerequisites:** MAT 082 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## **MAT 141 - College Mathematics with Review**

**MAT 1142.**

**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).

**Prerequisites:** Satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **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).

**Prerequisites:** MAT 092 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** MAT 097 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 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.

**Prerequisites:** MAT 141, MAT 142, 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.

**Prerequisites:** MAT 141, MAT 142, 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).

**Prerequisites:** MAT 141, MAT 142, MAT 152 or satisfactory score on mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 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).

**Prerequisites:** MAT 152 or satisfactory score on mathematics skills assessment.

**Credits:** 3

**Lecture:** 3

## **MAT 182 - Precalculus (Algebra)**

**Description:** Topics from college algebra essential to the study of calculus and analytic geometry. Includes functions (linear, quadratic, polynomial, rational, exponential and logarithmic) systems of equations, and matrices. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisites:** MAT 097 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **MAT 183 - Precalculus (Trigonometry)**

**Description:** Trigonometric functions, radian measure, right and oblique triangle solutions, trigonometric identities and equations, and inverse trigonometric functions. Note: Computer use and graphing calculator required (TI-83/84 recommended).

**Prerequisites:** MAT 097 or a satisfactory score on the mathematics skills assessment.

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## **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.

**Prerequisites:** MAT 097 or a satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 5

**Lecture:** 5

## **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).

**Prerequisites:** MAT 152 or satisfactory score on mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 3

## **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).

**Prerequisites:** MAT 187 (or MAT 182 and MAT 183) or satisfactory score on mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 5

**Lecture:** 5

## **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).

**Prerequisites:** MAT 220

**General Education Competency:** Quantitative Literacy

**Credits:** 5

**Lecture:** 5

## **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).

**Prerequisites:** MAT 230

**General Education Competency:** Quantitative Literacy

**Credits:** 4

**Lecture:** 4

## **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.

**Prerequisites:** MAT 241

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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 101A - 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

**Lecture:** 0

**Lab:** 0

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** MUS 107

**Credits:** 1

**Lab:** 2

## **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.)

**Prerequisites:** 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

## **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

## **MUS 113 - Big Band I**

**Description:** Rehearsal and performance of selected intermediate level jazz literature. Audition required. Additional required performances.

**Credits:** 1

**Lab:** 3

## **MUS 114 - Big Band II**

**Description:** Rehearsal and performance of selected advanced level jazz literature. Audition required. Additional required performances.

**Credits:** 1

**Lab:** 3

## **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

## **MUS 117 - Symphony Orchestra**

**Description:** Symphony orchestra rehearsal and performance.

**Credits:** 1

**Lab:** 3

## **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.

**Prerequisites:** 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  
**Lecture:** 0  
**Lab:** 0

## **MUS 151A - Applied Music**

**Description:** Individual instruction in piano, organ, voice, guitar, band or orchestra instruments for music majors.

**Credits:** 2  
**Lecture:** 0  
**Lab:** 0

## **MUS 151B - Applied Music**

**Description:** Individual instruction in piano, organ, voice, guitar, band or orchestra instruments for music majors.

**Credits:** 2

**Lecture:** 0

**Lab:** 0

## **MUS 190 - Oratorio:**

**Description:** Rehearsal and performance of selected choral selections from major choral works.

**Credits:** 1

**Lab:** 3

## **MUS 198 - Music Topics:**

**Description:** Exploration of music techniques and expression.

**Credits:** 1-3

**Lecture:** 1-3

## **MUS 203 - Piano Class III**

**Description:** Designed for students with some piano experience. Emphasis on advanced accompaniment skills.

**Prerequisites:** MUS 104

**Credits:** 1

**Lab:** 3

## **MUS 204 - Piano Class IV**

**Description:** Designed for students with some piano experience. Emphasis on interpretation.

**Prerequisites:** 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

## **MUS 223 - Vocal Ensemble**

**Description:** Rehearsal and performance of selected choral literature. No audition required.

**Credits:** 1

**Lab:** 3

## **MUS 224 - Master Chorale**

**Description:** Rehearsal and performance of selected major choral literature. Membership by audition.

**Credits:** 1

**Lab:** 3

## **MUS 225 - Community Chorale**

**Description:** Rehearsal and performance of selected choral literature. No audition required.

**Credits:** 1

**Lab:** 3

## **MUS 226 - Chamber Choir**

**Description:** Rehearsal and performance of selected choral literature. Membership by audition.

**Credits:** 1

**Lab:** 3

## **MUS 227 - Women's Chorale**

**Description:** Rehearsal and performance of selected choral literature. Audition required.

**Credits:** 1

**Lab:** 3

## **MUS 228 - Gospel Choir**

**Description:** Rehearsal and performance of selected choral literature. Membership open with no audition required.

**Credits:** 1

**Lab:** 3

## **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.

**Prerequisites:** MUS 132

**Credits:** 4

**Lecture:** 4

**Lab:** 1

## **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.

**Prerequisites:** MUS 231

**Credits:** 4  
**Lecture:** 4  
**Lab:** 1

## **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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication

**Credits:** 3  
**Lecture:** 3

## **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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication

**Credits:** 3  
**Lecture:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**Corequisite:** 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

## **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 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.

**Prerequisites:** Admission to nursing program

**Credits:** 8

**Lecture:** 5

**Lab:** 9

## **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.

**Prerequisites:** NSG 131 and BIO 202 and NTR 135

**Credits:** 9

**Lecture:** 5

**Lab:** 12

## **NSG 140 - Nursing Theory I**

**Description:** Introduction to the fundamentals of nursing care for clients with selected alterations in health, utilizing the nursing process as a framework for care. Presents a holistic approach to assessment using QSEN competencies, and /or related nursing concepts. Introduces the competencies of nursing knowledge to include patient-centered care, professionalism, informatics and technology, teamwork and collaboration, safety, quality improvement, and evidence-based practice.

**Prerequisites:** Admission to nursing program

**Corequisite:** NSG 142, NSG 143, NSG 144, and NSG 145

**Credits:** 4

**Lecture:** 4

**Lab:** 0



## NSG 142 - Application of Nursing Theory I

**Description:** An introductory clinical course with application of theoretical concepts of wellness and illness; emphasis on basic nursing skills and application of nursing process in meeting the needs of diverse clients. Clinical practicum occurs in well-defined settings and integrates the competencies of nursing practice to include; patient centered care, professionalism, communication, teamwork and collaboration, safety, quality, informatics and evidence-based practice. Clinical group pre-conference and post-conference discussions occur with application of theoretical concepts.

**Prerequisites:** Admission to nursing program

**Corequisite:** NSG 140, NSG 143, NSG 144, and NSG 145

**Credits:** 2

**Lecture:** 0

**Lab:** 4

## NSG 143 - Development of Nursing Practice I

**Description:** Introduces theory that directs nursing skills and the development of nursing practice. Uses the nursing process as a framework for care and implementation of appropriate nursing interventions. Basic to intermediate nursing skills are developed.

**Prerequisites:** Admission to nursing program

**Corequisite:** NSG 140, NSG 142, NSG 144, and NSG 145

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## NSG 144 - Mental Health Nursing Theory I

**Description:** Introduction to the concepts of psychosocial nursing care for clients throughout the life span. Emphasis on the use of the nursing process to assess and integrate therapeutic communication techniques, learning/teaching, psychosocial, diversity/cultural, spiritual, nutritional, pharmacological, legal and ethical aspects. Introduction to adaptive and maladaptive, psychosocial and physiological responses related to commonly occurring psychological disorders as seen in the various healthcare settings. Integration QSEN competencies of patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics.

**Prerequisites:** Admission to nursing program

**Corequisite:** NSG 140, NSG 142, NSG 143, NSG 145

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## NSG 145 - Pharmacology for Nursing I

**Description:** Introduces principles of pharmacotherapeutics, pharmacodynamics, and pharmacokinetics, including drug actions, utilizing the Quality and Safety Education in Nursing competencies and nursing process to explore pharmacologic aspects of patient care. Examines national standards for safety in pharmacologic therapy. Introduces dosage calculation.

**Prerequisites:** Admission to nursing program

**Corequisite:** NSG 140, NSG 142, NSG 143, NSG 144

**Credits:** 1

**Lecture:** 1

**Lab:** 0

## NSG 150 - Nursing Theory II

**Description:** Concepts of nursing care for clients with commonly occurring alternations in health, utilizing the nursing process to apply and analyze previously learned concepts. In addition to assessment, planning, and nursing diagnosis, with emphasis on implementation. Incorporates a holistic approach to assessment. Integrates the competencies of nursing knowledge to include patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics.

**Prerequisites:** NSG 140, NSG 142, NSG 143, NSG 144, NSG 145

**Corequisite:** NSG 152, NSG 153, NSG 155, BIO 205

**Credits:** 5

**Lecture:** 5

**Lab:** 0

## NSG 152 - Application of Nursing Theory II

**Description:** Beginning clinical experience requiring the integration of previously learned clinical concepts. Applies therapeutic interventions using the nursing process to adapt patient centered care to meet the needs of diverse clients within the healthcare system. Clinical practicum occurs in well-defined settings and integrates the competencies of nursing practice to include patient centered care, informatics, teamwork and collaboration, safety, quality improvement and evidence-based practice.

