

# COCONINO COMMUNITY COLLEGE



# CATALOG

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*Opening Spring*

*Semester 2002*

Coconino Community College reserves the right to make changes to the published catalog, including additions and/or modifications of College policy and procedures, academic program requirements, and other regulations affecting students. Refer to the College's Web site at [www.coco.cc.az.us](http://www.coco.cc.az.us) for current information.



## ACADEMIC CALENDAR 2001-2002

### FALL 2001 (AUGUST 9, 2001 - DECEMBER 15, 2001)

Pre-session	August 9-24
Fall Instruction Begins	August 27
Labor Day Holiday - College Closed	September 3
Deadline to Drop Without Record	September 24
Veteran's Day Holiday - College Closed	November 12
Deadline for Student Initiated Withdrawal	November 21
Thanksgiving Holiday - College Closed	November 22-23
Last Day of Instruction	December 8
Final Examination Period	December 10-15
Winter Break - College Closed	December 21-31

### SPRING 2002 (JANUARY 14, 2002 - MAY 11, 2002)

New Years Day Holiday (Observed) - College Closed	January 1
Instruction Begins	January 14
Martin Luther King Holiday - College Closed	January 21
President's Day Holiday - College Closed	February 18
Deadline to Drop Without Record	February 27
Spring Break - Flagstaff - No Classes	March 10-16
Spring Break - Page - No Classes	March 17-23
Deadline for Student Initiated Withdrawal	April 19
Last Day of Instruction	May 4
Final Examination Period	May 6-11
Commencement	May 10
May Mini-Session	May 13- 31
Memorial Day Holiday - College Closed	May 27

### SUMMER I - 2002 (JUNE 4, 2002 - JULY 5, 2002)

Instruction Begins	June 4
Deadline to Drop Without Record	June 10
Deadline for Student Initiated Withdrawal	June 20
July 4th Holiday - College Closed	July 4
Last Day of Instruction	July 5

### SUMMER II - 2002 (JULY 8, 2002 - AUGUST 7, 2002)

Instruction Begins	July 8
Deadline to Drop Without Record	July 15
Deadline for Student Initiated Withdrawal	July 24
Last Day of Instruction	August 7

### SUMMER IA - 2002 (JUNE 4, 2002 - AUGUST 7, 2002)

Instruction Begins	June 4
Deadline to Drop Without Record	June 27
July 4th Holiday - College Closed	July 4
Deadline for Student Initiated Withdrawal	July 24
Last Day of Instruction	August 7

Note – Detailed calendars including registration dates and information may be found in each semester's Schedule of Classes. The College reserves the right to make changes to the calendar without notice.

Mid-semester exams are at the option of individual instructors.



Nathaniel "Nat" White  
Board Chair  
Flagstaff, Arizona  
District 1



Daniel Baertlein  
Board Secretary  
Williams, Arizona  
District 3



Val Gleave  
Page, Arizona  
District 5



Carole Mandino  
Flagstaff, Arizona  
District 2



Paul Neuman  
Flagstaff, Arizona  
District 4

# District Governing Board

# State Board



Mike Clifton  
Coconino County  
Representative to the  
State Board of  
Directors for  
Community Colleges  
of Arizona

## Workforce Training Programs

The College provides customized courses and workshops which are devoted to meet the workforce development needs of individual firms or industry clusters. These courses are offered at the College or at the employers' place of business. Courses are delivered using traditional and computer-based instructional methods. CCC has provided on-site training at major employers in Coconino County including Ralston Purina Company, W.L. Gore & Associates, Salt River Project/ Navajo Generating Station, New England Business Service, and Navajo Army Depot. In addition many other public and private sector firms enrolled their employees in specially-designed course offerings at CCC.

# Vision and Mission

**Vision:** Coconino Community College is northern Arizona's premier learner-centered community for pursuing your dreams of success.

**Mission:** Coconino Community College provides personalized and accessible opportunities in higher education by offering transfer, career and technical programs, and community interest courses.

**Planning Focus:** To support and promote workforce development efforts by providing the necessary occupational/technical programs and services.

# Purposes

Coconino Community College has identified the following purposes to achieve its mission:

- ◆ **Economic Development:** to respond quickly in the advancement of regional economic development goals through curriculum development and skills training.
- ◆ **Technology Integration:** to provide state-of-the-art technological education and training opportunities for the student body and the community.
- ◆ **Transfer Education:** to provide students with the curriculum necessary to transfer to baccalaureate-granting institutions.
- ◆ **Occupational Education:** to provide students with the skills and knowledge necessary to pursue their occupational careers and/or life goals.
- ◆ **General Education:** to provide students in all degree programs with a core of learning opportunities in reading, writing, quantitative and critical thinking, which provide a solid foundation for lifelong learning and success in academic, career and life goals.
- ◆ **Continuing Education:** to provide students and constituencies who are not directly served by the college's arts and sciences and occupational/professional technologies divisions with learning opportunities.
- ◆ **Developmental Education:** to provide the curriculum necessary to prepare students for college-level course work and the workplace.
- ◆ **Student Services:** to facilitate access to the college and support students' attainments of educational goals.
- ◆ **Cultural and Community Service:** to develop and provide activities and programs that celebrate and preserve cultural diversity and awareness, encourage volunteer service, support community awareness, protect public welfare, and support fine and performing arts.

# Values Statement

Coconino Community College commits its human, physical, and financial resources to accomplishing its mission and purposes by promoting teaching and learning excellence in all its endeavors. Toward this end the College:

- ◆ Places the learner first;
- ◆ Emphasizes life-long learning;
- ◆ Offers a variety of educational delivery modes;
- ◆ Responds to the needs of the communities it serves;
- ◆ Engages in partnerships and collaborations within a multicultural world to provide innovative educational opportunities for its students;
- ◆ Promotes the principles of quality improvement and assessment of student learning;
- ◆ Supports an environment in which employees experience high levels of job satisfaction; and
- ◆ Conducts all its activities in an open, ethical, and responsible manner.

# Strategic Goals

- ◆ **Creating a Learner-Centered College:** to enhance and promote student success by developing and implementing a continuous quality improvement process which (a) demonstrates the extent to which the college will accomplish its mission/purposes through assessment of measurable outcomes; and (b) results in program and institutional improvement through the college's planning processes.
- ◆ **Expanding Learner Access:** to develop and implement a sustainable and effective district-wide instructional delivery system via technology, innovation, and creativity.
- ◆ **Advancing Regional Economic Development:** to collaborate with area businesses, K-12 schools, post-secondary institutions and government agencies in the development of a well-trained workforce.
- ◆ **Strategic Enrollment Management:** to optimize district enrollment through timely, cost-effective, and responsive planning and operations.
- ◆ **Building Learning Environments:** to meet learner and community needs by providing effective construction management and operations of district-wide facilities.
- ◆ **Developing Exceptional Human Resources:** to attract and retain exceptional employees and create a healthy and dynamic work environment.
- ◆ **Strengthening Community Relations:** to build and strengthen relationships with constituencies to make CCC a college of choice.
- ◆ **Advancing External Resources:** to advance the image of the college so that private and public sectors are eager to invest in CCC's future.

*"By attending CCC*

*I have learned time  
management skills,  
study skills,  
improved my  
computer skills  
greatly, and  
interacted with a  
wide variety  
of people"*

*— Kimberly*

*Graves,  
General studies  
Major*



**Foundation Officers**

Susan Casebeer  
*President*

Patrick Hurley  
*Past President*

Alice Ferris  
*Vice President*

LaVelle McCoy  
*Secretary*

Margaret Roush-Meier  
*Treasurer*



Foundation Officers: Susan Casebeer, president and Patrick Hurley, past president.

# Coconino Community College Foundation

The mission of the  
foundation is to promote  
the purpose and goals of  
Coconino Community  
College to enhance  
the opportunities for  
Coconino County  
residents.

The Coconino County Community College Foundation, Inc. was founded in 1993 under Arizona law as a non-profit corporation. It is fiscally and organizationally separate from the college with its own Board of Directors. Its purpose is to receive private gifts, bequests, and donations; to account for, manage, and help appreciate monies or property submitted to the Foundation; and to help the college with projects and opportunities which may not be funded by public funds.

Funds for the Foundation are distributed to benefit and advance Coconino Community College and for the encouragement and subsidization of the students and faculty of CCC.

The Foundation Board of Directors is composed of selected residents of Coconino County who represent positive leadership and community influence and have expressed an interest and desire to use their influence on behalf of the college through the Foundation.

The Foundation is prepared to support programs and activities of the college which promote the objectives of the institution. Foundation activities and support include, but

are not limited to, scholarships and financial aid for students, recognition of outstanding scholarship or leadership, recognition for cost savings suggestions, development of special facilities, awards for special achievement, management and investment of funds, support of the college library, procurement of special equipment, planning for special college activities and programs, and development of area-wide interest in support of the college.

Gifts to the Foundation may be made in several ways and may usually be arranged to simultaneously achieve maximum tax benefits for the donor and provide generous support for education.

Contributions may be made by gifts of cash, real or personal property, securities, provision of a will, gifts of insurance policies, or the establishment of trusts. Gifts may be awarded for specific purposes or given without restrictions.

The Coconino County Community College Foundation, Inc. supports quality education through excellence, achievement and commitment.



*"My successes at CCC have  
encouraged me and  
given me the confidence  
for future success.  
Never stop learning."*

*—Elaine Hale, Special  
Education/Elementary  
Education Major*

# Support Services & College Compliances



## Northern Arizona University Educational Opportunity Center (EOC)

The Educational Opportunity Center is a program organized by Northern Arizona University that provides information about colleges, universities, and vocational/technical schools in Arizona and other states in the US. You can also get assistance with applying for admissions, financial aid, scholarship applications, and career exploration.

## Student Activities and Campus Life

The Student Activities and Campus Life program at CCC provides an environment in which students and student organizations are afforded opportunities and are offered assistance to: participate in co-curricular activities; participate in campus governance; develop leadership abilities; learn about varied cultures and experiences, ideas and issues, art and musical forms and styles of life. For more information contact Student Development Services.

# Support Services

## Student Orientation

Student Orientation covers information about all support services the College has to offer: financial aid, registration, advising, student activities and campus life, tips on how to be successful in college and many more. If you are new to the College or are thinking about attending CCC, please come to a student orientation session. Meet other new students like you and learn more about the College. An orientation is usually scheduled the week before the beginning of every semester. Check the college schedule or contact Student Development Services for the exact time and date of student orientation.

## Advising

Whether you are still exploring your career goals or if you already know your educational

plan, advising is important. CCC Advisors are trained to assist you with focusing on your career goals, developing educational plans, and determining the transferability of courses and programs.

There are two types of advising:

### 1. Registration Advising

This walk-in advising takes place during registration. This short-term advising is intended to help you work out a schedule for the current semester only. You should still see an Advisor to work on your long-term educational plan. This registration advising should not, and cannot, take the place of program advising.

### 2. Program Advising

The goal of program advising is to assist you in developing and following an educational plan (degree, certificate, transfer). During program advising, you and the Advisor will discuss your career goal, review the classes you have taken and create a plan that will best suit your interests. Program advising takes place by appointment only. Contact Student Development Services to schedule an appointment for program advising.

## CAREER EXPLORATION AND EDUCATIONAL PLANNING

Are you undecided about your major? Are you unsure about your career goals? Are you interested in different professions but don't know which one to pursue? Or, are you completely undecided about what you might want to do in the future? Based on your interests and situation, you can talk to professionally trained Advisors regarding your educational plan and/or career goals. Choose whichever option below is most suitable for you:

### 1. Career Development and Counseling

If you are considering completing a degree or certificate at CCC and do not plan to transfer to a 4-year university, you can discuss your educational and career options with a Vocational Advisor. Or, if you are thinking about transferring to a 4-year university in the following areas: Administration of Justice, Business Administration, Hotel and Restaurant Management, or Vocational Technology Education, you can also develop your educational plan with a Vocational Advisor.

### 2. Academic Advising

If you are planning to transfer to a 4-year university but are undecided about your major, you can discuss your educational options with an Academic Advisor.

Clarify your short and long-term goals and work on an educational plan with your Advisor. Contact Student Development Services to make an appointment.

## CAREER SERVICES AND PLACEMENT ASSISTANCE (CS & PA)

Employment opportunities provide a major source of financial assistance for CCC students while in school. They also contribute to developing lifetime skills that will assist the student in a successful career after completion of their educational goal. The CS & PA Office provides employment assistance services for all CCC students (both current and former), program completers, and graduates.

Job openings, both full and part-time, are listed on our Resume Exchange web site at <http://coco.jobdirect.com>. Posting lists are also available in the CS & PA Office. This includes positions with community employers and student positions at CCC for the Federal Work Study program.

Whether you want to explore career options, develop a quality resume, enhance employment search skills or find employment the CS & PA Office is here to assist you in reaching your goal. For more information you may visit our web site at <http://www.coco.cc.az.us/~ses/> or stop by the office located in the Main Administration Offices of the Flagstaff campus. The office phone extension is 314.

## Learning Enhancement Center

As a CCC student you can get help for your classes at the LEC. Learning assistants are available to help you with study skills, math, science, accounting, paper writing, presentations, and modern languages such as Navajo, Spanish and American Sign Language. Our purpose is to help you learn how to learn.

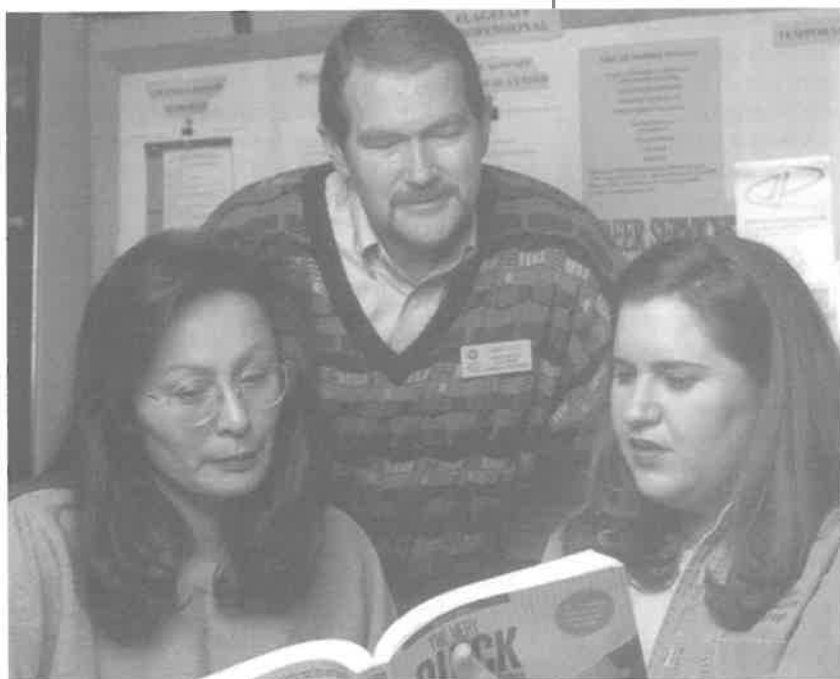
Friendly staff will guide and challenge you as you work on your assignments. We will also help you use the many resources or books, videos, software programs and technology that are available in the LEC and IRC. We hope you will learn when and how to use these resources on your own. We encourage you to work with other students to solve problems and study class materials. We even have a conference room you can reserve for group study! If your study group needs tips on how to work together effectively, we offer those too. Finally, learning assistants are here to help you with the things you have already heard about from your instructors. We aim to complement their teaching.

Please come see us in the LEC. We are here to help you.