**Prerequisites:** NSG 140, NSG 142, NSG 143, NSG 144, and NSG 145

**Corequisite:** NSG 150, NSG 153, NSG 155, and BIO 205

**Credits:** 2

**Lecture:** 0

**Lab:** 4

## **NSG 153 - Development of Nursing Practice II**

**Description:** Applies theory that directs nursing skills and the development of nursing practice. Uses the nursing process to apply theory and the implementation of appropriate nursing interventions. Intermediate to advanced nursing skills are developed.

**Prerequisites:** NSG 140, NSG 142, NSG 143, NSG 144, and NSG 145

**Corequisite:** NSG 150, NSG 152, NSG 155, and BIO 205

**Credits:** 2

**Lecture:** 1

**Lab:** 3

## **NSG 155 - Pharmacology for Nursing II**

**Description:** Examination of principles of pharmacotherapeutics, pharmacodynamics, and pharmacokinetic properties of commonly prescribed drugs in each of the major drug classifications. Integrates the Quality and Safety Education in Nursing competencies and nursing process to pharmacologic aspects of effective care for individual clients with complex disease condition along the health/illness continuum. Reinforces national standards for safety in pharmacologic therapy. Introduces complex dosage calculations. In-depth examination of selected medication classifications with patient safety and critical thinking presented.

**Prerequisites:** NSG 140, NSG 142, NSG 143, NSG 144, and NSG 145

**Corequisite:** NSG 150, NSG 152, NSG 153, and BIO 205

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## **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.

**Prerequisites:** NSG 131

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ENG 102 and NSG 132 and PSY 245

**Corequisite:** NSG 233

**Credits:** 7

**Lecture:** 3

**Lab:** 12

## **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.

**Prerequisites:** BIO 205 and NSG 231 and NSG 233

**Corequisite:** NSG 234 and NSG 235

**Credits:** 5

**Lecture:** 2

**Lab:** 9

## **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.

**Prerequisites:** NSG 132

**Corequisite:** NSG 231

**Credits:** 2

**Lecture:** 2

## **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.

**Prerequisites:** NSG 132

**Credits:** 3

**Lecture:** 2

**Lab:** 3

## **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.

**Prerequisites:** NSG 231

**Credits:** 2

**Lecture:** 2

## NSG 240 - Nursing Theory III

**Description:** Concepts of nursing care for clients with commonly occurring alterations in health, utilizing the nursing process to apply and analyze previously learned concepts. In addition to assessment, planning and nursing diagnosis, emphasis is on implementation. Incorporates a holistic approach to assessment of patients. Integrates the competencies of nursing knowledge to include patient-centered care, informatics and technology, teamwork and collaboration, safety, quality improvement and evidence-based practice.

**Prerequisites:** NSG 150, NSG 152, NSG 153, NSG 155, BIO 205

**Corequisite:** NSG 242, NSG 250, NSG 260

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## NSG 242 - Application of Nursing Theory III

**Description:** An **intermediate** clinical course with application of theoretical concepts of wellness and illness; emphasis on nursing skills and application of nursing process in meeting the needs of diverse clients. Clinical practicum occurs in well-defined settings and integrates the competencies of nursing practice to include; patient centered care, professionalism, communication, teamwork and collaboration, safety, quality, informatics and evidence- based practice. Clinical group pre- and post-conference discussions occur with application of theoretical concepts.

**Prerequisites:** NSG 150, NSG 152, NSG 153, NSG 155, and BIO 205

**Corequisite:** NSG 240, NSG 250, and NSG 260

**Credits:** 3

**Lecture:** 0

**Lab:** 6

## NSG 250 - Maternal/Child Nursing Theory

**Description:** Health promotion in the context of the family with a focus on the mother and child. Includes concepts of nursing care for the developing family from preconception to perinatal and postpartum care of the mother and neonate. Encompasses normal and high-risk reproductive issues, women's health, and developmental care of the child from infant through adolescence. Integrates the competencies of nursing knowledge to include patient-centered care, professionalism, leadership, systems-based practice, informatics and technology, communication, teamwork and collaboration, safety, quality improvement, and evidence-based practice.

**Prerequisites:** NSG 150, NSG 152, NSG 153, NSG 155, and BIO 205

**Corequisite:** NSG 240, NSG 242, and NSG 260

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## NSG 260 - Mental Health Nursing Theory II

**Description:** Concepts of nursing care for clients with maladaptive psychosocial and physiological responses related to commonly occurring psychiatric disorders. Emphasis on the use of the nursing process to apply and analyze previously learned concepts related to psychiatric disorders. Integration of competencies of nursing knowledge to include patient centered care, teamwork and collaboration, safety, evidence-based practice, quality management and informatics to provide professional safe care.

**Prerequisites:** NSG 150, NSG 152, NSG 153, NSG 155, BIO 205

**Corequisite:** NSG 240, NSG 242, NSG 250

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## NSG 270 - Nursing Theory IV

**Description:** Applies concepts of nursing care for clients with critical alternations in health. Emphasis is on high-risk and multi-system problems including concepts of acute medical-surgical and critical care nursing. Uses the nursing process to analyze and synthesize previously learned concepts. Integrates the QSEN competencies to include patient-centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics.

**Prerequisites:** NSG 240, NSG 242, NSG 250, NSG 260

**Corequisite:** NSG 272, NSG 280

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## NSG 272 - Application of Nursing Theory IV

**Description:** Analysis and synthesis of theory content to selected patients in acute care settings (including but not limited to critical care, medical/surgical, emergency department, telemetry, obstetrics, and pediatric department/units). Students are paired with a registered nurse preceptor while completing their capstone clinical experience in order to facilitate transition to practice.

**Prerequisites:** NSG 240, NSG 242, NSG 250, NSG 260

**Corequisite:** NSG 270, NSG 280

**Credits:** 4.5

**Lecture:** 0

**Lab:** 9

## NSG 280 - Professional Nursing Concepts

**Description:** Concepts associated with professional comportment and the meaning of the identity of nursing as a profession. Skills and techniques for entering the healthcare profession as a registered nurse. Consideration given to current trends in the job market. Includes career search, employment considerations, and primary aspects of obtaining employment. Techniques to generate a resume and cover letter, and prepare for the interviewing process. Develops interviewing skills. Provides an introduction to principles of management and leadership. Explores competencies necessary to succeed in a nursing leadership role in various healthcare settings. Incorporates and integrates the competencies of nursing knowledge to include patient centered care, teamwork and collaboration, evidence-based practice, quality improvement, safety, and informatics.

**Prerequisites:** NSG 240

**Credits:** 2

**Lecture:** 2

**Lab:** 0

## 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## NSG 299 - Independent Study Nursing

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

## 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.

**Prerequisites:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## **NTR 145 - Food and Culture**

**Description:** Examination of food in the context of culture. Includes historical, religious, and socio-cultural influences on the development of cuisine, meal patterns, eating customs, cooking methods, and nutritional status of various ethnic groups. Evaluation of traditional and contemporary food habits, beliefs and attitudes of global populations; selection, preparation and serving of foods from diverse cultures, and health and social impact of dietary changes. Exploration of the impact of politics, socioeconomics, and conflict on global, regional and local food systems.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** LAW 217

**Credits:** 3

**Lecture:** 3

## **LAW 220 - Civil Procedure 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.

**Prerequisites:** LAW 100

**Credits:** 3

**Lecture:** 3

## **LAW 221 - Civil Procedure II**

**Description:** Study of the civil litigation process. Includes trial preparation, trial, evidence, and appeal.

**Prerequisites:** LAW 220

**Credits:** 3

**Lecture:** 3

## **LAW 230 - Administrative Law**

**Description:** Overview of Administrative Law in general, and in particular how administrative bodies are regulated and function in Arizona. Emphasis placed on the actual representation of clients before such bodies, including procedural and hearing rules.

**Prerequisites:** LAW 100

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## LAW 232 - Evidence

**Description:** The basic rules that govern the admissibility of evidence in civil and criminal trial proceedings. Primary focus on how the Arizona Rules of Evidence operate in practice, with some attention to areas in which the Federal Rules of Evidence differ from the Arizona Rules.

**Prerequisites:** LAW 100

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## LAW 291 - Trial Advocacy

**Description:** Fundamental skills in representing clients in court, both civil and criminal, such as direct and cross examination, introduction of exhibits, impeachment of witnesses, opening statements, and closing arguments. Experiential learning with simulated mock trials will be utilized.

**Prerequisites:** Completion of the Paralegal Degree at Yavapai College, or from an equivalent, accredited institution; or, for those who hold a bachelor's degree, completion of the Paralegal Certificate at Yavapai College, or an equivalent, accredited institution.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## LAW 293 - Legal Paraprofessional

**Description:** An examination of the Legal Paraprofessional designation approved by the AZ Supreme Court, including licensure rules and examination/experiential requirements. The four practice areas ("Endorsements") of Family Law, Civil Practice, Criminal Law, and Administrative Law will be explored in detail. Designed for those who seek to sit for the Legal Paraprofessional exam.

**Prerequisites:** Completion of the Paralegal Degree at Yavapai College, or from an equivalent, accredited institution; or, for those who hold a bachelor's degree, completion of the Paralegal Certificate at Yavapai College, or an equivalent, accredited institution.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## LAW 297 - Substantive Law-Related Apprenticeship

**Description:** This one year apprenticeship under the supervision of an Arizona practicing attorney is for those students that have completed a Paralegal Degree at Yavapai College, or at an equivalent, accredited institution, but lack a bachelor's degree. Successful completion of this apprenticeship is one of the requirements in order to apply for the Legal Paraprofessional designation.

**Prerequisites:** Completion of the Paralegal Degree at Yavapai College, or from an equivalent, accredited institution; or, for those who hold a bachelor's degree, completion of the Paralegal Certificate at Yavapai College, or an equivalent, accredited institution.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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

## 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

## PHI 101 - Introduction to Philosophy

PHI 1101

**Description:** Introduction to questions in the major areas of philosophy, including the nature of reality, knowledge, values, and argumentation. Some questions may include: What is a person? What is the mind? Is there an afterlife? Do we have souls? How do you know that your beliefs are true? Does God exist? How can you determine the right way to live? What is the right way to argue? What is happiness? What is the meaning of life? Includes the history and topics of philosophy, critical thinking and the intellectual tools to study these topics in greater depth.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Diversity Critical Thinking

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PHI 103 - Introduction to Formal Logic

PHI 1103

**Description:** Historical and formal study of logical concepts, with emphasis on problem solving through symbolic manipulation. Examination of meaning, definition, induction, deduction, fallacies, validity, truth, and the structure and classification of arguments. Includes a basic introduction to formal techniques for evaluating deductive arguments and scientific reasoning, including syllogistic, propositional, and predicate logic.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **PHI 105 - Introduction to Ethics**

PHI 1105

**Description:** Examination of the nature of morality and specific moral issues. Questions explored include: What is the foundation of morality? What makes actions either right or wrong? What does it mean to be a good person? What gives life meaning? Why should we try to do the right thing? Topics include: abortion, war, euthanasia, animal rights, happiness, the meaning of life, environmental rights, poverty, sex, feminism, racism, free speech, torture, and the law.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **PHI 110 - Logic and Critical Thinking in the Digital Age**

**Description:** Introductory study of critical thinking and logic, with emphasis on argumentation, rhetoric, and problem-solving. Examination of language, meaning, definition, fallacies, and arguments as they occur in academic and real-world settings (with an emphasis on online communication, media, and digital environments). Application of logic and critical thinking strategies to contemporary issues and practical problem solving.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Diversity, Critical Thinking

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **PHI 122 - Science and Religion**

**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.

**Prerequisites:** Reading Proficiency

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PHI 204 - Medical Ethics

**Description:** Examination of fundamental ethical questions that arise in real situations that health professionals, patients, and community members are likely to face. Students will develop a framework for ethical decision-making in healthcare; learn how to identify relevant ethical principles; and analyze real life ethical dilemmas. Questions asked include: What are the source, meaning, and justification of ethical claims? What kinds of acts are right? How do rules apply to specific situations? What ought to be done in specific situations? Issues that may be discussed include abortion, mental health, human experimentation, treatment refusal, organ transplants, end of life care, euthanasia, and healthcare.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

## PHI 210 - Environmental Ethics

**Description:** The history of environmental ethics and philosophical positions dealing with our moral relationship to the natural world. Examination of these relationships by looking at current ethical theories. Topics may include: animal rights, conservation, economic approaches to the environment, access to natural resources, ecofeminism, ecoracism, environmental justice and pollution, climate change, technology, and activism. Questions students may explore include: How should humans relate to the natural world? Do we have moral obligations toward non-human animals and other parts of nature? What do we owe other human beings, including future generations?

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PHI 215 - Philosophy and Film

**Description:** Introduces philosophical themes through the medium of film. Includes reading classical and contemporary literature in philosophy; viewing films that portray philosophical concepts; and learning to view films through a philosophical lens.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PHI 220 - Happiness and the Meaning of Life

**Description:** Examination of answers to questions about the nature of happiness, including how philosophers have and continue to discuss these issues. Students will consider the relationship between happiness and a meaningful life. Questions explored include: What is happiness or the meaning of life? What is the relationship between happiness, pleasure, and the meaning of life? Can someone tell you how to be happy or how to live meaningfully?

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PHI 233 - Philosophy of Religion: East and West

**Description:** Use of philosophical methods to study religion and religious beliefs from both Eastern and Western perspectives. Some of the questions include: What is religion? What counts as evidence for a religious belief? Can reasoning or experience give good grounds for religious belief? Does faith require philosophically sound reasoning? Is it philosophically justified to believe in miracles? What tools does philosophy provide for examining religious concepts? How can a good God exist if there's so much suffering in the world? How should humans react to suffering? Is there a conflict between religion and science? How can the diversity of religions be explained? Is religion a good thing for humanity?

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PHI 238 - Philosophy and Literature

**Description:** How philosophy and literature work together to illuminate some of the most important issues that humans are likely to face. Issues include: the nature of reality, knowledge, truth, personal identity, ethics, race, gender, justice, love, personal, relationships, and the meaning of life.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PHI 244 - Existentialism

**Description:** The nature of human existence and our abilities to live meaningful and authentic lives. Emphasis on French, German, Danish, and Russian authors who maintain that life has no inherent meaning that humans can discover, but that we must determine meaning for ourselves. Topics may include: the human condition, the meaning of life, death, self-deception, authenticity, integrity and responsibility, guilt and shame, and love and sexuality.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## 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

## 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



## **PHE 100G - Intermediate Yoga**

**Description:** Hatha Yoga to increase strength, flexibility, focusing ability, balance and relaxation.

**Credits:** 1

**Lab:** 2

## **PHE 105 - Fitness Workshop**

**Description:** A group fitness class emphasizing one or more of the following: cardio fitness, resistance training, core/stability and flexibility exercises. S/U grading only.

**Credits:** .5

**Lecture:** 0

**Lab:** 1

## **PHE 107 - Water Fitness Workshop:**

**Description:** A pool-based exercise class using a variety of water equipment for a non-impact full body workout. S/U grading only.

**Credits:** .5

**Lecture:** 0

**Lab:** 1

## **PHE 110A - Stretch and Flex**

**Description:** Flexibility and stretching exercises to improve posture, increase joint flexibility, and reduce stress reactions.

**Credits:** 1

**Lab:** 2

## **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

## **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

## **PHE 110E - Cardio Mix**

**Description:** Aerobic program for all fitness components. Emphasis on cross training activities. S/U grading only.

**Credits:** 1  
**Lecture:** 0  
**Lab:** 2

## **PHE 110F - Insanity**

**Description:** Cardio and plyometric drills with intervals of strength, power, resistance and core training utilizing the Max Interval Training method. S/U grading only.

**Credits:** 1  
**Lecture:** 0  
**Lab:** 2

## **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

## **PHE 110L - Neuromuscular Integrative Action (NIA)**

**Description:** Sensory-based movement practice that blends the dynamic power of the martial arts, the creative expression of the dance arts and the inner awareness of the healing arts.

**Credits:** 1  
**Lab:** 2

## **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

## **PHE 110Q - Zumba**

**Description:** High energy Latin dance inspired exercise utilizing principles of aerobic, interval and resistance training.

**Credits:** 1  
**Lab:** 2

## **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

## **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

## **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

## **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

## **PHE 120C - Swimming Fitness**

**Description:** Swim activities using fitness principles. Emphasis on improving fitness level.

**Credits:** 1

**Lab:** 2

## **PHE 120F - Warm Water Exercise**

**Description:** Water exercise for students with conditions requiring warm water.

**Credits:** 1

**Lab:** 2

## **PHE 130A - Fitness, Machine and Free Weight Training**

**Description:** Introduction to cardiorespiratory fitness, strength training exercises, and flexibility training.

**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

**Lecture:** 0

**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

## **PHE 140G - Tennis**

**Description:** Fundamentals of tennis. Emphasis on basic stroke production, rules and tactics.

**Credits:** 1

**Lab:** 2

## **PHE 140J - Pickleball**

**Description:** Beginning to intermediate rules, skills and strategies for Pickleball, a paddleball sport that combines elements of badminton, table tennis, and tennis. Two or four players use solid paddles made of wood or composite materials to hit a perforated polymer ball over a net.

**Credits:** 1

**Lecture:** 0

**Lab:** 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 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 220E - Competitive Swimming**

**Description:** Fundamentals of competitive swimming. Emphasis on training for competition.

**Credits:** 1

**Lab:** 2

## **PHE 228 - Lifeguard Training**

**Description:** Lifeguarding techniques. Meets American Red Cross standards.

**Credits:** 2

**Lecture:** 1

**Lab:** 2

## **PHE 230B - Advanced Weight Training**

**Description:** Resistive exercises for specific muscles and muscle groups. Emphasis on program design, implementation and evaluation.

**Prerequisites:** PHE 130A or PHE 130P

**Credits:** 1

**Lecture:** 0

**Lab:** 2

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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

## 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.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## 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.

**Prerequisites:** MAT 187. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## 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.