## Information Resources Center (IRC) and Multimedia Equipment

The Information Resources and Multimedia Service Center (IR/MM Services Center) provides services that are in a traditional library, as well as those unique to Coconino Community College. The mission of the Center is to provide CCC users access to needed resources. This includes information in electronic formats, as well as in print. One-on-one and small group assistance is available from librarians and instructional assistants. The IR/MMS Center offers in-class instruction, as well as computerized workshops on research and topics relating to specific courses.

Reserve materials are materials placed by CCC faculty in the IR/MM Services Center for student use. Because of the high demand, reserve materials are restricted for use in the Center only. Selected information may be available for overnight checkout. Multimedia services are also available for student use on-campus and must be reserved three days in advance. Training is available from the friendly IR/MM Services Center staff. We welcome the opportunity to help you be successful here at CCC.



The IR/MM Services Center, Cline Library, Grand Canyon Library, Lowell Observatory, Museum of Northern Arizona, Page Public Library, United States Geological Services, and the Williams Public Library support CCC students' research needs at Coconino Community College. Please contact the IR/MM Coordinator about your research needs off-campus.

Students will receive a notice if material is not returned to the IR/MM Center. Coconino Community College may deny enrollment, official transcripts, degrees, and/or certificates to students with outstanding obligations to the College relating to fees, college equipment or materials, or any other obligation. Failure to respond to notifications regarding outstanding obligations may result in the withholding of student records and involuntary withdrawal from the College.

## Disability Resource Services

If you have a disability and need accommodations to obtain equal access to CCC curriculum and activities, contact Disability Resource Services. All students who require accommodations to access classroom instruction and campus wide activities at the College must contact the Disability Resource Coordinator at least eight weeks before classes or the activity begins. Not doing so may result in receiving delayed and/or limited services.

## Computer Lab

The Computer Lab is available to all CCC students. You may use lab equipment for computer assignments, writing papers, internet research, checking e-mail accounts and other course-related activities. You may also take on-line courses, view skill-building workshops and use instructional software in the lab. Internet and e-mail access time is free for CCC students. A lab assistant is always available to provide you with assistance in your course work.

## Phi Theta Kappa

Phi Theta Kappa International Honor Society was founded for community colleges in 1918. Since that time it has become the largest and one of the most prestigious honor societies in higher education. The organization recognizes and encourages scholarship by providing the opportunity for the development of leadership and service, an intellectual climate for exchange of ideas and ideals, lively fellowship for scholars, and stimulation of interest in continuing academic excellence.

Membership in Phi Theta Kappa Honor Society will open new doors for your academic journey. Membership is based primarily on academic achievement. You must have a grade point average of 3.5 or higher after completing at least 12 academic credits at 100-level course work or above. To continue membership you must maintain a GPA of 3.0 or higher per semester. For more information, contact the Phi Theta Kappa Faculty Advisor or visit the College's Web site at [www.coco.cc.az.us](http://www.coco.cc.az.us).

Phi Theta Kappa participates with the American Association of Community Colleges and USA Today in the Academic All-USA Team Program, a competition to select the most outstanding students in the nation's community, technical, and junior colleges. For more information, contact the Dean for Student Services.

## Financial Aid and Scholarships

CCC offers a variety of financial aid and scholarships to full- and part-time students. Financial aid options include the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (FSEOG), Federal Work Study (FWS), and Leveraging Educational Assistance Partnership (LEAP). These are need-based programs, and in order to receive funding, financial need must be shown. Veteran's benefits are also available for eligible students.

**CCC does not offer any federal loan programs (Federal Direct, Federal Perkins, Federal Stafford Loans, Parent PLUS).**

We also have various scholarships available every year. Applications are usually accepted from January 2 to mid-March for the following academic year. Depending on the sponsor of the organization providing the scholarship, your application is reviewed based on need, academic achievement, and/or your community involvement in various areas. We are also approved to train students under government educational programs for veterans and eligible dependents of deceased or disabled veterans. Please contact Financial Aid and Veterans Services for more information and applications on financial aid, scholarships and veterans assistance.

## Community Service Program

The Community Service Program has been developed to provide you and other community members the opportunity to become more aware of community service needs, share your unique skills with the community, while gaining experience to improve your career options. The program is primarily a volunteer experience but there is some funding from the Title IV Federal Work Study Program if you qualify for federal assistance. This program is part of the Federal Work Study program administered by Financial Aid Services. For further information, please contact the Career Services and Placement Assistance Office located by the CCC Main Receptionist area on the Flagstaff Campus or call 520-527-1222 extension 314 for more information.

## Passages Program

A passage is defined as the process of moving from one stage or place to another. We are here to guide you through the process of beginning or returning to college and succeeding in school. Our services include:

- ◆ Financial assistance with tuition, books, childcare and transportation
- ◆ Academic Advising
- ◆ Crisis intervention and referral to community resources
- ◆ Career development and goal setting
- ◆ Textbook loan
- ◆ Learning/Working for Success workshops
- ◆ Peer mentoring and support

If you are a single parent, displaced homemaker, dislocated worker or re-entry student and are interested in vocational programs, call 527-1222 or 1-800-350-7122 for more information.

## Bookstore

Students may purchase textbooks and supplies from the College Store located on the Flagstaff campus. For students at the Page campus, textbook sales are conducted on site the first week of school each semester. Students may also choose to order textbooks over the phone by calling our toll free number 1-888-671-2665, or by visiting our Web site at [www.thecollegestore.com/nau](http://www.thecollegestore.com/nau). This site services CCC as well as NAU. Shipping is free for all textbooks ordered by phone or at our Web site. Contact the College Store at 520-526-0306 or 1-888-671-2665 for more information.

## Campus Security

Coconino Community College is responsible for maintaining a professional and safe environment, conducive to educational pursuits throughout its district. In its commitment to the provision of a secure environment, procedures are established through review of the College Safety and Security Committee regarding dissemination of accurate and timely information concerning individual safety and security in compliance with related federal and state regulations. Security on locations where CCC classes are held is available during regularly scheduled classes and lab hours. A Campus Security Report is also available from CCC and may be accessed at the college Web site: <http://www.coco.cc.az.us/stuinfo/securityrpt>. For further information on safety tips, emergencies, or reporting assistance, contact the College Receptionist.



## Coconino County Tech Prep

— *Get a Jump on Your Future!*

If you can answer yes to any of these questions, you may **ALREADY** have a jump start on college with Tech Prep credit:

- ◆ Are you a Tech Prep student?
- ◆ Did you graduate from a high school in Coconino County within the last two years?
- ◆ Have you completed a Tech Prep articulated vocational program in high school?

If you have completed one of these programs in high school you may be eligible for college credit to be applied toward a degree or certificate program at CCC.

Before you sign up for a vocational course at CCC, contact the Vocational Counselor at 527-1222 ext. 316. You may not need to repeat what you have already learned in high school.

For more information contact the Tech Prep Coordinator at 527-1222 ext. 329, or go to the Tech Prep web page: [www.coco.cc.az.us/techprep/](http://www.coco.cc.az.us/techprep/)

### Coconino Community College offers Tech Prep Programs in:

Accounting  
Building Trades  
Business  
Computer Information Systems  
Drafting/Computer-Aided Drafting  
Hospitality  
Office Information Systems  
Marketing  
Nursing/Allied Health  
Welding



### Distance Learning

A variety of on-line courses are available directly from CCC and via the Arizona Learning Systems (ALS). The College and ALS also offer classes via video-conferencing and satellite to sites in Flagstaff, Grand Canyon, Page and Williams. For more information and current course offerings please refer to the CCC Distance Learning Web site: [www.coco.cc.az.us/extended/](http://www.coco.cc.az.us/extended/), or contact the CCC Extended Learning Department at 520-527-1222 ext. 354 (or 800-350-7122 ext. 354).

### Arizona Learning Systems (ALS)

Arizona Learning Systems (ALS) is an alliance of Arizona's urban and rural community colleges whose purpose is to provide statewide learner-centered education environments that are supported by a strong technological backbone. See Distance Learning for details.

### Non-Credit Courses/Continuing Education Programs

Non-credit short-term courses and workshops are offered throughout the year. These courses are designed to meet the learning needs of a wide variety of students. For example, we offer computer courses in using word processing applications, spreadsheets, and databases. You are not required to meet the same criteria that are expected of the regular credit-bearing courses to enroll in these programs. Registration is a simplified process, and college credit is not available. For additional information about these programs call the Community Education Coordinator at 520-527-1222, ext. 244.



Watch for

Tech Prep Course

Programs throughout  
the catalog.

### Internships

CCC is committed to providing learning opportunities and leadership experience for interns when it is of mutual benefit to the College and the interns. Interns must meet the minimum qualifications for a position. For more information contact the Human Resources Office.

# Small Business Development Center (SBDC)

*Helping Coconino County Businesses  
Maximize Their Successes*

Has this ever crossed your mind, "What a great idea for a new business! I wonder how to get started?" Or, maybe you already run your own business. "Seems like I'm doing OK but I wonder how I can be more profitable. How can I get more customers?"

If you are an entrepreneur or considering self-employment, these and similar questions can be answered by the staff of CCC's Small Business Development Center. The SBDC is a partnership between CCC and the US Small Business Administration (SBA). SBDCs were established by Congress in 1980 and are currently located in over 900 community colleges and universities nationwide. The CCC SBDC provides direct counseling, pertinent business management training, and up-to-date information resources to the Coconino County business community. No-cost, confidential counseling services focus on a variety of business management issues including business planning, financial management/analysis, marketing strategies, international trade, and funding sources. Perhaps the best counseling service the SBDC offers is an objective third-party perspective to help clients identify and solve problems, as well as determine realistic priorities and goals. In 2000 the SBDC provided professional guidance and advice to nearly 500 clients countywide. Business owners in the outlying communities are not required to travel to Flagstaff for assistance; SBDC staff visit Williams, Page, Sedona and Tuba City on a regular basis.

In cooperation with the CCC Division of Occupational/Professional Education, the SBDC offers an array of business development courses and seminars. Participants are able to earn college credit for some of the courses.

## Topics include:

- ◆ Minding Your Own Business (a business start-up workshop)
- ◆ QuickBooks in Your Business
- ◆ Understanding Financial Statements
- ◆ Your Marketing Plan
- ◆ The Anatomy of a Business Plan

The SBDC maintains a comprehensive information resource library of publications, videotapes, audio-tapes, CD-ROMs, and software. Most of the non-computer resources are reprinted (within copyright limitations) or loaned to clients at no cost. For clients who are exploring the business opportunities of the world wide web, the staff also provides "test drives" on the Information Superhighway.

The SBDC is located at the east end of CCC's Flagstaff campus. Feel free to stop by anytime or call 520-526-5072 (Flagstaff and Williams) or 800-350-7122 extension 353 (elsewhere in Coconino County).

## Workforce Training Programs

The College provides customized courses and workshops which are devoted to meet the workforce development needs of individual firms or industry clusters. These courses are offered at the College or at the employers' place of business. Courses are delivered using traditional and computer-based instructional methods. CCC has provided on-site training for major employers in Coconino County including Ralston Purina Company, W.L. Gore & Associates, Salt River Project/Navajo Generating Station, New England Business Service, and Navajo Army Depot. In addition, many other public and private sector firms enrolled their employees in specially-designed course offerings at CCC.

The computer-based courses use PLATO as the instructional medium. The PLATO Learning System is computer-managed instructional courseware that provides learners with knowledge that spans a wide range of subject areas. Each course is targeted to specific competencies and skill levels.

Subjects and topics include many of the necessary basic skills: communications (reading, writing, and presentations), mathematics, science (biology, chemistry, and physics), social and behavioral sciences (economics, geography, history, political science). In addition, PLATO provides instruction in life skills (job and parenting skills), technical skills (blueprint reading,



industrial electronics, hydraulic and pneumatic power fundamentals), and health, safety and environmental training. Moreover, PLATO contains courses that are specifically designed to enhance workplace performance: quality fundamentals, writing in the workplace, and data management skills.

The College is also an authorized service center for ACT WorkKeys®. WorkKeys is a comprehensive assessment system that tests skills in problem solving, communication and teamwork. It also identifies the skill levels needed to do specific jobs. In many communities WorkKeys has enhanced the retention and productivity of incumbent workers, and helped improve the entry-level skills of prospective workers.

The PLATO courses are closely aligned with the WorkKeys competencies. This combination, along with other CCC programs and services, provides local employers and workers with effective, flexible and affordable solutions to their training needs.

For additional information about these workforce training programs, call the PLATO/Workforce Development Coordinator at the Flagstaff Campus (520-527-1222 ext. 225) or the Administrative Center at the Page Campus.



# College Compliances

## Student Complaints

Complaints and grievance by students and other constituents are addressed through various college policies and procedures and administrative offices. The College is obligated by the North Central Accreditation office to keep a record of formal complaints. Student grievance procedures are included in the *Student Code of Conduct*, available from the Dean for Student Services or on the web at [www.coco.cc.az.us](http://www.coco.cc.az.us). The privacy of the parties involved is protected.

### Title and Name

College President

Dr. Thomas S.

Jordan Ext. 203

VP for Academic Affairs

Dr. Kathleen

Corak Sund Ext. 224

VP for Administrative Support

Jami Bradley Ext. 209

Dean for Student Services

Terree Duncan Ext. 213

Director for Human Resources

Craig Schill Ext. 204

## Student Conduct

Certain conduct on the part of students is inconsistent with the learning environment, and student conduct is subject to standards set by Coconino Community College. Conduct which may lead to college disciplinary action or possible dismissal is detailed in the *Student Code of Conduct*. Copies of this document are available from the Dean for Student Services or on the College's Web site: [www.coco.cc.az.us](http://www.coco.cc.az.us).

## Ability to Benefit

According to the Higher Education Technical Amendments of 1991 (Pub. L. 102-26, enacted on April 9, 1991), individuals who have not earned a high school diploma, a GED, or are in the process of earning a GED must successfully take an independently approved examination to qualify for Title IV financial aid funds. For information contact Financial Aid Services.

## Americans with Disabilities Act (ADA)

Coconino Community College maintains programs, policies and procedures which are required under the provisions of the Americans With Disabilities Act (ADA) which establishes a clear, comprehensive federal prohibition of discrimination against persons with disabilities. The College ensures compliance with applicable building standards for existing, new and remodeled owned structures, development of standards of compliance for non-owned structures, support for an ongoing process of reasonable accommodation to applicants, employees, students and the general public using or seeking to use College facilities and services.

The College prohibits discrimination against a qualified individual with a disability in regard to admissions, registration, access to instruction, hiring, compensation, advancement, training, and other terms or conditions of employment and termination. The College provides reasonable accommodations to qualified applicants or employees with a disability unless it can show that the accommodation would impose an undue hardship on the College.

## Drug Free College

Coconino Community College is committed to the Drug Free Schools and Communities Act Amendments of 1989 specified by Public Law 101-226, as demonstrated in the College Drug and Alcohol Free Workplace policy and procedures which ensure that employees and students comply with federal and state regulations regarding a drug and alcohol free workplace/educational environment.

The College regulations prohibit the manufacture, possession, distribution or use of alcohol or a controlled substance by students, employees and campus guests in the workplace and facilities owned or leased by the College.

No employee or student who is under the influence of or has recently used alcohol and/or a controlled substance to the extent of causing major impairment of job or academic performance or disruptive behavior will be allowed to work or attend CCC classes and/or functions. Employees and students will be provided a description of the applicable legal sanctions under local, state and federal law for unlawful possession, distribution or use of alcohol or illicit drugs.

Compliance with the policy is a condition of employment and continued active student status. Employees and students are required to report violations to appropriate college authorities.

The College will assist employees and students with appropriate referral and information concerning drug and alcohol education.

## Holidays

Coconino Community College observes certain holidays and vacation periods which are detailed in each semester's *Schedule of Classes*. The College conducts classes at a variety of sites throughout Coconino County including local public school facilities. The College endeavors to follow the holiday schedule and vacation periods of the local school district to ensure access to facilities and reduce schedule conflicts for students. In general, no classes are taught on the following district-wide holidays: New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving (two days), and Christmas Day. Scheduled vacations may vary with site and local school calendars but generally includes a Winter Break beginning just prior to Christmas Day and a Spring Break in March or April.

## Religious Holidays

Students shall have the right to observe major religious holidays without penalty or reprisal by any administrator, faculty member or employee of the College. The student will be required to make up any work missed. Absences for such holidays shall not count against the number of absences allowed by an

instructor. At least one week prior to the holiday, students shall submit to their instructor(s) a written statement which contains the date of the holiday and the reason class attendance is not possible.

### Student Identification Number

Arizona Revised Statutes allows community colleges to use a student's social security number as their student identification number, but must allow the student to request a system-generated identification number. Beginning Spring 2001, Coconino Community College has elected to provide all students with a system-generated identification number. The student must still provide their social security number for tax reporting and financial aid and will be used only for such purposes as allowed under the FERPA regulations.

### Notification of Rights under FERPA

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access. Students should submit to the Registrar, Dean, Division Chair, or other appropriate official, written requests that identify 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 College 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 are inaccurate or misleading. Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or

her 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 of a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the District Governing Board; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting 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 responsibility. Upon request, the College discloses education records without consent to officials of another school, in which a student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Coconino Community College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:  
Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, D.C., 20202-4605

*Note: Periodically, the institution is required to submit student data in response to federal and state reporting mandates.*

### Student Right-To-Know and Campus Security Act

Coconino Community College is in compliance with Public Law 101-542, the Student Right-to-Know and Campus Security Act (as amended by Public Law 102-26, the Higher Education Technical Amendments of 1991). Copies of the Student Right-to-Know document are available on the College's Web site at [www.coco.cc.az.us](http://www.coco.cc.az.us).

The *Crime Awareness and Campus Security Act of 1990* requires that colleges collect, prepare, and publish information related to crime and campus security and distribute it to all current students and employees, and to any applicant for enrollment or employment, upon request. CCC's Annual Campus Security Report may be accessed at the following Web site:  
<http://www.coco.cc.az.us/stuinfo/securityrpt>



### **Carl Perkins Vocational Education Act**

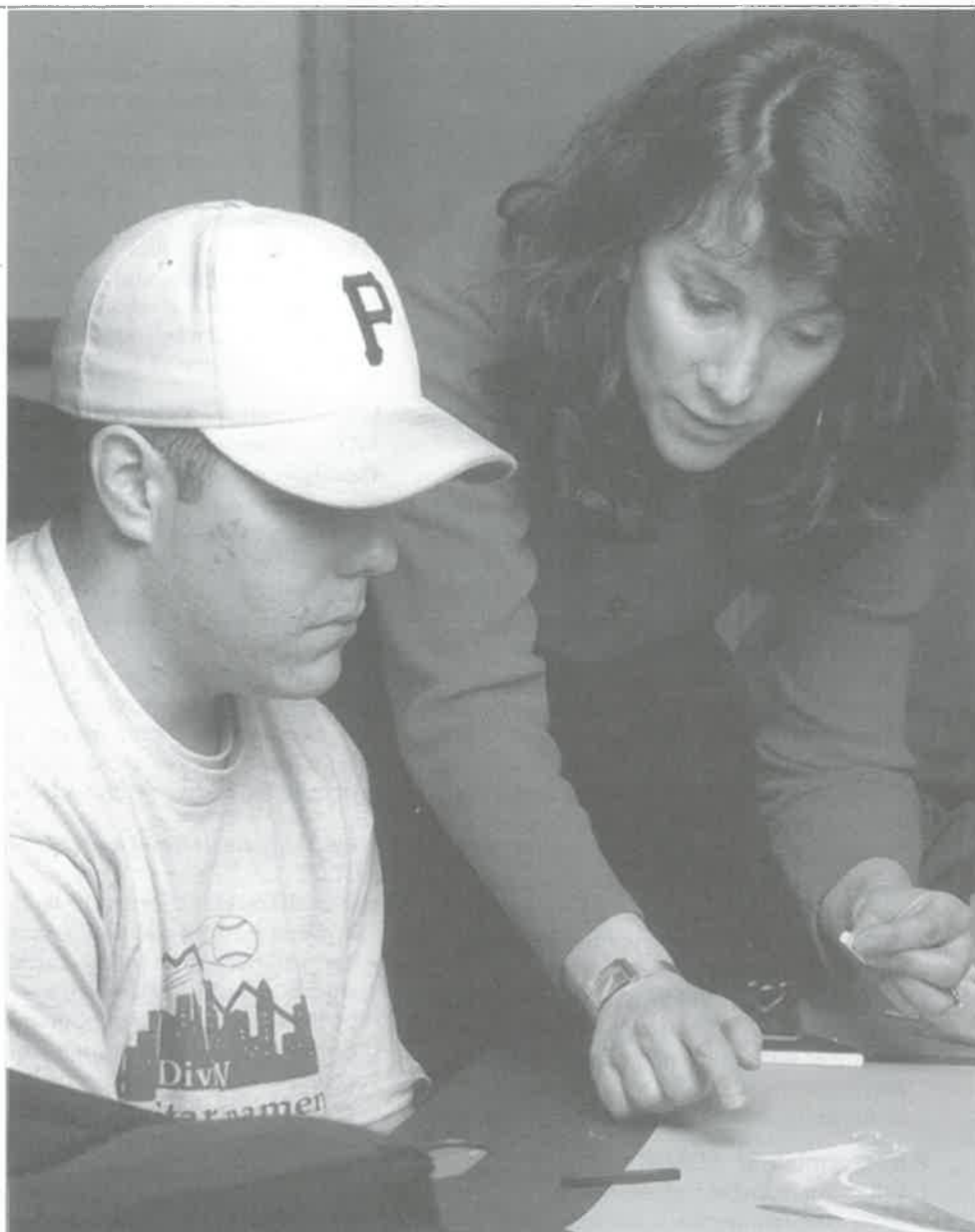
Coconino Community College receives grant funding under the federal Carl Perkins Vocational Education Act of 1998 to improve vocational education programs and to ensure the full participation of individuals who are members of special populations in vocational education programs. Special populations in the Act are defined as individuals with disabilities; economically disadvantaged individuals; individuals preparing for nontraditional training and employment for their gender; single parents; displaced homemakers; and individuals with other barriers to educational achievement, including limited English proficiency. CCC provides assistance to special populations in overcoming barriers that may result in decreased access and success in postsecondary education and does not discriminate against members of special populations.

### **Sexual Harassment**

Coconino Community College is committed to maintaining a work and educational environment free of discriminatory intimidation and sexual harassment.

All persons associated with CCC including, but not limited to, the District Governing Board, the administration, faculty, staff, students, and members of the public will provide an environment free from sexual harassment and discrimination. Any person who engages in sexual harassment and/or discrimination against others on the basis of race, gender, religion, color, national origin, age, disability or Veteran status while acting as a member of the College community or while on college property will be in violation of college policy. Inquiries regarding the policy or the filing of a complaint should be directed to the Director for Human Resources.





# General Education

*"CCC has given me confidence that  
I can succeed in a college environment.  
Before, I would have doubted myself."*

*— John Gilmore,  
Pre-Education  
Major*



### Transfer Ombudsperson (TSD)

Each Arizona state university and community college has appointed a TSO to resolve problems by transfer students as reported by students, advisors, faculty members and college officials. The TSO has the responsibility to ensure compliance with the transfer and articulation agreements and resolve problems concerning the transfer and applicability of community college credit to university programs. Students may file complaints with the university TSO or report complaints to the TSO at the community college where the transfer course work was completed.

## Guidelines for Transfer & General Education Requirements

### Thinking about Transferring? Make Your Credits Count!

#### What is AGECE?

- ◆ AGECE stands for Arizona General Education Curriculum. AGECE is the best way to make your credits count for most transfer degrees.
- ◆ The purpose of AGECE is to provide students attending any Arizona public community college with the opportunity to build a General Education curriculum that is transferable upon completion without a loss of credit to another Arizona public community college or university.
- ◆ AGECE is a statewide agreement between Arizona public community colleges, Northern Arizona University (NAU), Arizona State University (ASU), and the University of Arizona (U of A). Coconino Community College began implementing the AGECE starting Spring of 1999.
- ◆ AGECE is a 35-credit block of lower-division General Education curriculum that fulfills the lower division General Education requirements at any Arizona public community college or university.

#### Why Complete an AGECE?

1. When you complete an AGECE<sup>1</sup>, all admission requirements are waived at all Arizona public universities. This means that you are unconditionally admitted to any Arizona public university of your choice after completing an AGECE<sup>2</sup>.
2. AGECE satisfies ALL lower-division liberal studies requirements at all Arizona public universities.
3. For most majors, if you complete an AGECE and specific courses you need for transfer, you can enter any Arizona public university as a junior. Please see an Advisor for more information.
4. Save \$\$ by completing your lower-division liberal studies requirements at CCC<sup>3</sup>! On the

average, Coconino Community College's tuition rates are about 1/3 of the Arizona public universities' tuition.

5. Our classes are generally smaller than university freshman/sophomore liberal studies classes.
6. If you have some high school concurrent enrollment credits, and/or CLEP credits that satisfy our general education requirements, these credits can be counted toward an AGECE and will transfer to all Arizona public universities.

#### Why Complete a CCC Transfer Degree?

All CCC transfer degrees result in an AGECE<sup>4</sup>. Therefore, you get all the benefits of completing an AGECE and more!

- ◆ You may be able to transfer into the university as a junior. See an Advisor for more information.
- ◆ You will have an associate degree, making you more competitive in the job market.

#### When Might AGECE Not be Necessary?

Some university majors require you to take very specific courses from the beginning of your college education. See an Advisor for these majors and to discuss your academic plan.

#### What Happens If You Don't Complete An AGECE?

- ◆ You will need to meet ALL standard university admission requirements.
- ◆ You will need to complete university liberal studies requirements which may or may not be the same as Coconino Community College's General Education requirements.
- ◆ Your General Education courses will be evaluated one by one using the Course Equivalency Guide (CEG) instead of being transferred as a general education block, satisfying ALL lower-division General Education requirements.

#### Tips for Students Planning to Transfer:

- ◆ See an Advisor as soon as possible. The earlier you develop an educational plan with an Advisor, the less of a chance you have of losing credits after transferring to an Arizona public university. Don't wait until you almost graduate to see an Advisor.
- ◆ Explore your career interest to help you decide on a major early.
- ◆ Don't take any more than 64 transferable credit hours because all Arizona public universities accept only a maximum of 64 transferable credit hours<sup>5</sup>.

<sup>1</sup> Arizona residents need to have a minimum AGECE GPA of 2.0. Non-residents are required to have a minimum cumulative GPA of 2.5.

<sup>2</sup> Depending on the major or department you plan to transfer to at the university, you might still need to meet departmental admission requirements.

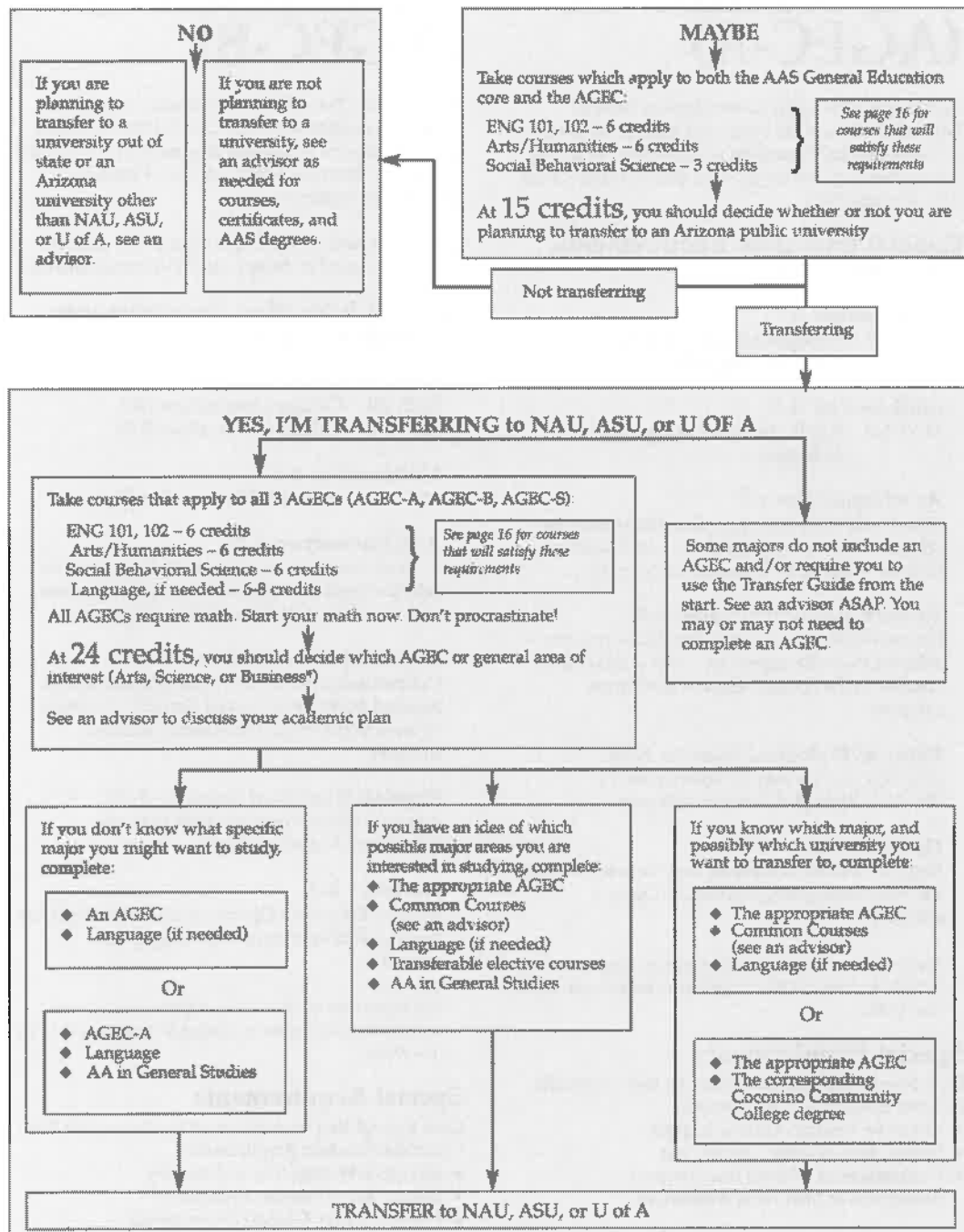
<sup>3</sup> You may or may not choose to complete a degree at Coconino Community College.

<sup>4</sup> At CCC, you don't need to switch catalogs to get the benefits of an AGECE.

<sup>5</sup> This does not mean that they will accept ALL transferable courses. Please see an advisor to discuss which courses you should take to ensure that you are taking courses that will be counted toward the university graduation requirements.

## Decision Points for Transfer Students: Make Your Credits Count!

### ARE YOU TRANSFERRING TO NAU, ASU, OR U OF A?



\*AGEC-A is a 35-credit block of lower division general education curriculum that fulfills lower division general education requirements of liberal arts majors (e.g. Anthropology, Social Science, Fine Arts, Humanities).