**Prerequisites:** PHY 111. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 4

**Lecture:** 3

**Lab:** 3

## 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.

**Prerequisites:** MAT 220. One year of high school physics or PHY 111/PHY 112 is strongly recommended. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 5

**Lecture:** 4

**Lab:** 3

## **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.

**Prerequisites:** MAT 230 and PHY 150. Reading Proficiency.

**General Education Competency:** Scientific Literacy

**Credits:** 5

**Lecture:** 4

**Lab:** 3

## **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.

**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

## **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.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** PSY 101

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** MAT 142 or MAT 152 or satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 3



## PSY 234 - Child Development

**Description:** Exploration of children's development from conception through middle childhood, assuming a transactional approach to understanding development focusing on family relationships, brain development, and social-emotional development. Risk and protective factors are analyzed with respect to the interplay of attachment, brain development, and social-emotional development. Developmental periods include prenatal, infancy, toddlerhood, preschool years, and middle childhood, with an examination of biological influences, cognition, behavioral characteristics, social interaction, and cultural resources typified at each developmental period. This course is cross-listed with ECE 234.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PSY 240 - Personality Development

**Description:** Typical personality development with emphasis on the analysis of classic and contemporary theories of personality structure and dynamics. Examination of psychological traits and mechanisms with respect to the dispositional, biological, intrapsychic, cognitive-experiential, social and cultural, and adjustment domains.

**Prerequisites:** PSY 101

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## 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.

**Prerequisites:** PSY 101

**Credits:** 3

**Lecture:** 3

## PSY 260 - Child Guidance

**Description:** Relationship-based proactive strategies to promote pro-social development of young children (infants, toddlers, preschoolers, and early elementary children). Special focus on building relationships outside of conflict and sustaining relationships during conflicts, utilizing developmentally effective teaching and guidance approaches, and employing effective teacher-child communication balanced with nurturing guidance and supportive instruction. Particular emphasis on the interplay of attachment and self-regulation, along with a trauma-informed brain-based approach to interventions with persistent and challenging behaviors. This course is cross-listed with ECE 260.

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## PSY 266 - Abnormal Psychology

**Description:** Introduction to psychopathology, the scientific study of mental disorders. Assumes an integrative approach incorporating the contributions of genetic, neuroscience, behavioral, cognitive, emotions, cultural, social, and interpersonal factors in the exploration of the dimensions of psychopathology. Survey of symptoms, classification, prevalence, etiology, and treatment of the DSM-5 mental disorders including anxiety, mood, somatoform, dissociative, eating, sexual dysfunction, personality, schizophrenia, neurodevelopmental, and neurocognitive disorders.

**Prerequisites:** PSY 101.

**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.

**Prerequisites:** ANT 102 or PSY 101 or PSY 245 or SOC 101

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **PSY 290 - Research Methods PSY 2290.**

**Description:** Planning, execution, analysis, and written reporting of psychological research. Surveys the literature, procedures, and instruments in representative areas of psychological research.

**Prerequisites:** 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** Admission to the Radiologic Technology program. Reading Proficiency.

**Corequisite:** RAD 110 and RAD 120 and RAD 170.

**Credits:** 2

**Lecture:** 2

## **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.

**Prerequisites:** Admission to the Radiologic Technology program. Reading Proficiency.

**Corequisite:** RAD 100 and RAD 120 and RAD 170.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **RAD 120 - Radiographic Technique I**

**Description:** Fundamentals of image production, processing, film imaging with related accessories and image analysis based on technical imaging standards.

**Prerequisites:** Admission to the Radiologic Technology program. Reading Proficiency

**Corequisite:** RAD 100 and RAD 110 and RAD 170.

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** RAD 170.

**Corequisite:** RAD 140 and RAD 150 and RAD 160.

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** RAD 170.

**Corequisite:** RAD 135 and RAD 150 and RAD 160.

**Credits:** 4

**Lecture:** 2

**Lab:** 6

## **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.

**Prerequisites:** RAD 170.

**Corequisite:** RAD 135 and RAD 140 and RAD 160.

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** RAD 170.

**Corequisite:** RAD 135 and RAD 140 and RAD 150.

**Credits:** 3

**Lab:** 9

## **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.

**Prerequisites:** Admission to the Radiologic Technology program. Reading Proficiency.

**Corequisite:** RAD 100 and RAD 110 and RAD 120.

**Credits:** 2

**Lecture:** 2

## **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.

**Prerequisites:** RAD 160.

**Credits:** 3

**Lab:** 9

## **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.

**Prerequisites:** RAD 220.

**Credits:** 7

**Lab:** 21

## **RAD 220 - Radiobiology and Radiation Protection**

**Description:** Principles of the interaction of ionizing radiation and biological systems. Includes concepts of radiation protection.

**Prerequisites:** RAD 160.

**Corequisite:** RAD 180.

**Credits:** 3

**Lecture:** 3

## **RAD 230 - Radiology Pharmacology**

**Description:** Basic concepts of radiology pharmacology. Includes techniques of venipuncture and administration of diagnostic contrast agents and intravenous medications.

**Prerequisites:** RAD 200.

**Corequisite:** RAD 240 and RAD 250 and RAD 260.

**Credits:** 1

**Lecture:** 1

## **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.

**Prerequisites:** RAD 200.

**Corequisite:** RAD 230 and RAD 250 and RAD 260.

**Credits:** 3

**Lab:** 9

## **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.

**Prerequisites:** RAD 200.

**Corequisite:** RAD 230 and RAD 240 and RAD 260.

**Credits:** 2

**Lecture:** 2

## **RAD 260 - Advanced Imaging Systems**

**Description:** Overview of the various fields of medical imaging with a focus on Computed Tomography.

**Prerequisites:** RAD 200.

**Corequisite:** RAD 230 and RAD 240 and RAD 250.

**Credits:** 3

**Lecture:** 3

## **RAD 270 - Radiology Registry Review**

**Description:** Review of standard subject materials in preparation for the American Registry of Radiologic Technologists (ARRT) Examination.

**Prerequisites:** RAD 260.

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** Prerequisite: RAD 260.

**Credits:** 3

**Lab:** 9

## **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 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



## 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

## 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

## 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:** 1

**Lab:** 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

## REL 101 - Introduction to World Religions

**Description:** Introduction to the history of religious traditions of the world, including Buddhism, Christianity, Hinduism, Islam, Judaism, Confucianism, Daoism, as well as indigenous traditions. Exploration of the diversity of religions and religious experiences across the globe. Essential features of each tradition and how different religions have responded to basic human needs, including the cultural contexts in which they developed.

**Prerequisites:** Reading Proficiency.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## REL 200 - Asian Mysticism

**Description:** Fundamental theories of Indian, Chinese, and Japanese metaphysics, epistemology, ethics, and aesthetics. Exploration of the mystical traditions and spiritual practices of yoga and meditation in the Asian traditions, including Hinduism, Buddhism, Confucianism, and Taoism.

**Prerequisites:** ENG 101 or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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).

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## REL 205 - Life, Sex, and Death

**Description:** Development of the vocabulary and conceptual frameworks for thinking and discussing life, sex, and death, arguably the most significant and misunderstood aspects of human experience, by looking to religion, philosophy, film, anthropology, and literature. Examination of the ways that humans have understood the transformative experiences of birth, sexual maturity, death, and the passing of generations as discussed by the world traditions.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency. Due to the course's subject matter, students must be at least 18 years of age to take course.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## REL 273 - Judaism

**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.

**Prerequisites:** ENG 101 or ENG 101A or ENG 103. Reading Proficiency.

**General Education Competency:** Written Communication; Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## SOC 140 - Sociology of Relationships and Family

**Description:** Examination of macro and micro factors affecting relationships and families. Exploration of elements of diversity (gender, race/ethnicity, social class, education, culture, age cohort), relationship issues (communication, role expectations, conflict, dissolution, violence), family challenges (work/family balance, parenting, child care, stress, role conflict), and success strategies.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## 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.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **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.

**Prerequisites:** ANT 102 or PSY 101 or PSY 245 or SOC 101.

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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.

**Prerequisites:** MAT 142 or MAT 152 or satisfactory score on the mathematics skills assessment.

**General Education Competency:** Quantitative Literacy

**Credits:** 3

**Lecture:** 3

## **SOC 250 - Social Problems**

SOC 2250.

**Description:** A sociological exploration of selected social problems. Emphasis on social issues.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** Reading Proficiency

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **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.

**Prerequisites:** SPA 101 or SPA 132 or placement exam.

**Credits:** 4

**Lecture:** 4

**Lab:** 0

## **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.

**Prerequisites:** 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.

**Prerequisites:** SPA 102. Reading Proficiency.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

## **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 Spanish-speaking world.

**Prerequisites:** SPA 102 or placement exam. Reading Proficiency.

**General Education Competency:** Diversity

**Credits:** 4

**Lecture:** 4

## **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.

**Prerequisites:** SPA 201 or placement exam. Reading Proficiency.

**General Education Competency:** Diversity

**Credits:** 4

**Lecture:** 4

## **SPA 245 - Hispanic Heritage in the Southwest: Culture and Language**

**Description:** A panorama of Hispanic heritage in the Southwestern U.S. Encompasses an analysis of society, culture, language, tradition, and their contributions to the development of the rich diversity of the Southwestern region.