AGEC-B is a 35-credit block of lower division general education curriculum that fulfills lower division general education requirements of business majors (e.g. Business Administration, Computer Information Systems).

AGEC-S is a 35-credit block of lower division general education curriculum that fulfills lower division general education requirements of majors requiring more mathematics and mathematics based science (e.g. Biology, Chemistry).

### CCC Transfer Ombudsperson (TSO)

Students wishing to report a problem in transferring CCC credit to a university should provide a written request to the

CCC TSO including:

- ◆ the name of the university
- ◆ the declared major at the university
- ◆ a comprehensive statement regarding the problem or complaint related to transfer of credit or core curriculum
- ◆ a summary of the action taken by the student prior to submitting the complaint
- ◆ copies of any documentation provided to the student from university officials





## Arizona General Education Curriculum - A (AGEC-A)

AGEC-A is a 35-credit lower-division General Education curriculum block that fulfills the lower-division General Education requirements of liberal arts majors (e.g., Anthropology, Social Science, Fine Arts, Humanities).

### General Education Requirements: 35 credit hours

#### *Composition 6*

ENG 101 College Composition I (3)  
ENG 102 College Composition II (3)

#### *Mathematics 3-5*

MAT 142 Applications of College Algebra (3)  
or higher

#### *Arts/Humanities 6-9*

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### *Social/Behavioral Sciences 6-9*

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral sciences category.

#### *Physical/Biological Sciences 8-10*

Any two courses may be taken from the Physical/Biological Sciences category.

#### *Options\* 0-6*

General Education Options may be selected from the above categories or from the Options category.

\*0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECE.

### Special Requirements

Each Special Requirement must be met within the General Education Requirements

- ◆ Intensive Writing/Critical Inquiry
- ◆ Ethnic/Race/Gender Awareness
- ◆ Contemporary Global/International Awareness or Historical Awareness

## Arizona General Education Curriculum -B (AGEC-B)

AGEC-B is a 35-credit lower-division General Education curriculum block that fulfills the lower-division General Education requirements of business majors (e.g., Business Administration, Computer Information Systems).

*Note: Associate in Business degree core courses may not be used to satisfy AGECE-B requirements.*

### General Education Requirements: 35 credit hours

#### *Composition 6*

ENG 101 College Composition I (3)  
ENG 102 College Composition II (3)

#### *Mathematics 3-5*

MAT 212 Business Calculus (3) or higher

#### *Arts/Humanities 6-9*

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### *Social/Behavioral Sciences 6-9*

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral sciences category.

#### *Physical/Biological Sciences 8-10*

Any two courses may be taken from the Laboratory Sciences category.

#### *Options\* 0-6*

General Education Options may be selected from the above categories or from the Options category.

\*0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECE.

### Special Requirements

Each Special Requirement must be met within the General Education Requirements

- ◆ Intensive Writing/Critical Inquiry
- ◆ Ethnic/Race/Gender Awareness
- ◆ Contemporary Global/International Awareness or Historical Awareness

# Arizona General Education Curriculum -S (AGEC-S)

AGEC-S is a 35-credit lower-division General Education curriculum block that fulfills the lower-division General Education requirements of majors with more stringent mathematics and mathematics-based science requirements (e.g. Biology, Chemistry).

## General Education Requirements: 35 credit hours

### Composition 6

- ENG 101 College Composition I (3)  
ENG 102 College Composition II (3)

### Mathematics 5

- MAT 220 Calculus and Analytic Geometry I (5)

### Arts/Humanities 6-9

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences 6-9

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral sciences category.

### Physical/Biological Sciences 8-10

- BIO 181 Unity of Life I: Life of the Cell (4) *and*  
BIO 182 Unity of Life II: Multicellular Organisms(4)  
*or*  
CHM 151 General Chemistry I (5) *and*  
CHM 152 General Chemistry II (5)  
*or*  
PHY 161 University Physics I (4) *and*  
PHY 262 University Physics II (4)

### Options\* 0-6

General Education Options may be selected from the above categories or from the Options category.

\*0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECS.

## Special Requirements

Each Special Requirement must be met within the General Education Requirements:

- ◆ Intensive Writing/Critical Inquiry
- ◆ Ethnic/Race/Gender Awareness
- ◆ Contemporary Global/International Awareness or Historical Awareness

# General Education Values Statement

The General Education curriculum provides the core of learning in all degree programs and demonstrates the commitment of Coconino Community College to student success. This core of learning includes skills in reading, writing, quantitative and critical thinking which provide a basis for university study or lifelong education. Specific courses emphasize the principles of mathematics, science, or technology; others focus on greater awareness of self, society, and the history

and culture of humankind. General Education presents skills and knowledge for students to succeed in academic, career, and life goals.

*Note: The General Education Core Curriculum is not a degree.*

The following table summarizes the minimum General Education Core Curriculum required for each type of degree offered at CCC. When considering which type of a program is best for you, please note that if you intend to transfer to a university to complete a bachelor's degree, the Associate of Arts, Associate of Business and Associate of Science are the CCC degrees designed for that purpose. The Associate of Applied Science and Associate of General Studies degrees will require additional General Education courses.

Summary of Minimum General Education Core Curriculum Requirements

General Education Core Curriculum	Transfer Degrees			Not Intended for Transfer Degrees	
	Associate of Arts	Associate of Business	Associate of Science	Associate of Applied Science	Associate of General Studies
English Composition	6	6	6	6	6
Mathematics	3-5	3-5	5	3	3
Arts and Humanities	6-9	6-9	6-9	6	6
Social and Behavioral Sciences	6-9	6-9	6-9	6	6
Physical and Biological Sciences	8-10	8-10	8-10	4-5	4-5
General Education Options	0-6	0-6	0-6	-	-
<b>Total minimum credit hours</b>	<b>35</b>	<b>35</b>	<b>35</b>	<b>25</b>	<b>25</b>

# General Education Core Curriculum (GECC)

## English Composition (6)

- ENG 101 College Composition I (3)  
ENG 102 College Composition II (3)

*Note - AAS & AGS Degrees may substitute ENG 135 and/or ENG 136. See specific degree program for requirement listing.*

## Mathematics (3-5)

- MAT 142<sup>w</sup> Application of College Algebra (3)  
MAT 151 College Algebra (4)  
MAT 187 Precalculus (5)  
MAT 212 Business Calculus (3)  
MAT 220 Calculus & Analytic Geometry I (5)  
MAT 230 Calculus & Analytic Geometry II (5)  
MAT 241<sup>i</sup> Calculus & Analytic Geometry III (4)  
MAT 262 Differential Equations (3)

*Note - AAS & AGS Degrees may substitute MAT 121 or higher or BUS 100. See specific degree program for requirement listing.*

## Arts and Humanities (6-9)

Courses from two or more disciplines must be selected to meet the requirement.

- ART 100 Art Appreciation (3)  
ART 201<sup>c</sup> Art History I (3)  
ART 202<sup>c</sup> Art History II (3)  
ART 221<sup>cs</sup> Art of the Southwest (3)  
ENG 236<sup>t</sup> Introduction to the American Short Story (3)  
ENG 237<sup>b</sup> Women in Literature (3)  
ENG 238<sup>b</sup> Literature of the Southwest (3)  
ENG 272<sup>w</sup> Creative Writing: Nonfiction (3)  
HUM 235 American Arts and Ideas (3)  
HUM 241<sup>w</sup> Humanities I (3)  
HUM 242<sup>wc</sup> Humanities II (3)  
MUS 100 Music Appreciation (3)  
MUS 145 Jazz History & Literature (3)  
PHI 101<sup>c</sup> Introduction to Philosophy (3)  
PHI 105<sup>a</sup> Introduction to Ethics (3)  
REL 201<sup>c</sup> Comparative Religions (3)  
THR 101 Introduction to Theatre (3)

## Social and Behavioral Sciences (6-9)

Courses from two or more disciplines must be selected to meet the requirement.

- ANT 102<sup>sc</sup> Introduction to Cultural Anthropology (3)  
ANT 110 Exploring Archeology (3)  
ANT 210<sup>sc</sup> Peoples of the World (3)  
ANT 230<sup>sc</sup> Peoples of the Southwest (3)  
BUS 203 Business Law (3)  
BUS 214 Legal, Ethical & Regulatory Issues in Business (3)  
ECN 204<sup>w</sup> Macroeconomic Principles (3)  
ECN 205 Microeconomic Principles (3)  
GEO 133<sup>c</sup> World/Regional Geography (3)  
HIS 131<sup>sc</sup> United States History to 1877 (3)  
HIS 132<sup>sc</sup> United States History from 1877 (3)  
HIS 136<sup>sc</sup> Women in American History (3)  
HIS 201<sup>c</sup> Western Civilization to 1660 (3)

- HIS 202<sup>c</sup> Western Civilization from 1660 (3)  
HIS 250<sup>sc</sup> Asian Civilization through 1644 (3)  
HIS 251<sup>sc</sup> Asian Civilization from 1645 (3)  
POS 101 Introduction to Politics (3)  
POS 110 American National Government (3)  
POS 120<sup>c</sup> Introduction to World Politics (3)  
POS 220<sup>w</sup> Arizona & National Constitution (3)  
POS 233<sup>c</sup> Global Environmental Politics (3)  
PSY 101 Introduction to Psychology (3)  
PSY 227<sup>w</sup> Personality Theory (3)  
PSY 236<sup>b</sup> Psychology of Women (3)  
PSY 240<sup>b</sup> Developmental Psychology (3)  
PSY 250<sup>ws</sup> Social Psychology (3)  
SOC 101 Introduction to Sociology (3)  
SOC 132<sup>b</sup> Social Problems (3)  
SOC 142<sup>b</sup> Race & Ethnic Relations (3)  
SOC 210<sup>ws</sup> Sociology of Gender (3)

## Physical and Biological Sciences (8-10)

- ANT 101 Introduction to Physical Anthropology (4)  
BIO 100 Biology Concepts (4)  
BIO 105<sup>wc</sup> Environmental Biology (4)  
BIO 109 Natural History of the Southwest (4)  
BIO 181 Unity of Life I: Life of the Cell (4)  
BIO 182 Unity of Life II: Multicellular Organisms (4)  
BIO 201 Human Anatomy & Physiology I (4)  
BIO 202 Human Anatomy & Physiology II (4)  
BIO 205 Microbiology (4)  
BIO 253 Biotechnology and Social Issues (4)  
CHM 130 Fundamental Chemistry (4)  
CHM 151 General Chemistry I (5)  
CHM 152 General Chemistry II (5)  
GEO 131 Introduction to Physical Geography (4)  
GLG 101 Physical Geology (4)  
GLG 102 Historical Geology (4)  
PHY 107 Concepts of Physics (4)  
PHY 111 College Physics I (4)  
PHY 112 College Physics II (4)  
PHY 161 University Physics I (4)  
PHY 180 Introduction to Astronomy (4)  
PHY 253<sup>cs</sup> Archaeoastronomy (4)  
PHY 262 University Physics II (4)

*General Education Options may be selected from the above lists or from the following: (0-6)*

- ASL 101 American Sign Language I (4)  
ASL 102 American Sign Language II (4)  
ASL 201 American Sign Language III (4)  
ASL 202 American Sign Language IV (4)  
CIS 120 Introduction to Computer Information Systems (3)  
FRE 101 Beginning French I (4)  
FRE 102 Beginning French II (4)  
GER 101 Beginning German I (4)  
GER 102 Beginning German II (4)  
MAT 160 Introduction to Statistics (3)  
NAV 101 Beginning Navajo I (4)  
NAV 102 Beginning Navajo II (4)  
SPA 101 Beginning Spanish I (4)  
SPA 102 Beginning Spanish II (4)  
SPA 201 Intermediate Spanish I (4)  
SPA 202 Intermediate Spanish II (4)  
SPC 100 Fundamentals of Speech Communication (3)

*Note - Check your chosen degree program for specific General Education requirements.*



# Arizona General Education Curriculum (AGEC)

The Arizona General Education Curriculum (AGEC) is a block of 35 semester credit hours of lower-division, General Education course work. There are three forms of AGEC:

1. AGEC-A is a 35-credit lower-division General Education curriculum block that fulfills the lower-division General Education requirements of liberal arts majors (e.g. Fine Arts/Visual Arts, Psychology, Sociology)
2. AGEC-B is a 35-credit lower-division General Education curriculum block that fulfills the lower-division General Education requirements of business majors (e.g. Business Administration, Computer Information Systems)
3. AGEC-S is a 35-credit lower-division General Education curriculum block that fulfills the lower-division General Education requirements of majors with more stringent mathematics and mathematics-based Science requirements (e.g. Biology, Chemistry)

AGEC-A, AGEC-B, and AGEC-S can be completed separately or as part of an associates degree at CCC and must include the Special Requirements listed below. The College certifies completion of the AGEC on the official transcript.

A completed AGEC will transfer as a block to meet the lower-division General Education requirements at any of the Arizona public universities or other Arizona community colleges. Transfer students who wish to earn the associate degree must then meet additional CCC degree requirements. To earn the bachelor's degree, students transferring the AGEC must still meet course prerequisites, major requirements, and upper-division requirements at their chosen university.

## Special Requirements

Students planning to transfer a completed AGEC must meet the additional Special Requirements listed below. These requirements may be met within the 35 hours of General

Education Core Curriculum by choosing one course from each of the following lists.

*Note - A course can fulfill more than one Special Requirement.*

### Intensive Writing/Critical Inquiry

This requirement must be completed at Coconino Community College

- BIO 105 Environmental Biology (4)
- ECN 204 Macroeconomic Principles (3)
- ENG 272 Creative Writing: Nonfiction (3)
- HUM 241 Humanities I (3)
- HUM 242 Humanities II (3)
- POS 220 Arizona & National Constitution (3)
- PSY 227 Personality Theory (3)
- PSY 250 Social Psychology (3)
- SOC 210 Sociology of Gender (3)

*Note - ENG 102 is a pre- or co-requisite for these courses.*

### Ethnic/Race/Gender Awareness

- ANT 102 Introduction to Cultural Anthropology (3)
- ANT 210 Peoples of the World (3)
- ANT 230 Peoples of the Southwest (3)
- ART 221 Art of the Southwest (3)
- ENG 236 Introduction to the American Short Story (3)
- ENG 237 Women in Literature (3)
- ENG 238 Literature of the Southwest (3)
- HIS 131 United States History to 1877 (3)
- HIS 132 United States History from 1877 (3)
- HIS 136 Women in American History (3)
- HIS 250 Asian Civilization to 1644 (3)
- HIS 251 Asian Civilization from 1645 (3)
- PHI 105 Introduction to Ethics (3)
- PHY 253 Archaeoastronomy (4)
- PSY 236 Psychology of Women (3)
- PSY 240 Developmental Psychology (3)
- PSY 250 Social Psychology (3)
- SOC 132 Social Problems (3)
- SOC 142 Race & Ethnic Relations (3)
- SOC 210 Sociology of Gender (3)

### Contemporary Global/International Awareness or Historical Awareness

- ANT 102 Introduction to Cultural Anthropology (3)
- ANT 210 Peoples of the World (3)
- ANT 230 Peoples of the Southwest (3)
- ART 201 Art History I (3)
- ART 202 Art History II (3)
- ART 221 Art of the Southwest (3)
- BIO 105 Environmental Biology (4)
- GEO 133 World/Regional Geography (3)
- HIS 131 United States History to 1877 (3)
- HIS 132 United States History from 1877 (3)
- HIS 136 Women in American History (3)
- HIS 201 Western Civilization to 1660 (3)
- HIS 202 Western Civilization from 1660 (3)
- HIS 250 Asian Civilization through 1644 (3)
- HIS 251 Asian Civilization from 1645 (3)
- HUM 242 Humanities II (3)
- PHI 101 Introduction to Philosophy (3)
- REL 201 Comparative Religions (3)
- PHY 253 Archaeoastronomy (4)
- POS 120 Introduction to World Politics (3)
- POS 233 Global Environmental Politics (3)

\* Minimum credits required for Transfer Degrees.