**General Education Competency:** Diversity

**Credits:** 3

**Lecture:** 3

**Lab:** 0

## **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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **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.

**Prerequisites:** Reading Proficiency.

**Credits:** 3

**Lecture:** 3

## STU 296 - Internship: Student 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## 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.

**Prerequisites:** 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.

**Prerequisites:** THR 133

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **THR 135 - Introduction to the Theater THE 1100.**

**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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## **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 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 160 - Lighting for Stage and Media**

**Description:** Introduction to the principles of lighting design for the theater and television and implementation of those designs. Emphasis on color grading, mood changes based on color, development of stage picture and how to light all angles of the subject in order to create a depth of field for the audience. Topics include an introduction to consoles and console development, design, and implementation. Current industry products will be used such as consoles, follow spots, MA3D-On PC, Vision, and Vectorworks may be used to enhance learning.

**Credits:** 3  
**Lecture:** 1  
**Lab:** 4

## **THR 161 - Sound Design for Stage and Media**

**Description:** Introduction to the concept and implementation of sound design for different types of theatres (inside, outside, small, large), and different film locations. Topics include how to train one's ears to mix various shows, gain an understanding of signal flow, what speakers sound like, and recalling show practices using an analog mixer. Focus on sound instruments/boards, as well as in-ear technology, and the diverse types of microphones will be included.

**Credits:** 3  
**Lecture:** 1  
**Lab:** 4

## **THR 162 - Stagecraft Rigging and Safety**

**Description:** Introduction to stage rigging safety protocols with training in rigging hardware including knots, ground rigging, hoists, trusses, and standard theater rigging procedures.

**Credits:** 3  
**Lecture:** 1  
**Lab:** 4

## **THR 163 - Costuming, Hair, and Make-Up**

**Description:** Introduction to the concepts of designing, creating, and implementing costuming, hair, and make-up for creating characters, real or fictional, for theatrical performances and productions.

**Credits:** 3  
**Lecture:** 1  
**Lab:** 4

## **THR 164 - Theater Set and Props Building**

**Description:** Introduction to hand skills and basic tools used for set and large props building, assembly and finishing techniques; applied to design principles. Guidance and hands-on experience using tools and measuring.

**Credits:** 3  
**Lecture:** 1  
**Lab:** 4

## **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:** 2  
**Lab:** 2

## **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.

**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.

**Prerequisites:** THR 132

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## 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.

**Prerequisites:** ENG 101 or ENG 103

**General Education Competency:** Written Communication

**Credits:** 3

**Lecture:** 3

## 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## THR 299 - Independent Study Theater

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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

**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.

**Prerequisites:** VGD 121 (May be taken concurrently).

**Credits:** 3

**Lecture:** 3

## VGD 151 - 3D Modeling and Animation

**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, creation of environments, and the configuration of rendering engines.

**Prerequisites:** N/A

**Corequisite:** N/A

**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.

**Prerequisites:** VGD 151.

**Credits:** 3  
**Lecture:** 3

## **VGD 171 - Video Game Development - Programming**

**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.

**Prerequisites:** N/A

**Corequisite:** N/A

**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.

**Prerequisites:** VGD 171 (May be taken concurrently).

**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.

**Prerequisites:** 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.

**Prerequisites:** VGD 122

**Credits:** 3

**Lecture:** 3

## **VGD 251 - Advanced 3D Modeling and Animation**

**Description:** Modeling and animation skills with emphasis on advanced character modeling and animation techniques and the use of specialized surfacing tools and techniques.

**Prerequisites:** VGD 151

**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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**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

## **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:** 2

**Lab:** 2

## **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.

**Prerequisites:** VEN 100 (May be taken concurrently).

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **VEN 103 - 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.

**Prerequisites:** VEN 100 (May be taken concurrently)

**Credits:** 4

**Lecture:** 3

**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 varieties, 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 and spring practicum as well as VEN 195ES in the summer. Must be 21 years of age or older to enroll. [Repeatable for a total of 4 credit hours toward degree/certificate requirements.]

**Prerequisites:** VEN 200 (May be taken concurrently).

**Credits:** 2

**Lab:** 4

## VEN 195ES - Winemaking Practicum Summer

**Description:** Practical experience in winemaking while working at an approved winery and receiving supervision from a professional vintner. Students must complete this summer practicum as well as VEN 195E in both fall and spring. Must be 21 years of age or older to enroll.

**Prerequisites:** VEN 200 (May be taken concurrently).

**Credits:** 2

**Lecture:** 0

**Lab:** 4

## VEN 195V - Viticulture Practicum

**Description:** Practical experience in vineyard operations partnering with an approved vineyard, Students must complete a fall and spring practicum as well as VEN 195VS in the summer. [Repeatable for a total of 4 credit hours toward degree/certificate requirements.]

**Prerequisites:** VEN 100 (may be taken concurrently).

**Credits:** 2

**Lecture:** 0

**Lab:** 4

## **VEN 195VS - Viticulture Practicum Summer**

**Description:** Practical experience in vineyard operations partnering with an approved vineyard, Students must complete this summer practicum as well as VEN 195V in both fall and spring.

**Prerequisites:** VEN 100 (may be taken concurrently).

**Credits:** 2

**Lecture:** 0

**Lab:** 4

## **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.

**Prerequisites:** 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.

**Prerequisites:** VEN 201.

**Credits:** 3

**Lecture:** 2

**Lab:** 2

## **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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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.

**Prerequisites:** 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. [Repeatable for a total of 6 credit hours toward degree/certificate requirements.] S/U grading only.

**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

## **WLD 299 - Independent Study Welding**

**Description:** Supervised special project in this field of study. Approval of supervising Division Dean is required.

**Credits:** 1-6

# Emeriti Directory

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## Faculty Emeriti

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AINSA, SERGE, *Modern Languages* (1974-2007)  
BARKHURST, RODNEY, *Chemistry* (1981-2000)  
BARTELS, DIETER, *Social Sciences/Humanities* (1978-2011)  
BENNETT, JAMIE, *Geography* (1992-2007)  
BREILING, ROY, *Music* (1995-2014)  
CATON, GERALD, *Accounting & Computer Science* (1988-2010)  
CHANDA, VIRGINIA "GINNY", *English* (1979-2006)  
DeCECCO, CYNTHIA, *Art* (2000-2018)  
DICKEY, ARCHIE, *Biology* (1974-1998)  
DWAN, DIANA, *Math* (1987-2015)  
ELLIS, CARLEEN, *Nursing* (1976-1991)  
EWING, PAUL, *History/Philosophy* (1989-2017)  
FISHER, WILLARD, *Music* (1964-2011)  
FUEMMELER, GENNIE, *Teacher Education/Reading* (1996-2010)  
GLIDDEN, MOSES, *English* (1993-2011)  
GOLDEN, BARRY, *Biology/Chemistry* (1984 -2003)  
GOVEDICH, STEPHEN, *Psychology/Sociology* (1981-2003)  
HAMMOND, CAROL, *English* (1987-2010)  
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)  
MASON, STEPHEN, *Art* (2001-2019)  
MERRITT, MARILYNN "LYNN", *Health, Physical Education & Recreation* (1969-1994)  
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)  
RAWLINGS, DONN, *English* (1985-2001)  
REISDORFER, KATHRYN, *Humanities* (1993-2009)  
ROBERTS, DEBORAH, *Liberal Studies/History* (2002-2019)  
ROBERTS, W. BRENT, *Mathematics* (1987-2013)  
SCHUMACHER, THOMAS, *Art* (1984-2020)  
SHERRILL, CLIFF, *Computer Science* (1982-2013)  
SIEH, DON, *English/Construction* (1971-1996)  
TRAVER, ROY, *Art* (2001-2014)  
VERBOUT, MARY, *English* (1991-2016)

## **Other Emeriti**

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HORTON, JAMES, *College President* (2005-2011)

PHILLIPS, JEAN, *YC Foundation Volunteer*

RUSSO, JOSEPH, *College President* (1974-1984)

## **Deceased Emeriti**

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BAMRICK, MARY ANNE, *Business* (1969 -1979), *Campus Dean* (1979-1992), *Interim College President* (1992-1993)

BRANSON, EDWARD, *Art* (1969-2000)

BRONANDER, ROY, *Biology* (1971-1995)

BURNS, JAMES, *Music* (1969-1983)

FARRAR, ELAINE, *Art* (1973-1992)

GALDE, DOROTHY ALTA, *English* (1969-1979)

GRASER, DAVID, *Mathematics* (1998-2020)

HAYNES, JOHN, *English* (1969-1995)

MIKULEWICZ, ROBERT, *Journalism* (1969-1981)

QUINTERO, GEORGE, *Registrar* (1969-1983)

ROBERTS, RUSS, *Business & Computer Science* (1982-2013)

SIEGFRIED, KARL, *Mathematics* (2004-2020)



## 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 a class to their class schedule for a particular semester.

**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 AGECEC, 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. An associate degree 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 may 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 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 do not appear on the student's 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 for 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 the course within the allotted time.