\* Course meets the Intensive Writing/Critical Inquiry special requirement.

\* Course meets the Ethnic/Race/Gender Awareness special requirement.

\* Course meets the Contemporary/Global/International or Historical Awareness special requirement.



# Quick Reference to Degrees & Certificates

## *Are you planning to transfer to a university?*

The Associate of Arts (AA), Associate of Business (ABus) and Associate of Science (AS) degrees are designed to make the transfer process as painless as possible. Be sure to check the particular degree requirements of the university you plan on attending; they may have special requirements. Your Advisor will assist you in planning the best program for you. The following is a list of the AA, ABus and AS degrees currently offered at Coconino Community College:

### **ASSOCIATE OF ARTS DEGREE (AA)**

- ◆ Administration of Justice
- ◆ Construction Management
- ◆ Elementary Education
- ◆ Fine Arts - Visual Arts
- ◆ General Studies
- ◆ Hotel and Restaurant Management
- ◆ Pre-Social Work
- ◆ Psychology
- ◆ Sociology
- ◆ Vocational Technology Education

### **ASSOCIATE OF BUSINESS (ABus)**

- ◆ Business Administration

### **ASSOCIATE OF SCIENCE DEGREE (AS)**

- ◆ Environmental Science

## *Are you seeking to improve your work skills or options with an associate degree and do not plan to transfer into a 4-year degree program?*

See your Advisor to plan the program best suited to your needs and interests. The following Associate of Applied Science (AAS) degrees have been designed for you:

### **ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)**

- ◆ Administration of Justice
- ◆ Alternative Energy Technology
- ◆ Architectural Design Technology
- ◆ Business Technologies
- ◆ Carpentry Apprenticeship

- ◆ Computer Software Technology
- ◆ Construction Technology
- ◆ Early Childhood Education
- ◆ Fire Science
- ◆ Hospitality Management
- ◆ Office Information Systems
- ◆ Sheet Metal Apprenticeship

## *Are you seeking to broaden your knowledge but have no university major or vocational goal in mind?*

The Associate of General Studies (AGS) degree has been designed for you.

## *Are you interested in improving your skills but may not want to get a degree?*

Many courses in certificate programs can be applied to degrees. See your Advisor for further information.

The following is a list of Certificates available through CCC:

### **CERTIFICATES**

- ◆ Accounting Technician
- ◆ Alternative Energy Technician
- ◆ Assisted Living
- ◆ Carpentry
- ◆ Clerical
- ◆ Computer Software Technology
- ◆ Construction Technology
- ◆ Drafting
  - Architectural CAD Technician
  - Computer-Aided Drafting
- ◆ Early Childhood Education
- ◆ Electrical Construction Wiring Training
- ◆ Employment Success
- ◆ Fire Science
- ◆ Hospitality
- ◆ Legal Secretary
- ◆ Manufacturing
  - High Pressure Pipe and Tube Welding
  - Pipe Welding
  - Structural Welding
- ◆ Medical Insurance, Coding and Billing
- ◆ Medical Transcription
- ◆ Nursing Assisting
- ◆ Phlebotomy
- ◆ Pre-Professional Nursing
- ◆ Psychiatric Technician
- ◆ Sheet Metal

# & Degrees Certificates

## ASSOCIATE OF ARTS DEGREE

The Associate of Arts Degree is designed for students planning to transfer to a college or university and requires a minimum of 60 credit hours. All courses included in the degree must be completed with a grade of "C" or better. A minimum of 35 of these credit hours must be completed in the Arizona General Education Curriculum (AGEC-A, AGEC-B or AGEC-S). The remaining degree requirements are comprised of 25 credit hours or more in the student's elected program of study. Courses numbered 100 or above which transfer as equivalent, departmental elective credit (DEC) or general elective credit (E) will be counted toward this degree. Special Topics courses (298) will not be counted toward this degree.

## ASSOCIATE OF BUSINESS DEGREE

The Associate of Business is designed for students planning to transfer to a college or university and requires a minimum of 62 credit hours. All courses included in the degree must be completed with a grade of "C" or better. A minimum of 35 of these credit hours must be completed in the Arizona General Education Curriculum (AGEC-B). The remaining degree requirements are comprised of 25 credit hours or more in the student's elected program of study.

Courses numbered 100 or above which transfer as equivalent, departmental elective credit (DEC) or general elective credit (E) will be counted toward this degree. Special Topics courses (298) will not be counted toward this degree.

## ASSOCIATE OF SCIENCE DEGREE

The Associate of Science Degree is designed for students planning to transfer to a college or university and requires a minimum of 60 credit hours. All courses included in the degree must be completed with a grade of "C" or better. A minimum of 35 of these credit hours must be completed in the Arizona General Education Curriculum (AGEC-S). The remaining degree requirements are comprised of 25 credit hours or more in the student's elected program of study.

Courses numbered 100 or above which transfer as equivalent, departmental elective credit (DEC) or general elective credit (E) will be counted toward this degree. Special Topics courses (298) will not be counted toward this degree.

## ASSOCIATE OF APPLIED SCIENCE DEGREE

The Associate of Applied Science Degree prepares students for entry-level employment or upgrades skills of students already employed. This degree requires a minimum of 60 credit hours with a cumulative CCC grade point average of 2.00 or higher. A minimum of 25 of these credit hours must be completed in the General Education Core Curriculum with a grade of "C" or better. Courses numbered below 100 and courses taken for S/U credit will not be counted toward this degree. This degree is not intended for transfer to a university, although some courses may be accepted for transfer by universities.

## ASSOCIATE OF GENERAL STUDIES DEGREE

The Associate of General Studies Degree is designed for students who wish to broaden their knowledge, but have no university major or vocational goal in mind. This degree requires a minimum of 60 credit hours with a cumulative CCC grade point average of 2.00 or higher. Students must complete a minimum of 24 credit hours of General Education courses but are otherwise free to explore other areas of interest. A maximum of 12 credit hours may be completed in courses numbered below 100. This degree is not recommended for students planning to transfer to a university. The A.G.S. Degree is intended as an alternative degree which recognizes the mission of the community college that education is a lifelong process.

## CERTIFICATE PROGRAMS

Certificate programs are designed to provide specific knowledge to improve existing skills or to prepare students for entry-level employment. Certificates are awarded after successful completion of a series of specific courses. Certificates require a cumulative CCC grade point average of 2.00 or higher. Some certificate programs and/or credit hours may be applied toward other certificates and/or an Associate of Applied Science degree.

## COURSE PREFIXES

The following prefixes are used in course descriptions at CCC and are listed in alphabetical order by discipline.

ACC	Accounting
AJS	Administration of Justice
AES	Air Force Studies
AHS	Allied Health Sciences
ASL	American Sign Language
ANT	Anthropology
ART	Art
AUT	Automotive
AVT	Aviation
BIO	Biology
BUS	Business
CHM	Chemistry
CIS	Computer Information Systems
DAN	Dance
DFT	Drafting
ECE	Early Childhood Education
ECN	Economics
EDU	Education
ELT	Electronics
EMS	Emergency Medical Services
EGR	Engineering
ENG	English
ENV	Environmental Studies
FSC	Fire Science
FRE	French
GEO	Geography
GLG	Geology
GER	German
HIS	History
HRM	Hotel and Restaurant Management
HDE	Human Development Education
HUM	Humanities
ITC	Industrial Technology Construction
INT	Internship
LDR	Leadership
MCH	Machine Shop
MIT	Manufacturing and Industrial Technology
MAT	Mathematics
MSC	Military Science
MUS	Music
MUP	Music Performance
NAV	Navajo
NUR	Nursing
NTR	Nutrition
OIS	Office Information Systems
PHI	Philosophy
PHE	Physical Education
PHY	Physics
POS	Political Science
PSY	Psychology
RES	Real Estate
REC	Recreation
REL	Religious Studies
SCI	Science
SOC	Sociology
SPA	Spanish
SPC	Speech





# Degrees

*" Learn something new everyday,  
teach someone else  
something new everyday,  
and never give up."*

*—Janette Smith,  
Business Administration  
Major*



# Administration of Justice – AA Degree

The Associate of Arts in Administration of Justice is designed for transfer to the Criminal Justice bachelor's degree at Northern Arizona University (NAU) and Arizona State University (ASU). The program provides students with knowledge and skills which can be used to enter a wide variety of law enforcement and corrections positions. Students completing this degree will transfer 60-64 credits to NAU or ASU. Students planning to transfer to a university other than NAU or ASU should see an Advisor. This degree results in an AGECA, which is transferable to all Arizona public universities.

**Minimum credit hours required: 60**

## AGEC-A Requirements 35 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGECA requirements.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

- MAT 142<sup>1</sup> Applications of College Algebra (3)  
or higher

### Arts/Humanities (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6-9)

Courses from two or more disciplines must be selected from the approved general education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/Biological Sciences category.

### General Education Options (0-6)<sup>2</sup>

General Education Options may be selected from the above categories or from the Options category.

## Degree Core Requirements 25-29 Credit Hours

### Required: 15 credit hours

- AJS 101 Introduction to Administration of Justice (3)  
AJS 110 The Correction Function (3)  
AJS 130 The Police Function (3)  
AJS 260 Constitutional Law (3)  
AJS 280 Criminology (3)

### Electives: 10-14 credit hours

10-14 credits of transferable courses as stated in the *Course Equivalency Guide (CEG)*. These courses must transfer to all Arizona public universities. See an advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the CEG.

### Recommended Electives

One course at the 100 level or above in Spanish or Navajo (This course may be used to fulfill the AGECA Options requirement). (4)  
SOC 142 Race & Ethnic Relations (3)  
SOC 210 Sociology of Gender (3)



<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECA.

# Construction Management – AA Degree

The Construction Management degree is designed for transfer to the Construction Management bachelor's degree program at Northern Arizona University. Students completing this degree will transfer 64 credits to NAU. This degree results in an AGEC-A, which is transferable to all Arizona public universities. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 65**

## AGEC-A Requirements 37 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGEC requirements.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (5)

- MAT 187<sup>1</sup> Pre-Calculus (5)

### Arts/Humanities (6)

Courses from two disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

- ECN 204<sup>1</sup> Macroeconomic Principles (3)  
BUS 214<sup>1</sup> Legal, Ethical & Regulatory Issues in Business (3)

### Physical/Biological Sciences (8)

- PHY 111<sup>1</sup> College Physics I (4)  
PHY 112<sup>1</sup> College Physics II (4)

### General Education Options (6)

- SPC 100 Fundamentals of Speech Communication (3)  
CIS 120 Introduction to Computer Information Systems (3)

## Degree Core Requirements 28 Credit Hours

### Required: 28 credit hours

- ACC 101<sup>1</sup> Principles of Financial Accounting (3)  
DFT 125<sup>1</sup> Architectural Drafting I (3)  
DFT 150<sup>1</sup> Auto CAD 2D (3)  
GLG 101 Physical Geology (4)  
*or*  
CHM 151<sup>1</sup> General Chemistry I (4)  
ITC 120 Building the Human Environment (3)  
ITC 170 Plane Surveying & Building Layout (3)  
ITC 180 Building Construction Methods I (3)  
ITC 185 Building Construction Methods II (3)  
ITC 210<sup>1</sup> Structural Design & Building Materials (3)



ASSOCIATE OF ARTS

<sup>1</sup> Placement test and/or prerequisite required.

# Elementary Education – AA Degree

**T**he Associate of Arts in Elementary Education is designed for students planning to transfer to an Elementary Education bachelor's degree program at all Arizona public universities and requires a minimum of 60 credits. Students planning to transfer to a university other than an Arizona public university should see an Advisor. This degree results in an AGECA-A, which is transferable to all Arizona public universities. *Requirements (Mathematics, Social/Behavioral Sciences, and Natural Language requirements) differ significantly among state universities. Students should see an Advisor to plan their program of study to avoid transfer difficulties.*

**Minimum credit hours required: 60**

## AGECA Requirements 35 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGECA requirements.

### Composition (6)

ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

MAT 142<sup>1</sup> Applications of College Algebra (3)  
or higher

### Arts/Humanities (6)

Two courses in Art (ART), Music (MUS), or Theatre (THR) from the approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Two courses from the approved General Education courses in the Social/ Behavioral Sciences category. (Before selecting these courses see an Advisor.)

### Highly recommended:

(Two of the following)

GEO 133 World/Regional Geography (3)  
HIS 131 U S History to 1877 (3)  
POS 220<sup>1</sup> Arizona and National Constitution (3)  
PSY 101 Introduction to Psychology (3)  
SOC 101 Introduction to Sociology (3)

### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/ Biological Sciences category.

### Recommended:

BIO 105<sup>1</sup> Environmental Biology (4)

### General Education Options (6)

Two courses from the approved General Education courses in the General Education Options category. A first year of foreign language (101 & 102) is highly recommended.

## Degree Core Requirements 25-30 Credit Hours

### Required: 25 credit hours

CIS 102 Computer Literacy (2)

or

CIS 120 Introduction to Computer  
Information Systems (3)

EDU 200 Introduction to Education (3)

EDU 222 Introduction to Special Education (3)

EDU 230 Cultural Diversity in Education (3)

MAT 130<sup>1</sup> Math for Elementary Education  
Teachers I (3)

(Before enrolling in MAT 131 see an  
advisor.)

MAT 131<sup>1</sup> Math for Elementary Education  
Teachers II (3)

(Before enrolling in MAT 131 see an  
advisor.)

Two semesters of any second year (201-202) natural human language other than English, including American Sign Language (8). (Before enrolling in a natural human language course see an Advisor.)

### Electives: 0-4 credit hours

0-4 credits of transferable courses as stated in the *Course Equivalency Guide (CEG)*. These courses must transfer to all Arizona public universities. See an Advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the current CEG.



# Fine Arts - Visual Arts

## - AA Degree

The Associate of Arts degree in Fine Arts/Visual Arts is designed for transfer to the Fine Arts bachelor's degree program at all Arizona public universities. The program gives students a strong foundation in visual composition and art history and prepares them to continue their fine arts education in drawing, painting, photography, ceramics, or sculpture. Students completing this degree will transfer 60-64 credits to all Arizona public universities. *Requirements differ significantly among state universities. Students should see an Advisor to plan their program of study to avoid transfer difficulties.*

**Minimum credit hours required: 60**

### AGEC-A Requirements

#### 35 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGEC requirements.

#### Composition (6)

ENG 101<sup>1</sup> College Composition I (3)

ENG 102<sup>1</sup> College Composition II (3)

#### Mathematics (3-5)

MAT 142<sup>1</sup> Applications of College Algebra (3)  
or higher

#### Arts/Humanities (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### Social/Behavioral Sciences (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral Sciences category.

#### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/Biological Sciences category.

#### General Education Options (0-6)<sup>2</sup>

General Education Options may be selected from the above categories or from the Options category.

### Degree Core Requirements

#### 25 Credit Hours

#### Required: 15 credit hours

ART 110 Drawing I (3)

ART 160<sup>1</sup> Two-dimensional Design (3)

ART 165 Three-dimensional Design (3)

ART 201<sup>1</sup> Art History I (3)

ART 202<sup>1</sup> Art History II (3)

#### Degree Electives: 6 credit hours

Select six hours of suggested electives.