**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 semesters. 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. Yavapai College Official transcripts can be requested at [www.yc.edu/transcripts](http://www.yc.edu/transcripts) or from the Office of the Registrar. Students can view their 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

**Withdraw** - 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.

## Referenced Information

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### Professional Licensure Disclosure

Yavapai College offers several programs leading to professional licensure or certification in Arizona. If you are considering a licensure program, it's essential for you to understand if the program meets the requirements in the state you are planning to reside and work. Please visit <http://www.yc.edu/stateauthorization> and <http://www.yc.edu/generaldisclosure> for additional information.

### Basics of Professional Licensure

States can vary in the professions they require to be licensed and how licensure is acquired. Licensure may require one or more of the following:

- graduate from an approved program
- additional conditions unrelated to educational prerequisites which may include meeting certification requirements of a national organization, specific training, or passage of an exam.

Licensure and certification requirements are set by agencies, not controlled by or affiliated with Yavapai College. These requirements and state laws, regulations, and policies can change at any time.

### Additional information and suggestions regarding professional licensure

- Review the [Professional Licensure by State](#) document to begin your search to verify if the program you're interested in meets the educational requirements for licensing/certification in your home state (or the state where you intend to practice).
- Students should review the specific academic requirements for the program in which they plan to enroll, including pre-qualifications for licensure. Yavapai College recommends that students contact the program lead or director with professional licensure/certification questions before enrolling in the program.
- It is the student's responsibility to check with the licensing entity in their state of residence, or in the state in which they intend to obtain a license, before beginning a licensure program and for the most up-to-date information and requirements.
- Relocating to another state while enrolled in a licensure program may impact your ability to remain in the program and/or meet the state licensure or certification requirements.
- If you have questions regarding any program not listed on the [Professional Licensure by State](#) document, please contact the program lead or director. Many degree programs do not involve professional licensure or certification.

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### What is a rolling strategic plan?

A rolling approach to planning provides the institution with an opportunity to be flexible and responsive to the dynamic local, national, and global environment. The planning process will involve continuous evaluation of the strategic priorities progress towards achieving YC's Mission and Ends, while simultaneously taking account of changes in our environment.

The rolling planning approach will enable YC to revise and develop our strategic direction, where necessary, while maintaining a focus on our Mission, Vision, and Values. This approach will enable the College to be responsive to emerging opportunities, and alert to uncertainty in our environment, needs, and opportunities.



## AGEC-Other Requirements (AGEC-S)

Select 2 other courses based on your major from the following list:

- BIO 181 - General Biology I **Credits: 4**
- BIO 182 - General Biology II **Credits: 4**
- BIO 201 - Human Anatomy and Physiology I **Credits: 4**
- BIO 202 - Human Anatomy and Physiology II **Credits: 4**
- BIO 205 - Microbiology **Credits: 4**
- 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**
- CHM 236 - General Organic Chemistry II **Credits: 4**  
**AND** CHM 236L - General Organic Chemistry II Lab **Credits: 1**
- 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**
- MAT 230 - Calculus and Analytic Geometry II **Credits: 5**
- MAT 241 - Calculus III **Credits: 4**
- MAT 262 - Elementary Differential Equations **Credits: 3**
- 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:** *It is always best to discuss educational and career goals with an academic advisor prior to enrolling in any courses.* Learn more about Academic Advising.

## Arts and Humanities (AAEE)

Select from the following courses to fulfill the requirements of the Arts & Humanities component of this degree.

- ART 112 - Two-Dimensional Design **Credits: 3**
- ART 113 - Three-Dimensional Design **Credits: 3**
- 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 210 - Introduction to Rhetoric **Credits: 3** IWR 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 GIH
- ENG 230 - Introduction to Literature **Credits: 3** IWR
- ENG 237 - Women in Literature **Credits: 3** IWR ERG GIH
- ENG 240 - American Literature to 1865 **Credits: 3** IWR ERG
- ENG 241 - American Literature 1865 to Present **Credits: 3** IWR ERG GIH
- ENG 242 - Introduction to Shakespeare **Credits: 3** IWR ERG GIH
- ENG 298 - Special Topics in Literature **Credits: 3** IWR
- HUM 101 - Introduction to Popular Culture **Credits: 3**
- HUM 202 - Introduction to Mythology **Credits: 3** IWR ERG GIH
- HUM 205 - Science, Culture and Technology **Credits: 3**
- HUM 236 - American Arts and Ideas **Credits: 3** IWR ERG
- HUM 241 - Humanities I **Credits: 3** ERG GIH
- HUM 242 - Humanities II **Credits: 3** ERG GIH
- 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** ERG GIH
- PHI 103 - Introduction to Formal Logic **Credits: 3** GIH
- PHI 105 - Introduction to Ethics **Credits: 3** ERG GIH
- PHI 110 - Logic and Critical Thinking in the Digital Age **Credits: 3** ERG GIH
- PHI 122 - Science and Religion **Credits: 3** ERG GIH
- PHI 204 - Medical Ethics **Credits: 3** IWR ERG GIH
- PHI 210 - Environmental Ethics **Credits: 3** IWR ERG GIH
- PHI 215 - Philosophy and Film **Credits: 3** IWR ERG GIH
- PHI 220 - Happiness and the Meaning of Life **Credits: 3** IWR ERG GIH
- PHI 233 - Philosophy of Religion: East and West **Credits: 3** IWR ERG GIH
- PHI 238 - Philosophy and Literature **Credits: 3** IWR ERG GIH
- PHI 244 - Existentialism **Credits: 3** IWR ERG GIH
- REL 101 - Introduction to World Religions **Credits: 3** ERG GIH
- REL 200 - Asian Mysticism **Credits: 3** IWR ERG GIH

- REL 203 - Native Religions of the World **Credits: 3** <sup>IWR ERG GIH</sup>
- REL 205 - Life, Sex, and Death <sup>IWR ERG GIH</sup>
- REL 273 - Judaism **Credits: 3** <sup>IWR ERG GIH</sup>
- SPA 135 - Introduction to Spanish Literature **Credits: 3** <sup>ERG GIH</sup>
- SPA 201 - Intermediate Spanish I **Credits: 4** <sup>ERG GIH</sup>
- SPA 202 - Intermediate Spanish II **Credits: 4** <sup>ERG GIH</sup>
- SPA 245 - Hispanic Heritage in the Southwest: Culture and Language **Credits: 3** <sup>ERG GIH</sup>
- THR 135 - Introduction to the Theater **Credits: 3**
- THR 250 - American Cinema **Credits: 3** <sup>IWR</sup>

**Note:**

<sup>IWR</sup>= This course meets the requirements of the Intensive Writing and Critical Inquiry component.

<sup>ERG</sup> = This course meets the requirements of the Ethnic/Race/Gender/Class awareness area.

<sup>GIH</sup> = This course meets the requirements of the Global/International or Historical awareness area.

## Arts and Humanities (AAFA)

Choose Option 1, 2 or 3 based on your Fine Arts Concentration.

- **Option 1 - Art Concentration**
  - ART 200 - Art History I **Credits: 3** IWR ERG GIH
  - ART 201 - Art History II **Credits: 3** IWR ERG GIH
- **Option 2 - Music Concentration**
  - MUS 240 - Music Appreciation **Credits: 3** IWR
  - MUS 245 - Music of World Cultures **Credits: 3** IWR
- **Option 3 - Performing Arts Concentration**
  - THR 135 - Introduction to the Theater **Credits: 3**
  - **AND** choose one course from the following options:
    - ART 112 - Two-Dimensional Design **Credits: 3**
    - ART 113 - Three-Dimensional Design **Credits: 3**
    - 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 210 - Introduction to Rhetoric **Credits: 3** IWR 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 GIH
    - ENG 230 - Introduction to Literature **Credits: 3** IWR
    - ENG 237 - Women in Literature **Credits: 3** IWR ERG GIH
    - ENG 240 - American Literature to 1865 **Credits: 3** IWR ERG
    - ENG 241 - American Literature 1865 to Present **Credits: 3** IWR ERG GIH
    - ENG 242 - Introduction to Shakespeare **Credits: 3** IWR ERG GIH
    - ENG 298 - Special Topics in Literature **Credits: 3** IWR
    - 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
    - HUM 101 - Introduction to Popular Culture **Credits: 3**
    - HUM 202 - Introduction to Mythology **Credits: 3** IWR ERG GIH
    - HUM 205 - Science, Culture and Technology **Credits: 3**
    - HUM 236 - American Arts and Ideas **Credits: 3** IWR ERG
    - HUM 241 - Humanities I **Credits: 3** ERG GIH
    - HUM 242 - Humanities II **Credits: 3** ERG GIH
    - 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** ERG GIH

- PHI 103 - Introduction to Formal Logic **Credits: 3** GIH
- PHI 105 - Introduction to Ethics **Credits: 3** ERG GIH
- PHI 110 - Logic and Critical Thinking in the Digital Age **Credits: 3** ERG GIH
- PHI 122 - Science and Religion **Credits: 3** ERG GIH
- PHI 204 - Medical Ethics **Credits: 3** IWR ERG GIH
- PHI 210 - Environmental Ethics **Credits: 3** IWR ERG GIH
- PHI 215 - Philosophy and Film **Credits: 3** IWR ERG GIH
- PHI 220 - Happiness and the Meaning of Life **Credits: 3** IWR ERG GIH
- PHI 233 - Philosophy of Religion: East and West **Credits: 3** IWR ERG GIH
- PHI 238 - Philosophy and Literature **Credits: 3** IWR ERG GIH
- PHI 244 - Existentialism **Credits: 3** IWR ERG GIH
- REL 101 - Introduction to World Religions **Credits: 3** ERG GIH
- REL 200 - Asian Mysticism **Credits: 3** IWR ERG GIH
- REL 203 - Native Religions of the World **Credits: 3** IWR ERG GIH
- REL 205 - Life, Sex, and Death IWR ERG GIH
- REL 273 - Judaism **Credits: 3** IWR ERG GIH
- 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
- SPA 245 - Hispanic Heritage in the Southwest: Culture and Language **Credits: 3** ERG GIH

## Note:

IWR= This course meets the requirements of the Intensive Writing and Critical Inquiry component.