ART 111<sup>1</sup> Drawing II (3)

ART 120 Ceramics I (3)

ART 150 Photography I (3)

ART 180<sup>1</sup> Sculpture I (3)

ART 190<sup>1</sup> Painting I (3)

ART 191<sup>1</sup> Painting II (3)

ART 210<sup>1</sup> Life Drawing (3)

#### Electives: 4 credit hours

Four credits of transferable courses as stated in the *Course Equivalency Guide (CEG)*. These courses must transfer to all Arizona public universities. See an advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the CEG.



<sup>1</sup>Placement test and/or prerequisite required.

<sup>2</sup>0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGEC.



## General Studies – AA Degree

The General Studies degree is designed for students who either have undeclared majors or who are developing a general or liberal studies emphasis. Students completing this degree will transfer 60-64 credits to all Arizona public universities. Students planning to transfer to a university other than an Arizona public university should see an Advisor.

### There are three pathways in the General Studies degree:

#### 1. General Requirements Pathway

This pathway requires AGEC-A and 4th semester natural human language proficiency, other than English, including American Sign Language.

#### 2. Special Requirements Pathway

This pathway requires students to take AGEC-A and some *Common Courses*. *Common Courses* are courses that are accepted as a part of the major at all Arizona public universities. The list of *Common Courses* is determined statewide. See an Advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for these *Common Courses*.

#### 3. Science Pathway

This pathway is designed for students planning to transfer to an Arizona public university with a major requiring rigorous mathematics or mathematics-based science. Students are required to take AGEC-S and courses that will apply toward the major at the university after transfer. Students considering this pathway should meet with an Advisor as early as possible.

Depending on the area of interest, one pathway may be more suitable for a student's educational plan than the other. Students changing pathways may accumulate more credits than necessary for graduation from a university. See an Advisor for more information.

Minimum credit hours required: 60

### AGEC-A Requirements for both General Requirements Pathway & Special Requirements Pathway 35 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGEC requirements.

#### Composition (6)

ENG 101<sup>1</sup> College Composition I (3)

ENG 102<sup>1</sup> College Composition II (3)

#### Mathematics (3-5)

MAT 142<sup>1</sup> Applications of College Algebra (3)  
or higher

#### Arts/Humanities (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### Social/Behavioral Sciences (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral Sciences category.

#### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/ Biological Sciences category.

#### General Education Options (0-6)<sup>2</sup>

General Education Options may be selected from the above categories or from the Options category.

### Degree Core Requirements 25 Credit Hours

#### 1. General Requirements Pathway

Required: up to 16 credit hours.<sup>3</sup>

4th semester proficiency in any natural human language, other than English, including American Sign Language.

#### Electives — 9 or more

Nine credits of transferable courses as stated in the *Course Equivalency Guide*. These courses must transfer to all Arizona public universities. See an Advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the *Course Equivalency Guide*.

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGEC.

<sup>3</sup> Students who can complete the 4th semester language proficiency in less than 16 credit hours may choose more elective transferable credits.

## 2. Special Requirements Pathway

Depending on your area(s) of interest and/or the university you intend to transfer to, you may need to decide on your transfer plan as early as possible. Please see an Advisor to determine your educational plan.

### Required

*Common Courses* in the area(s) of interest/emphasis. See an Advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for these *Common Courses*.

### Electives

Transferable courses as stated in the *Course Equivalency Guide (CEG)*. These courses must transfer to all Arizona public universities. See an Advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the current CEG.

Some university degrees may require 4th semester language proficiency in addition to the *Common Courses*. See an Advisor for more information.

### *Physical/Biological Sciences (8-10)*

BIO 181<sup>1</sup> Unity of Life I: Life of the Cell (4) *and*

BIO 182<sup>1</sup> Unity of Life II: Multicellular Organisms (4)

*or*

CHM 151<sup>1</sup> General Chemistry I (5) *and*

CHM 152<sup>1</sup> General Chemistry II (5)

*or*

PHY 161<sup>1</sup> University Physics I (4) *and*

PHY 262<sup>1</sup> University Physics II (4)

### *General Education Options (0-6)<sup>2</sup>*

General Education Options may be selected from the above categories or from the Options category.

### *Degree core requirements for the Science Pathway* **25 credit hours**

Students in the Science Pathway need to complete CCC courses that will apply toward the requirements of the intended university major. Please see an Advisor to design an educational plan.

## 3. Science Pathway

### *AGEC-S Requirements*

#### **35 Credit Hours**

See page 20 for General Education Courses that can be used to satisfy AGECE requirements.

#### *Composition (6)*

ENG 101<sup>1</sup> College Composition I (3)

ENG 102<sup>1</sup> College Composition II (3)

#### *Mathematics (5)*

MAT 220<sup>1</sup> Calculus and Analytical Geometry I (5)

#### *Arts/Humanities (6-9)*

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### *Social/Behavioral Sciences (6-9)*

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral Sciences category.



<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECE.





# Hotel & Restaurant Management – AA Degree

The Associate of Arts in Hotel and Restaurant Management is designed for transfer to the Hospitality bachelor's degree at Northern Arizona University (NAU). This program trains graduates for management careers in one of the fastest growing industries in the United States, the hospitality industry. Students completing this degree will transfer 63-64 credits to NAU. Students planning to transfer to a university other than NAU should see an advisor. This degree results in an AGEC-A, which is transferable to all Arizona public universities. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 63**

## AGEC-A Requirements 36 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGEC requirements.

### Composition (6)

ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

MAT 142<sup>1</sup> Applications of College Algebra (3) or higher

### Arts/Humanities (6)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

ECN 204<sup>1</sup> Macroeconomic Principles (3)  
One more course not in Economics from the approved General Education courses in the Social/Behavioral sciences category.

### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/Biological Sciences category.

## General Education Options (7)

ECN 205 Microeconomic Principles (3)  
Second semester proficiency (102 level) in any natural human language, other than English, including American Sign Language.(4)

## Degree Core Requirements 27 Credit Hours

### Required: 27 credit hours

ACC 101<sup>1</sup> Principles of Financial Accounting (3)  
HRM 100 Introduction to Hospitality (3)  
HRM 140 Food Production Concepts (3)  
HRM 170 Hospitality Information Technology (3)  
HRM 210 Guest Service Management (3)  
HRM 220 Property Management (3)  
HRM 225<sup>1</sup> Hospitality Accounting (3)  
HRM 235 Hospitality Law (3)  
HRM 240 Commercial Food Production (3)

Handwritten red mark: a checkmark and the number 3.



# Pre-Social Work – AA Degree

The Associate of Arts degree in Pre-Social Work is a Transfer Partnership Degree with Northern Arizona University. The Pre-Social Work degree is designed to allow students to satisfy the admission requirements for the Bachelor's of Social Work (BSW) degree at Northern Arizona University. Completion of the degree does not guarantee admission to the program. Students planning to gain admission to the BSW degree should contact the Department of Sociology and Social Work at Northern Arizona University for specific admission requirements.

Please see an Advisor for more information regarding this degree.

Minimum credit hours required: 62-64

## AGEC-A Requirements 35 Credit Hours

### Composition (6)

ENG 101 College Composition I (3)  
ENG 102 College Composition II (3)

### Mathematics (3-5)

MAT 142 Applications of College Algebra  
or higher (3-5)

### Arts/Humanities (6-9)

Courses from two or more disciplines must be selected from the approved AGECE courses in the Arts/Humanities category.

### Social/Behavioral (6-9)

Courses from two or more disciplines must be selected from the approved AGECE courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/Biological Sciences category.

### General Education Options (3-6)<sup>1</sup>

May be selected from the above categories or from the Options category.

### Required:

CIS 120 Introduction to Computer  
Information Systems (3)

## Degree Core Requirements 27-29 credit hours

ECN 204 Macroeconomic Principles (3)  
PHI 105 Introduction to Ethics (3)  
POS 110 American National Government (3)  
PSY 101 Introduction to Psychology (3)  
PSY 230 Introduction to Statistics (3)  
PSY 240 Developmental Psychology (3)  
SOC 142 Race and Ethnic Relations (3)  
SOC 210 Sociology of Gender (3)  
SOC 220 Introduction to Social Work (3)

## Electives: 0-2 credit hours

0-2 hours of transferable courses as stated in the *Course Equivalency Guide (CEG)*. These courses must transfer to all Arizona public universities. See an advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for current CEG.

<sup>1</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECE.



## Psychology – AA Degree

The Associate of Arts degree in Psychology is designed for transfer. This degree has two pathways:

### 1. The Language Pathway

The Psychology Language Pathway is designed for transfer to the Psychology bachelor of arts (BA) degrees at all Arizona public universities. Students completing this degree will transfer 60-64 credits to all Arizona public universities. Students planning to transfer to a university other than Arizona public universities should see an Advisor.

*Requirements differ significantly among state universities. Students should see an Advisor to plan their program of study to avoid transfer difficulties.*

### 2. The Science Pathway

The Psychology Science Pathway is designed for transfer to the Psychology bachelor of science (BS) degrees at all Arizona public universities. Students completing this degree will transfer 60-64 credits to all Arizona public universities. *Requirements differ significantly among state universities. Students should see an Advisor to plan their program of study to avoid transfer difficulties.*

*Please see an Advisor for more information regarding these two pathways.*

Minimum credit hours required: 60

### AGEC-A Requirements 35 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGECE requirements.

#### Composition (6)

ENG 101<sup>1</sup> College Composition I (3)

ENG 102<sup>1</sup> College Composition II (3)

#### Mathematics (3-5)

MAT 142<sup>1</sup> Applications of College Algebra (3)  
or higher

#### Arts/Humanities (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### Social/Behavioral Sciences (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral Sciences category.

#### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/Biological Sciences category.

#### General Education Options (0-6)<sup>2</sup>

General Education Options may be selected from the above categories or from the Options category.

### Degree Core

25-29 Credit Hours

Degree Core Courses: 16 credit hours

#### Required Courses:

PSY 101 Introduction to Psychology (3)

PSY 230<sup>1</sup> Introduction to Statistics (3)

PSY 290<sup>1</sup> Research Methods (4)

#### Select one course from the following:

PSY 205 Introduction to Abnormal Psychology (3)

PSY 234<sup>1</sup> Child Growth and Development (3)

PSY 236 Psychology of Women (3)

PSY 280 Health Psychology (3)

#### Select one course from the following:

PSY 227<sup>1</sup> Personality Theory (3)

PSY 240 Developmental Psychology (3)

PSY 250<sup>1</sup> Social Psychology (3)

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECE.





## 1. Language Pathway: 9-13 credit hours

### a. Language: 8 credits

Two semesters of any second year (201 and 202) natural human language other than English, including American Sign Language.<sup>1</sup>  
(Before enrolling in a natural human language course see an advisor.)

### b. Electives: 1-5 credits

1-5 credits of transferable courses as stated in the *Course Equivalency Guide (CEG)*. These courses must transfer to all Arizona public universities. See an advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the current CEG.

*If you are considering a bachelor of science degree at one of the Arizona public universities, it is important that you meet with an Advisor as early as possible.*

## 2. Science Pathway: 11-13 credit hours

Depending on the university you are planning to transfer to, please select one of the following:

### a. Northern Arizona University

MAT 172<sup>1</sup> Finite Mathematics (3), or higher:  
3-5 credits

BIO 201<sup>1</sup> Human Anatomy and Physiology I (4)  
*and*

BIO 202<sup>1</sup> Human Anatomy and  
Physiology II (4): 8 credits

(Before enrolling in the above courses see an advisor.)

### b. Arizona State University Main and Arizona State University West

(Please see an advisor for specific course requirements.)

MAT 212<sup>1</sup> Business Calculus (3), or higher: 3-5  
credits

Two semesters of any natural human language,  
other than English, including American Sign  
Language: 8 credits<sup>1</sup>.

### c. University of Arizona

(Please see an advisor for specific course requirements.)

MAT 172<sup>1</sup> Finite Mathematics (3), or higher:  
3-5 credits

Select a combination of 8 credits from the  
following:

Any natural human language, other than English,  
including American Sign Language: 0-8 credits<sup>1</sup>

Lab Science: 0-8 credits<sup>1</sup>

*If you are considering a bachelor of science degree at one of the Arizona public universities, it is important that you meet with an Advisor as early as possible.*

<sup>1</sup> Placement test and/or prerequisite required.



## Sociology – AA Degree

The Associate of Arts degree in Sociology is designed for transfer to the Sociology bachelor's degree at all Arizona public universities. Students completing this degree will transfer 61-64 credits to all Arizona public universities. *Requirements differ significantly among state universities. Students should see an Advisor to plan their program of study to avoid transfer difficulties.*

**Minimum credit hours required: 61**

### AGEC-A Requirements 35 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGECE requirements.

#### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

#### Mathematics (3-5)

- MAT 142<sup>1</sup> Applications of College Algebra (3)  
or higher

#### Arts/Humanities (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### Social/Behavioral Sciences (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral Sciences category.

#### Physical/Biological Sciences (8-10)

Any two courses may be taken from the Physical/ Biological Sciences category.

#### General Education Options (0-6)<sup>2</sup>

General Education Options may be selected from the above categories or from the Options category.

### Degree Core Requirements 26-29 Credit Hours

#### Required: 18 credit hours

- SOC 101 Introduction to Sociology (3)  
SOC 140 Marriage and the Family (3)  
SOC 142 Race and Ethnic Relations (3)  
SOC 210 Sociology of Gender (3)  
PSY 230<sup>3</sup> Introduction to Statistics (3)

#### Select one course from the following:

- SOC 125 Domestic Violence (3)  
SOC 130 Human Sexuality (3)  
SOC 132<sup>1</sup> Social Problems (3)  
SOC 200 Women and Health (3)

#### Language: 8 credit hours

Two semesters of any natural human language other than English, including American Sign Language.<sup>3</sup>

#### Electives: 0-3 credit hours

0-3 credits of transferable courses as stated in the *Course Equivalency Guide (CEG)*. These courses must transfer to all Arizona public universities. See an Advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the current CEG.

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECE.

<sup>3</sup> If the student has satisfied the language requirement through an approved proficiency exam, s/he can select up to 9 additional credit hours in psychology or 9 credit hours toward a minor area of study in psychology, political science, administration of justice, or education.

# Vocational Technology Education – AA Degree

The Vocational Technology Education program is designed for transfer to the Vocational Technology Education bachelor's degree at Northern Arizona University (NAU). Students completing this degree will transfer 60-64 credits to NAU. Students planning to transfer to a university other than NAU should see an Advisor. This degree results in an AGEC-A, which is transferable to all Arizona public universities. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 60**

## AGEC-A Requirements

### 35 Credit Hours

See page 20 for General Education Courses that can be used to satisfy AGEC requirements.

#### Composition (6)

ENG 101<sup>1</sup> College Composition I (3)

ENG 102<sup>1</sup> College Composition II (3)

#### Mathematics (5)

MAT 187<sup>1</sup> Pre-Calculus (5)

#### Arts/Humanities (6)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### Social/Behavioral Sciences (6)

POS 220<sup>1</sup> Arizona & National Constitution (3)

One more course, *not* in Political Science from the approved General Education courses in the Social/Behavioral Sciences category.

#### Physical/Biological Sciences (8-9)

Select one chemistry and one physics course from the following:

CHM 130<sup>1</sup> Fundamental Chemistry (4)

CHM 151<sup>1</sup> General Chemistry I (5)

PHY 107<sup>1</sup> Concepts of Physics (4)

PHY 111<sup>1</sup> College Physics I (4)

or

Complete 8 credits of physics below:

PHY 111<sup>1</sup> College Physics I (4)

PHY 112<sup>1</sup> College Physics II (4)

## General Education Options (0-6)<sup>2</sup>

General Education Options may be selected from the above categories or from the Options category.