ERG = This course meets the requirements of the Ethnic/Race/Gender/Class awareness area.

GIH = This course meets the requirements of the Global/International or Historical awareness area.

## Arts and Humanities (AAS)

Select from the following courses to fulfill the requirements of the Arts & Humanities component of this degree.

- ART 112 - Two-Dimensional Design **Credits: 3**
- ART 113 - Three-Dimensional Design **Credits: 3**
- ART 200 - Art History I **Credits: 3**
- ART 201 - Art History II **Credits: 3**
- ART 202 - History of Modern and Contemporary Art **Credits: 3**
- ENG 210 - Introduction to Rhetoric **Credits: 3**
- ENG 211 - British Literature: Beginning to 18th Century **Credits: 3**
- ENG 212 - British Literature 1798 to Present **Credits: 3**
- ENG 217 - Major Issues in World Literature **Credits: 3**
- ENG 230 - Introduction to Literature **Credits: 3**
- ENG 237 - Women in Literature **Credits: 3**
- ENG 240 - American Literature to 1865 **Credits: 3**
- ENG 241 - American Literature 1865 to Present **Credits: 3**
- ENG 242 - Introduction to Shakespeare **Credits: 3**
- ENG 298 - Special Topics in Literature **Credits: 3**
- HIS 201 - Western Civilization I **Credits: 3**
- HIS 205 - World History **Credits: 3**
- HIS 231 - United States History I **Credits: 3**
- HIS 232 - United States History II **Credits: 3**
- HUM 101 - Introduction to Popular Culture **Credits: 3**
- HUM 202 - Introduction to Mythology **Credits: 3**
- HUM 205 - Science, Culture and Technology **Credits: 3**
- HUM 236 - American Arts and Ideas **Credits: 3**
- HUM 241 - Humanities I **Credits: 3**
- HUM 242 - Humanities II **Credits: 3**
- HUM 243 - History of Film **Credits: 3**
- HUM 248 - Introduction to Folklore **Credits: 3**
- HUM 250 - American Cinema **Credits: 3**
- HUM 260 - Intercultural Perspectives **Credits: 3**
- MUS 240 - Music Appreciation **Credits: 3**
- MUS 245 - Music of World Cultures **Credits: 3**
- PHI 101 - Introduction to Philosophy **Credits: 3**
- PHI 103 - Introduction to Formal Logic **Credits: 3**
- PHI 105 - Introduction to Ethics **Credits: 3**
- PHI 110 - Logic and Critical Thinking in the Digital Age **Credits: 3**
- PHI 122 - Science and Religion **Credits: 3**
- PHI 204 - Medical Ethics **Credits: 3**
- PHI 210 - Environmental Ethics **Credits: 3**
- PHI 215 - Philosophy and Film **Credits: 3**
- PHI 220 - Happiness and the Meaning of Life **Credits: 3**
- PHI 233 - Philosophy of Religion: East and West **Credits: 3**

- PHI 238 - Philosophy and Literature **Credits: 3**
- PHI 244 - Existentialism **Credits: 3**
- REL 101 - Introduction to World Religions **Credits: 3**
- REL 200 - Asian Mysticism **Credits: 3**
- REL 203 - Native Religions of the World **Credits: 3**
- REL 205 - Life, Sex, and Death **Credits: 3**
- REL 273 - Judaism **Credits: 3**
- SPA 135 - Introduction to Spanish Literature **Credits: 3**
- SPA 201 - Intermediate Spanish I **Credits: 4**
- SPA 202 - Intermediate Spanish II **Credits: 4**
- SPA 245 - Hispanic Heritage in the Southwest: Culture and Language **Credits: 3**
- THR 135 - Introduction to the Theater **Credits: 3**
- THR 250 - American Cinema **Credits: 3**

## College Composition or Applied Communication (AAS)

Select from the following options to fulfill the requirements of the College Composition or Applied Communication category.

### Complete Option 1 or 2:

- Option 1 - Complete 6 credits in Writing.
- Option 2 - Complete 3 credits in Writing and 3 credits in Communication.

### Writing (3-6 credits)

- CRW 139 - Introduction to Creative Writing **Credits: 3**
- ENG 101 - College Composition I **Credits: 3**
- ENG 101A - College Composition I with Writing Skills Review **Credits: 4**
- ENG 102 - College Composition II **Credits: 3**
- ENG 103 - College Composition I Honors **Credits: 3**
- ENG 104 - College Composition II Honors **Credits: 3**
- ENG 136 - Technical Writing **Credits: 3**

### Communication (3 credits)

- COM 100 - Introduction to Human Communication **Credits: 3**
- COM 131 - Fundamentals of Speech Communication **Credits: 3**
- COM 134 - Interpersonal Communication **Credits: 3**
- COM 135 - Workplace Communication Skills **Credits: 3**
- COM 200 - Communication Theory **Credits: 3**
- COM 271 - Small Group Communication **Credits: 3**
- MGT 233 - Business Communication **Credits: 3**

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## First-Year Composition

- ENG 101 College Composition I **Credits: 3**
- OR ENG 101A - College Composition I with Writing Skills Review **Credits: 3**
- **OR** ENG 103 College Composition I Honors **Credits: 3**

### AND

- ENG 102 College Composition II **Credits: 3**
- **OR** ENG 104 College Composition II Honors **Credits: 3**



## Mathematics (AGEC)

Select from the following courses to fulfill the requirements of the Mathematics category.

- MAT 141 - College Mathematics with Review **Credits: 4**
  - MAT 142 - College Mathematics **Credits: 3**
  - MAT 152 - College Algebra **Credits: 3**
  - MAT 167 - Elementary Statistics **Credits: 3**
  - MAT 182 - Precalculus (Algebra) **Credits: 3**
  - MAT 187 - Precalculus **Credits: 5**
  - MAT 212 - Topics in Calculus **Credits: 3**
  - MAT 220 - Calculus and Analytic Geometry I **Credits: 5**
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## Mathematics (AGEC-B, AB)

Select from the following courses to fulfill the requirements of the Mathematics component of this degree.

- MAT 212 - Topics in Calculus **Credits: 3**
  - MAT 220 - Calculus and Analytic Geometry I **Credits: 5**
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## Mathematics (AAS – AGS)

Select from the following courses to fulfill the requirements of the Mathematics category.

- MAT 100 - Technical Mathematics **Credits: 3**
  - MAT 141 - College Mathematics with Review **Credits: 4**
  - MAT 142 - College Mathematics **Credits: 3**
  - MAT 152 - College Algebra **Credits: 3**
  - MAT 167 - Elementary Statistics **Credits: 3**
  - MAT 182 - Precalculus (Algebra) **Credits: 3**
  - MAT 187 - Precalculus **Credits: 5**
  - MAT 212 - Topics in Calculus **Credits: 3**
  - MAT 220 - Calculus and Analytic Geometry I **Credits: 5**
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## Mathematics (CSA)

Select from the following courses to fulfill the requirements of the Mathematics component of this degree.

- MAT 152 - College Algebra **Credits: 3**
- MAT 167 - Elementary Statistics **Credits: 3**
- MAT 182 - Precalculus (Algebra) **Credits: 3**
- MAT 187 - Precalculus **Credits: 5**
- MAT 212 - Topics in Calculus **Credits: 3**
- MAT 220 - Calculus and Analytic Geometry I **Credits: 5**

## Mathematics (Med Asst, Med Office Asst)

Select from the following courses to fulfill the requirements of the Mathematics component of this degree.

- MAT 100 - Technical Mathematics **Credits: 3**
- MAT 141 - College Mathematics with Review **Credits: 4**
- MAT 142 - College Mathematics **Credits: 3**
- MAT 152 - College Algebra **Credits: 3**
- MAT 156 - Mathematics for Elementary Teachers I **Credits: 3**
- MAT 157 - Mathematics for Elementary Teachers II **Credits: 3**
- MAT 167 - Elementary Statistics **Credits: 3**
- MAT 172 - Finite Mathematics **Credits: 3**
- MAT 182 - Precalculus (Algebra) **Credits: 3**
- MAT 183 - Precalculus (Trigonometry) **Credits: 2**
- MAT 187 - Precalculus **Credits: 5**
- MAT 212 - Topics in Calculus **Credits: 3**
- MAT 220 - Calculus and Analytic Geometry I **Credits: 5**
- MAT 230 - Calculus and Analytic Geometry II **Credits: 5**
- MAT 241 - Calculus III **Credits: 4**
- MAT 262 - Elementary Differential Equations **Credits: 3**

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## Mathematics (Rad Tech)

Select from the following courses to fulfill the requirements of the Mathematics component of this degree.