## Degree Core Requirements

### 25-27 Credit Hours

#### Required: 3 credit hours

EDU 200 Introduction to Education (3)

#### Electives: 22-24 credit hours

Choose any 22-24 elective credit hours of transferable courses as stated in the *Course Equivalency Guide* (web at [www.coco.cc.az.us](http://www.coco.cc.az.us)) that transfer to NAU as DEC(VTE) or equivalent from any of the following areas:

AUT Automotive

DFT Drafting

ELT Electronics

ITC Industrial Technology Construction

MIT Manufacturing and Industrial Technology



ASSOCIATE OF ARTS

<sup>1</sup>Placement test and/or prerequisite required.

<sup>2</sup>0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGEC.





## Associate of Business Degree (ABus)

The Associate of Business degree is designed for transfer to the Business bachelor's degree at all Arizona public universities, with the exception of majors in Accounting and Computer Information Systems. Students interested in these programs or are planning to transfer to a university other than the Arizona public universities should see an Advisor. Students completing this degree will transfer 62-64 credits to all Arizona public universities. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 62**

### **AGEC-B Requirements** **35 credit hours**

See page 20 for General Education Courses that can be used to satisfy AGECE requirements.

*Note: Associate of Business degree core courses may not be used to satisfy AGECE-B requirements.*

#### **Composition (6)**

ENG 101<sup>1</sup> College Composition I (3)

ENG 102<sup>1</sup> College Composition II (3)

#### **Mathematics (3-5)**

MAT 212<sup>1</sup> Business Calculus (3) or higher

#### **Arts/Humanities (6-9)**

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

#### **Social/Behavioral Sciences (6-9)**

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral Sciences category.

#### **Physical/Biological Sciences (8-10)**

Any two courses may be taken from the Physical/Biological Sciences category.

#### **General Education Options (0-6)<sup>2</sup>**

General Education Options may be selected from the above categories or from the Options category.

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECE.



***Degree Core Requirements***  
***27-28 Credit Hours***

**Required: 24 credit hours**

- ACC 101<sup>1</sup> Principles of Financial Accounting (3)
- ACC 102<sup>1</sup> Principles of Managerial Accounting (3)
- BUS 214<sup>1</sup> Legal, Ethical, and Regulatory Issues  
in Business (3)
- BUS 232<sup>1</sup> Business Statistics & Analysis (3)
- CIS 120 Introduction to Computer Information  
Systems (3)
- ECN 204<sup>1</sup> Macroeconomic Principles (3)
- ECN 205 Microeconomic Principles (3)
- MAT 172<sup>1</sup> Finite Mathematics (3)

**Business Electives: 3-4 credit hours**

- BUS 204<sup>1</sup> Business Communications (3)
- or***
- CIS 220<sup>1</sup> Applications Programming I (4)

# Environmental Science – AS Degree

The Associate of Science in Environmental Science is designed for transfer to the Environmental Sciences bachelor's degree at Northern Arizona University (NAU). Students completing this degree will transfer 60-64 credits. This degree includes an AGECS which is transferable to all Arizona Public Universities. *Requirements differ significantly among state universities. Students should see an Advisor to plan their program of study to avoid transfer difficulties.*

**Minimum credit hours required: 60**

## AGEC-S Requirements 35 credit hours

See page 20 for General Education Courses that can be used to satisfy AGECS requirements.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (5)

- MAT 220<sup>1</sup> Calculus and Analytical Geometry I (5)

### Arts/Humanities (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Arts/Humanities category.

### Social/Behavioral (6-9)

Courses from two or more disciplines must be selected from the approved General Education courses in the Social/Behavioral category.

### Laboratory Sciences (10)

- CHM 151<sup>1</sup> General Chemistry I (5)  
CHM 152<sup>1</sup> General Chemistry II (5)

### General Education Options (0-6)<sup>2</sup>

General Education Options may be selected from the above categories or from the Options category.

## Degree Core Requirements 25-27

### Degree Emphasis Area for Biology - 19 credit hours

- BIO 181<sup>1</sup> Unity of Life I: Life of the Cell (4)  
BIO 182<sup>1</sup> Unity of Life II: Multicellular Organisms (4)  
CIS 120 Introduction to Computer Information Systems (3)  
MAT 160<sup>1</sup> Introduction to Statistics (3)  
MAT 187<sup>1</sup> Pre-Calculus (5)

### Degree Emphasis Area for Chemistry- 21 credit hours

- MAT 160<sup>1</sup> Introduction to Statistics (3)  
MAT 187<sup>1</sup> Pre-Calculus (5)  
MAT 230<sup>1</sup> Calculus & Analytic Geometry II (5)  
PHY 161<sup>1</sup> University Physics I (4)  
PHY 262<sup>1</sup> University Physics II (4)

### Degree Emphasis Area for Environmental Management- 20 credit hours

- BIO 181<sup>1</sup> Unity of Life I: Life of the Cell (4)  
BIO 182<sup>1</sup> Unity of Life II: Multicellular Organisms (4)  
CIS 120 Introduction to Computer Information Systems (3)  
MAT 160<sup>1</sup> Introduction to Statistics (3)  
PHI 105 Introduction to Ethics (3)  
POS 140 Introduction to Public Administration (3)

### Degree Emphasis Area for Applied Geology – 20 credit hours

- GLG 101 Physical Geology (4)  
GLG 102<sup>1</sup> Historical Geology (4)  
MAT 160<sup>1</sup> Introduction to Statistics (3)  
MAT 187<sup>1</sup> Pre-Calculus (5)  
PHY 111<sup>1</sup> College Physics I (4)  
or  
PHY 161<sup>1</sup> University Physics I (4)

### Degree Emphasis Area for Microbiology – 20 credit hours

- BIO 181<sup>1</sup> Unity of Life I: Life of the Cell (4)  
BIO 182<sup>1</sup> Unity of Life II: Multicellular Organisms (4)  
GLG 101 Physical Geology (4)  
MAT 160<sup>1</sup> Introduction to Statistics (3)  
MAT 187<sup>1</sup> Pre-Calculus (5)

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> 0-6 hours may be taken in the Options category as needed to complete the minimum 35 hours required for the AGECS.





### Elective credits: 4-6 credits

4-6 credits of Advisor approved transferable courses as stated in the *Course Equivalency Guide* (CEG). These courses must transfer to all three Arizona public universities. See an Advisor or check the college catalog Web site ([www.coco.cc.az.us](http://www.coco.cc.az.us)) for the CEG.

While the below courses are suggested, the student may take any course, which fulfills the requirements. Courses suggested for each emphasis area:

#### **Biology**

- BIO 105<sup>1</sup> Environmental Biology (4)
- BIO 109<sup>1</sup> Natural History of the Southwest (4)
- ENV 150<sup>1</sup> Introduction to Environmental Engineering (3)

#### **Chemistry**

- CHM 190 Environmental Chemistry (3)
- ENV 150<sup>1</sup> Introduction to Environmental Engineering (3)

#### **Environmental Management**

- BIO 105<sup>1</sup> Environmental Biology (4)
- BIO 109<sup>1</sup> Natural History of the Southwest (4)
- ENV 150<sup>1</sup> Introduction to Environmental Engineering (3)
- POS 233 Global Environmental Politics (3)

#### **Applied Geology**

- BIO 109<sup>1</sup> Natural History of the Southwest (4)
- CHM 190 Environmental Chemistry (3)
- ENV 150<sup>1</sup> Introduction to Environmental Engineering (3)

#### **Microbiology**

- BIO 109<sup>1</sup> Natural History of the Southwest (4)
- ENV 150<sup>1</sup> Introduction to Environmental Engineering (3)
- BIO 205<sup>1</sup> Microbiology (4)

*Note: BIO 205<sup>1</sup> Microbiology at CCC does not substitute for BIO 220 at NAU.*

<sup>1</sup>Placement test and/or prerequisite required.

# Administration of Justice – AAS Degree

The Administration of Justice AAS program is designed to prepare students to enter the workforce in the criminal justice arena. This program provides students with specific knowledge and skills, which will assist in securing employment in a wide variety of law enforcement and corrections/juvenile detention positions.

*Note: This occupational program is not intended for transfer to a university. Students thinking about pursuing a bachelor's degree in the criminal justice arena should work on the Associate of Arts degree in Administration of Justice.*

**Minimum credit hours required: 62**

## General Education Requirements 29 credit hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

- MAT 142<sup>1</sup> Applications of College Algebra (3)  
or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

#### Recommended:

- SOC 142 Race & Ethnic Relations (3)  
or  
SOC 210 Sociology of Gender (3)

### Physical/Biological Sciences (8-10)

Any approved General Education courses in the Physical/Biological Sciences category.

## Degree Core Requirements 33 credit hours

### Required: 33 credit hours

- AJS 101 Introduction to Administration of Justice (3)  
AJS 105 Juvenile Detention Studies (3)  
AJS 110 The Correction Function (3)  
AJS 120 Substantive Criminal Law (3)  
AJS 150 Rules of Criminal Procedure (3)  
AJS 160 Police Administration (3)  
AJS 200 Community Relations (3)  
AJS 220 Rules of Evidence (3)  
AJS 230 Crime and Deviant Behavior (3)  
AJS 240 Juvenile Justice Procedure (3)  
AJS 280 Criminology (3)

# Alternative Energy Technology – AAS Degree

The Associate of Applied Science in Alternative Energy Technology will provide students with the skills to pursue a career in the Alternative Energy field. The student will be instructed through mastery learning components and field study workshops arranged with local contractors. Students may apply credit hours earned in the Construction Technology Certificate toward completion of the AAS degree. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum hours required: 61**

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

- MAT 121<sup>1</sup> Intermediate Algebra with  
Review (4) or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

#### Required:

- ECN 205 Microeconomics Principles (3)

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category (4).

#### Recommended:

- PHY 107<sup>1</sup> Concepts of Physics I (4)

## Degree Core Requirements 36 credit hours

- CIS 120 Introduction to Computer  
Information Systems (3)  
DFT 125<sup>1</sup> Architectural Drafting I (3)  
ITC 100 Construction Safety (3)  
ITC 111 Uniform Building Code (3)  
ITC 120 Building the Human  
Environment (3)  
ITC 135 Solar Home Design (3)  
ITC 136 Photovoltaics and Wind Power (3)  
ITC 140 Blueprint Reading (3)  
ITC 150<sup>1</sup> Electrical Wiring I (3)  
ITC 180 Building Construction Methods I (3)  
ITC 185<sup>2</sup> Construction Methods II (3)  
MAT 124<sup>3</sup> Technical Problem Solving (3)



<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> May substitute ITC 298 with consent of Division Chair.

<sup>3</sup> May substitute MAT 187.





# Architectural Design Technology – AAS Degree

The Architectural Design Technology program trains students for architectural drafting careers in one of the fastest growing technologies in the United States. As an architectural design technician, the draftsman will interpret engineering data, develop sketches, designs, and working drawings for construction. Many technicians are valuable members of architectural/engineering teams in industry. Using the technology of Computer-Aided Drafting, students will develop drafting skills in both 2D and 3D. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

Minimum credit hours required: 64

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

- MAT 124<sup>1</sup> Technical Problem Solving (3)  
or  
MAT 187<sup>1</sup> Pre-calculus (5)

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

## Degree Core Requirements 39 Credit Hours

### Required: 33 credit hours

- DFT 110 Technical Drafting and CAD Fundamentals (3)  
DFT 125<sup>1</sup> Architectural Drafting I (3)  
DFT 150<sup>1</sup> AutoCAD 2D (3)  
DFT 200<sup>1</sup> AutoCAD 3D (3)  
DFT 225<sup>1</sup> Architectural Drafting I – CAD (3)  
DFT 260<sup>1</sup> Architectural Drafting II – CAD (3)  
ITC 111 Uniform Building Code (3)  
ITC 120 Building the Human Environment (3)  
ITC 140 Blueprint Reading & Estimating (3)  
ITC 180 Building Construction Methods I (3)  
ITC 210<sup>1</sup> Structural Design and Building Materials (3)

### Electives: 6 Credit Hours

Select six credit hours from the following courses:

- ITC 170 Plane Surveying & Building Layout (3)  
ITC 171 Electrical Construction Wiring (3)  
ITC 175 Mechanical Systems (3)  
ITC 185 Building Construction Methods II (3)

# Business Technologies

## – AAS Degree

The Business Technologies program is designed to prepare students to enter the business profession at an entry-level position with options in General Business Management, Small Business Management, and Accounting Specialist by providing them with general knowledge and skills specializing in an area of interest. The program allows students the option of selecting support courses to strengthen their overall education and courses in their area of special interest or job opportunity. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 63**

### General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

#### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)
- ENG 102<sup>1</sup> College Composition II (3)

#### Mathematics (3-5)

- BUS 100<sup>1</sup> Mathematics of Business (3)

or

- MAT 121<sup>1</sup> Intermediate Algebra with Review (4) or higher

#### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

#### Social/Behavioral Sciences (6)

- ECN 204<sup>1</sup> Macroeconomic Principles (3)
- ECN 205 Microeconomic Principles (3)

#### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

### Degree Core Requirements 38 Credit Hours

#### Required: 26 credit hours

- ACC 101<sup>1</sup> Principles of Financial Accounting (3)
- ACC 102<sup>1</sup> Principles of Managerial Accounting (3)
- ACC 210 Financial Statement Analysis (3)
- BUS 203 Business Law (3)
- or
- BUS 214<sup>1</sup> Legal, Ethical, and Regulatory Issues in Business (3)
- BUS 204<sup>1</sup> Business Communications (3)
- BUS 206 Principles of Management (3)
- BUS 207 Principles of Marketing (3)
- CIS 120 Introduction to Computer Information Systems (3)
- CIS 123 Introduction to Excel Spreadsheets (2)

### Specialization Options 12 Credit Hours

#### General Business Management

- ACC 109<sup>1</sup> Budget and Forecasting (3)
- BUS 216 Principles of Business Finance (3)
- Six credit hours selected from ACC or BUS courses in consultation with a business advisor (6)

#### Small Business Management

- BUS 211 Human Resources/Personnel Management (3)
- BUS 213 Small Business Management (3)
- BUS 216 Principles of Business Finance (3)
- Three credit hours selected from ACC or BUS courses in consultation with a business advisor (3)

#### Accounting Specialist

- Nine credit hours selected from ACC courses in consultation with a business advisor (9).
- Three credit hours selected from BUS or ACC courses in consultation with a business advisor (3).



<sup>1</sup> Placement test and/or prerequisite required.