- MAT 152 - College Algebra **Credits: 3**
- MAT 182 - Precalculus (Algebra) **Credits: 3**
- MAT 187 - Precalculus **Credits: 5**
- MAT 212 - Topics in Calculus **Credits: 3**
- MAT 220 - Calculus and Analytic Geometry I **Credits: 5**

## Social and Behavioral Sciences (AAEE)

Select from the following courses to fulfill the requirements of the Social and Behavioral Sciences component of this degree.

- AJS 123 - Ethics and Criminal Justice **Credits: 3**
- ANT 101 - Stones, Bones, and Human Origins **Credits: 3**
- ANT 102 - Introduction to Cultural Anthropology **Credits: 3** <sup>ERG GIH</sup>
- ANT 104 - Buried Cities and Lost Tribes **Credits: 3** <sup>GIH</sup>
- ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective **Credits: 3** <sup>GIH</sup>
- ANT 231 - Southwestern Archeology **Credits: 3**
- ANT 232 - Indians of the Southwest **Credits: 3** <sup>ERG</sup>
- ECN 110 - Economics of Sports **Credits: 3** <sup>ERG</sup>
- ECN 235 - Principles of Economics-Macro **Credits: 3**
- EXW 152 - Personal Health and Wellness **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>
- GEO 210 - Society and Environment **Credits: 3**
- NTR 145 - Food and Culture **Credits: 3** <sup>GIH</sup>
- SOC 101 - Introduction to Sociology **Credits: 3** <sup>ERG</sup>
- SOC 140 - Sociology of 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 220 - Introduction to Social Work **Credits: 3**
- SOC 230 - Introduction to Statistics in the Social and Behavioral Sciences **Credits: 3**
- SOC 250 - Social Problems **Credits: 3** <sup>ERG</sup>

### Note:

<sup>IWR</sup> = This course meets the requirements of the Intensive Writing and Critical Inquiry component.

<sup>ERG</sup> = This course meets the requirements of the Ethnic/Race/Gender/Class awareness area.

<sup>GIH</sup> = This course meets the requirements of the Global/International or Historical awareness area.

## Social and Behavioral Sciences (AAS)

Select from the following courses to fulfill the requirements of the Social and Behavioral Sciences component of this degree.

- AJS 123 - Ethics and Criminal Justice **Credits: 3**
- ANT 101 - Stones, Bones, and Human Origins **Credits: 3**
- ANT 102 - Introduction to Cultural Anthropology **Credits: 3**
- ANT 104 - Buried Cities and Lost Tribes **Credits: 3**
- ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective **Credits: 3**
- ANT 231 - Southwestern Archeology **Credits: 3**
- ANT 232 - Indians of the Southwest **Credits: 3**
- ECE 210 - Infant and Toddler Development **Credits: 3**
- ECE 234 - Child Development **Credits: 3**
- ECN 110 - Economics of Sports **Credits: 3**
- ECN 235 - Principles of Economics-Macro **Credits: 3**
- EDU 210 - Cultural Diversity in Education **Credits: 3**
- EXW 152 - Personal Health and Wellness **Credits: 3**
- GEO 101 - World Geography West **Credits: 3**
- GEO 102 - World Geography East **Credits: 3**
- GEO 105 - Introduction to Cultural Geography **Credits: 3**
- GEO 210 - Society and Environment **Credits: 3**
- NTR 145 - Food and Culture **Credits: 3**
- PSY 101 - Introductory Psychology **Credits: 3**
- PSY 230 - Introduction to Statistics in the Social and Behavioral Sciences. **Credits: 3**
- PSY 234 - Child Development **Credits: 3**
- PSY 245 - Human Growth and Development **Credits: 3**
- PSY 277 - Human Sexuality **Credits: 3**
- SOC 101 - Introduction to Sociology **Credits: 3**
- SOC 140 - Sociology of Relationships and Family **Credits: 3**
- SOC 142 - Race and Ethnic Relations **Credits: 3**
- SOC 212 - Gender and Society **Credits:3**
- SOC 220 - Introduction to Social Work **Credits:3**
- SOC 230 - Introduction to Statistics in the Social and Behavioral Sciences **Credits: 3**
- SOC 250 - Social Problems **Credits: 3**

## Social and Behavioral Sciences (AJS AAS)

Select from the following courses to fulfill the requirements of the Social and Behavioral Sciences component of this degree.

- ANT 101 - Stones, Bones, and Human Origins **Credits: 3**
- ANT 102 - Introduction to Cultural Anthropology **Credits: 3**
- ANT 104 - Buried Cities and Lost Tribes **Credits: 3**
- ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective **Credits: 3**
- ANT 231 - Southwestern Archeology **Credits: 3**
- ANT 232 - Indians of the Southwest **Credits: 3**
- ECE 210 - Infant and Toddler Development **Credits: 3**
- ECE 234 - Child Development **Credits: 3**
- ECN 110 - Economics of Sports **Credits: 3**
- ECN 235 - Principles of Economics-Macro **Credits: 3**
- EDU 210 - Cultural Diversity in Education **Credits: 3**
- EXW 152 - Personal Health and Wellness **Credits: 3**
- GEO 101 - World Geography West **Credits: 3**
- GEO 102 - World Geography East **Credits: 3**
- GEO 105 - Introduction to Cultural Geography **Credits: 3**
- GEO 210 - Society and Environment **Credits: 3**
- NTR 145 - Food and Culture **Credits: 3**
- PSY 101 - Introductory Psychology **Credits: 3**
- PSY 230 - Introduction to Statistics in the Social and Behavioral Sciences. **Credits: 3**
- PSY 234 - Child Development **Credits: 3**
- PSY 245 - Human Growth and Development **Credits: 3**
- PSY 277 - Human Sexuality **Credits: 3**
- SOC 101 - Introduction to Sociology **Credits: 3**
- SOC 140 - Sociology of Relationships and Family **Credits: 3**
- SOC 142 - Race and Ethnic Relations **Credits: 3**
- SOC 212 - Gender and Society **Credits:3**
- SOC 220 - Introduction to Social Work **Credits:3**
- SOC 230 - Introduction to Statistics in the Social and Behavioral Sciences **Credits: 3**
- SOC 250 - Social Problems **Credits: 3**

## Social and Behavioral Sciences (ECE AAS)

Select from the following courses to fulfill the requirements of the Social and Behavioral Sciences component of this degree.

- AJS 123 - Ethics and Criminal Justice **Credits: 3**
- ANT 101 - Stones, Bones, and Human Origins **Credits: 3**
- ANT 102 - Introduction to Cultural Anthropology **Credits: 3**
- ANT 104 - Buried Cities and Lost Tribes **Credits: 3**
- ANT 214 - Magic, Witchcraft and Healing: The Supernatural in Cross-Cultural Perspective **Credits: 3**
- ANT 231 - Southwestern Archeology **Credits: 3**
- ANT 232 - Indians of the Southwest **Credits: 3**
- ECN 110 - Economics of Sports **Credits: 3**
- ECN 235 - Principles of Economics-Macro **Credits: 3**
- EDU 210 - Cultural Diversity in Education **Credits: 3**
- EXW 152 - Personal Health and Wellness **Credits: 3**
- GEO 101 - World Geography West **Credits: 3**
- GEO 102 - World Geography East **Credits: 3**
- GEO 105 - Introduction to Cultural Geography **Credits: 3**
- GEO 210 - Society and Environment **Credits: 3**
- NTR 145 - Food and Culture **Credits: 3**
- PSY 101 - Introductory Psychology **Credits: 3**
- PSY 230 - Introduction to Statistics in the Social and Behavioral Sciences. **Credits: 3**
- PSY 245 - Human Growth and Development **Credits: 3**
- PSY 277 - Human Sexuality **Credits: 3**
- SOC 101 - Introduction to Sociology **Credits: 3**
- SOC 140 - Sociology of Relationships and Family **Credits: 3**
- SOC 142 - Race and Ethnic Relations **Credits: 3**
- SOC 212 - Gender and Society **Credits:3**
- SOC 220 - Introduction to Social Work **Credits: 3**
- SOC 230 - Introduction to Statistics in the Social and Behavioral Sciences **Credits: 3**
- SOC 250 - Social Problems **Credits: 3**

## Physical and Biological Sciences (AGEC-S, AS)

Complete one of the following two-course sequences appropriate to your major.

- BIO 181 - General Biology I **Credits: 4**
- **AND** BIO 182 - General Biology II **Credits: 4**

OR

- CHM 151 - General Chemistry I **Credits: 5**
- **AND** CHM 152 - General Chemistry II **Credits: 5**

OR

- GLG 101 - Introduction to Geology I **Credits: 4**
- **AND** GLG 102 - Introduction to Geology II **Credits: 4**

OR

- PHY 111 - General Physics I **Credits: 4**
- **AND** PHY 112 - General Physics II **Credits: 4**

OR

- PHY 150 - Physics for Scientists and Engineers I **Credits: 5**
- **AND** PHY 151 - Physics for Scientists and Engineers II **Credits: 5**