# Carpentry Apprenticeship – AAS Degree

The Associate of Applied Science in Carpentry Apprenticeship will prepare students with the trade skills related to a career in carpentry. Completion of this degree involves completion of all carpenter Union-related qualification requirements of “step” trade-work experience as well as all union-related classroom training required to achieve “Journeyman” status. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 65**



## General Education Requirements 25 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

ENG 101<sup>1</sup> College Composition I (3)

ENG 102<sup>1</sup> College Composition II (3)

or

ENG 135 Career Communication (3)

ENG 136 Career Writing (3)

### Mathematics (3-5)

MAT 124<sup>1</sup> Technical Problem Solving (3)

or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

## Degree Core Requirements 40 Credit Hours

ITC 130 Introduction to the Carpentry Industry (5)

ITC 131 Carpentry Math Applications and Metrics (5)

ITC 132 Print Reading and Advanced Blueprints (5)

ITC 133 Concrete Formwork (5)

ITC 220 Framing Walls, Roofs and Decks (5)

ITC 221 Carpentry Industry Technology (5)

ITC 222 Interior Systems (5)

ITC 223 Interior Finish (5)

# Computer Software Technology – AAS Degree

The Associate of Applied Science Degree in Computer Software Technology is designed to prepare students for entry-level positions requiring computer software application skills and/or the ability to support end-users. The program provides students with general knowledge and skills appropriate for computer software-oriented occupations and the opportunity to select courses to strengthen their overall education. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

Minimum credit hours required: 62

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)  
ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

- BUS 100<sup>1</sup> Mathematics of Business (3)  
or  
MAT 121<sup>1</sup> Intermediate Algebra with Review (4), or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

#### Required:

- BUS 214<sup>1</sup> Legal, Ethical, & Regulatory Issues in Business (3)

Any approved General Education course in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

## Degree Core Requirements 37 Credit Hours

### Required: 30 credit hours

- BUS 204<sup>1</sup> Business Communications (3)  
CIS 111 Principles of Programming (1)  
CIS 112 Introduction to Windows (2)  
CIS 115 Introduction to the Internet (1)  
CIS 120 Introduction to Computer Information Systems (3)  
CIS 122 Introduction to MS Word (2)  
or  
CIS 124 Introduction to WordPerfect (2)  
CIS 123 Introduction to Excel Spreadsheets (2)  
CIS 125 Introduction to Databases (3)  
CIS 127<sup>1</sup> Introduction to Desktop Publishing (3)  
CIS 220<sup>1</sup> Computer Programming I (4)  
CIS 222<sup>1</sup> Advanced MS Word (2)  
or  
CIS 224<sup>1</sup> Advanced WordPerfect (2)  
CIS 230<sup>1</sup> Implementing and Supporting Windows (4)

### Degree Electives: 7 credit hours

Select seven credit hours from the following courses:

- ACC 206 Accounting & EDP Systems (3)  
ART 130<sup>1</sup> Computer Graphics I (3)  
CIS 113 Introduction to PowerPoint (1)  
CIS 117 Introduction to Web Page Design (2)  
CIS 223<sup>1</sup> Advanced Excel Spreadsheets (2)  
CIS 298 Special Topics (1-6)  
ELT 150<sup>1</sup> Basic Microcomputer Repair (2)  
~~INT 210 Internship I (1-6)~~



<sup>1</sup> Placement test and/or prerequisite required.





# Construction Technology – AAS Degree

The Associate of Applied Science degree in Construction Technology provides students with the skills to pursue a career in the construction trades or in construction management. Students will be instructed through mastery learning components and field study workshops arranged with local contractors. Students may apply credit hours earned in the Construction Technology Certificate toward completion of the AAS degree. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 64**

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)
- ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

- MAT 124<sup>1</sup> Technical Problem Solving (3)
- or
- MAT 187<sup>1</sup> Pre-calculus (5)

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4)

- PHY 107<sup>1</sup> Concepts of Physics (4)

## Degree Core Requirements 39 Credit Hours

**Required: 30 credit hours**

- DFT 125<sup>1</sup> Architectural Drafting I (3)
- DFT 150<sup>1</sup> AutoCAD 2D (3)
- ITC 111 Uniform Building Code (3)
- ITC 120 Building the Human Environment (3)
- ITC 140 Blueprint Reading & Estimating (3)
- ITC 171 Electrical Construction Wiring (3)
- ITC 175 Mechanical Systems (3)
- ITC 180 Building Construction Methods I (3)
- ITC 185 Building Construction Methods II (3)
- ITC 230 Construction Supervision, Scheduling and Project Management (3)

## Degree Electives: 9 credit hours

- DFT 200<sup>1</sup> AutoCAD 3D (3)
- DFT 225<sup>1</sup> Architectural Drafting I – CAD (3)
- ITC 210<sup>1</sup> Structural Design and Building Materials (3)

or

Any nine credits from Accounting or Business.  
A business ethics course is recommended.



# Early Childhood Education – AAS Degree

The Associate of Applied Science degree in Early Childhood Education is designed to prepare students for positions within the field of Early Childhood Education. Students may apply credit hours earned in the Certificate in Early Childhood Education toward this degree. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 62**

## General Education Requirements 26 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

- ENG 101 College Composition I (3)
- ENG 102 College Composition II (3)

### Mathematics (4)

- MAT 121 Intermediate Algebra with Review (4)

### Arts/Humanities (6)

Any approved General Education course in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

#### Required:

- PSY 101 Introduction to Psychology (3)
- Any approved General Education course in the Social/Behavioral Science category.

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

## Degree Core Requirements 36 Credit Hours

**Required: 30 credit hours**

- ECE 100 Introductions to Early Childhood Education (3)
- ECE 110 Early Childhood Curriculum (3)
- ECE 120 Health, Safety, and Nutrition for the Young Child (3)
- ECE 200 Child Guidance (3)<sup>1</sup>
- ECE 210 Creative Arts for the Young Child (3)
- ECE 220 Language Arts for the Young Child (3)
- ECE 230 Exploration and Discovery for the Young Child (3)
- ECE 240 School, Family, and Community Relations (3)<sup>2</sup>
- ECE 250 Children with Special Needs (3)<sup>3</sup>
- PSY 234 Child Growth and Development (3)<sup>4</sup>

## Degree Electives: 6 credit hours

Select six credit hours from the following courses:

- MAT 130 Math for Elementary School Teachers I (3)
- MAT 131 Math for Elementary School Teachers II (3)
- EDU 200 Introduction to Education (3)
- SPC 100 Fundamentals of Speech Communication (3)
- POS 220 Arizona & National Constitution (3)

<sup>1</sup> Prerequisite of PSY 101.

<sup>2</sup> Prerequisite of ECE 100.

<sup>3</sup> Prerequisite of PSY 234.

<sup>4</sup> Prerequisite of PSY 101 or consent of instructor.

# Fire Science – AAS Degree



The Fire Science program is designed to prepare students to enter the Fire Science profession by providing them with knowledge and skills which can be used to enter a wide variety of positions. The program allows students the option of selecting courses emphasizing emergency medical, fire suppression, or fire prevention.

**Minimum credit hours required: 68**

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

ENG 101<sup>1</sup> College Composition I (3) *and*

ENG 102<sup>1</sup> College Composition II (3)

*or*

ENG 135 Career Communications (3) *and*

ENG 136<sup>1</sup> Career Writing (3)

### Mathematics (3-5)

MAT 121<sup>1</sup> Intermediate Algebra with Review (4)  
or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4)

BIO 105<sup>1</sup> Environmental Biology (4)

## Degree Core Requirements 43 Credit Hours

### Required: 34 credit hours

- EMS 131 Emergency Medical Technician (7)
- FSC 135 Fundamentals of Fire Prevention (3)
- FSC 136 Fire Apparatus & Hydraulics (4)
- FSC 138 Hazardous Materials - First Responder (3)
- FSC 180 Fire Fighter I & II (8)
- FSC 236 Firefighter Occupational Safety (3)
- FSC 238<sup>1</sup> Emergency Scene Management (3)
- FSC 239<sup>1</sup> Fire Department Company Officer (3)

### Degree Electives: 9 credit hours

Select nine credit hours from the following:

- BUS 209 Principles of Supervision (3)
- BUS 211 Human Resources/Personnel Management (3)
- EMS 211<sup>1</sup> Emergency Medical Technician Refresher (2)
- EMS 252 Intermediate Emergency Medical Technician I (13)
- FSC 101 Fire Service Orientation & Indoctrination (2)
- FSC 137 Hazardous Materials-First Responder Awareness (0.5)
- FSC 233 Wildland Fire Suppression (3)
- FSC 234 Fire Investigation (3)
- FSC 235<sup>1</sup> Fire Protection Systems (3)
- FSC 241 Firefighter Safety & Building Construction (3)

# Hospitality Management – AAS Degree

The Hospitality Management program prepares students for entry-level management careers in the hospitality industry. Students completing this degree will develop knowledge and skills necessary to compete in one of Arizona's fastest growing businesses. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 61**

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

ENG 101<sup>1</sup> College Composition I (3) *and*

ENG 102<sup>1</sup> College Composition II (3)

*or*

ENG 135 Career Communications (3) *and*

ENG 136<sup>1</sup> Career Writing (3)

### Mathematics (3-5)

BUS 100<sup>1</sup> Mathematics of Business (3)

*or*

MAT 121<sup>1</sup> Intermediate Algebra with  
Review (4), or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

## Degree Core Requirements 36 Credit Hours

### Required: 27 credit hours

BUS 206 Principles of Management (3)

BUS 209 Principles of Supervision (3)

BUS 218 Customer Service (3)

CIS 120 Introduction to Computer  
Information Systems (3)

HRM 100 Introduction to Hospitality (3)

HRM 235 Hospitality Law (3)

SPC 100 Fundamentals of Speech  
Communication (3)

### Hotel Emphasis:

HRM 210 Guest Service Management (3)

HRM 220 Property Management (3)

### Restaurant Emphasis:

HRM 140 Food Production Concepts (3)

HRM 240 Commercial Food Production (3)

### Specialization Options: 9 Credit Hours

Select nine credit hours from the following:

ACC 101<sup>1</sup> Principles of Financial Accounting (3)

BUS 204<sup>1</sup> Business Communications (3)

BUS 211 Human Resources/Personnel  
Management (3)

BUS 214<sup>1</sup> Legal, Ethical & Regulatory Issues in  
Business (3)

ECN 204<sup>1</sup> Macroeconomic Principles (3)

ECN 205 Microeconomic Principles (3)

HRM 170 Hospitality Information Technology (3)

HRM 225<sup>1</sup> Hospitality Accounting (3)



<sup>1</sup> Placement test and/or prerequisite required.





# Office Information Systems – AAS Degree

The Office Information Systems program is designed to prepare students to enter a professional office at an entry-level position. The program provides students with an understanding of technology and basic workplace skills that can be applied to a wide variety of office positions. The program allows students the option of selecting support courses to strengthen their overall education and courses in their area of special interest or job opportunity. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 66**

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

- ENG 101<sup>1</sup> College Composition I (3)
- ENG 102<sup>1</sup> College Composition II (3)

### Mathematics (3-5)

- BUS 100<sup>1</sup> Mathematics of Business (3)
- or
- MAT 121<sup>1</sup> Intermediate Algebra with Review (4), or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

## Degree Core Requirements 41-43 Credit Hours

### Required: 34-35 credit hours

- ACC 100 Practical Accounting Procedures (5)
- OIS 200<sup>1</sup> Professional Office Skills (3)
- BUS 111<sup>1</sup> Business English (3)
- BUS 211 Human Resources/Personnel Management (3)
- CIS 102 Computer Literacy (2)
- or
- CIS 120 Introduction to Computer Information Systems (3)
- CIS 115 Introduction to the Internet (1)
- CIS 123 Introduction to Excel Spreadsheets (2)
- CIS 124 Introduction to WordPerfect (2)
- or
- CIS 122 Introduction to MS Word (2)
- CIS 125 Introduction to Databases (3)
- OIS 110 Keyboarding Review and Speed (3)
- OIS 130<sup>1</sup> Machine Transcription (3)
- OIS 210<sup>1</sup> Keyboarding with Applications (3)
- LDR 115 Workplace Ethics (1)

## Specialization Options — 7-8 Credit Hours General Office Information

7-8 credit hours of any advisor-approved courses consistent with degree goals/focus.

### Medical

- AHS 131 Medical Terminology (3)
  - OIS 230<sup>1</sup> Medical Transcription (3)
- Two credit hours of any advisor-approved courses consistent with degree goals/focus.

### Legal

- OIS 240<sup>1</sup> Legal Transcription (3)
- AJS 101 Introduction to Administration of Justice (3)

Two credit hours of any advisor-approved courses consistent with degree goals/focus.

## Optional — 1-6 Credit Hours

- INT 210<sup>2</sup> Internship I (1-6)

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> It is strongly recommended that students enroll in this optional course in addition to the required credit hours for completion of the AAS degree in Office Information Systems. Please see catalog for course description.



# Sheet Metal Apprenticeship – AAS Degree

The Associate of Applied Science in Sheet Metal Apprenticeship will prepare students with the trade skills related to a career in sheet metal. Completion of this degree involves completion of all sheet metal union-related qualification requirements of “step” trade-work experience as well as all union-related classroom training required to achieve “Journeyman” status. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

## Core Requirements — 50 Credit Hours

ITC	145	Sheet Metal I (5)
ITC	146	Sheet Metal II (5)
ITC	147	Sheet Metal III (5)
ITC	148	Sheet Metal IV (5)
ITC	149	Sheet Metal V (5)
ITC	245	Sheet Metal VI (5)
ITC	246	Sheet Metal VII (5)
ITC	247	Sheet Metal VIII (5)
ITC	248	Sheet Metal IX (5)
ITC	249	Sheet Metal X(5)

Minimum hours required: 75

## General Education Requirements 25 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

ENG 101<sup>1</sup> College Composition I (3) *and*  
ENG 102<sup>1</sup> College Composition II (3)

*or*

ENG 135 Career Communications (3) *and*  
ENG 136<sup>1</sup> Career Writing (3)

### Mathematics (3-5)

MAT 124<sup>1</sup> Technical Problem Solving (3)  
*or higher*

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Any approved General Education courses in the Social/Behavioral Sciences category.

### Physical/Biological Sciences (4-5)

Any approved General Education course in the Physical/Biological Sciences category.

ASSOCIATE OF  
APPLIED SCIENCE

<sup>1</sup> Placement test and/or prerequisite required.

# Associate of General Studies (AGS)

The Associate of General Studies Degree is designed for students who wish to broaden their knowledge, but have no university major or vocational goal in mind. This degree requires a minimum of 60 credit hours with a cumulative CCC grade point average of 2.00 or higher. Students must complete a minimum of 25 credit hours of General Education courses but are otherwise free to explore new areas of interest. A maximum of 12 credit hours may be completed in courses numbered below 100. This degree is not recommended for students planning to transfer to a university. The AGS Degree is intended as an alternative degree which recognizes the mission of the community college that education is a lifelong process.

Minimum credit hours required: 60

## General Education Requirements 25-27 Credit Hours

See page 20 for courses that will satisfy the General Education requirements below.

### Composition (6)

ENG 101<sup>1</sup> College Composition I (3) *and*

ENG 102<sup>1</sup> College Composition II (3)

*or*

ENG 135 Career Communications (3) *and*

ENG 136<sup>1</sup> Career Writing (3)

### Mathematics (3-5)

MAT 121<sup>1</sup> Intermediate Algebra with Review (4)  
or higher

### Arts/Humanities (6)

Any approved General Education courses in the Arts/Humanities category.

### Social/Behavioral Sciences (6)

Courses at the 100-level or above from anthropology, history, political science, psychology, social geography, and/or sociology.

### Physical/Biological Sciences (4-5)

One course at the 100-level or above chosen from astronomy, botany, chemistry, geology, physical geography, physics, science or zoology.

### Electives — 33-36 Credit Hours

Select 33-36 credit hours either in a variety of disciplines or in an area of concentration.

# Accounting Technician Certificate

The Accounting Technician Certificate program is designed to prepare students for employment as full-charge bookkeepers and accounting technicians. Included in the curriculum are practical applications and computer knowledge. Students may apply earned accounting credit hours of this program toward the Associate of Applied Science degree in Business Technologies with an Accounting Specialization. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

Minimum credit hours required: 33

## Certificate Requirements 33-35 Credit Hours

Nine credit hours selected from ACC courses in consultation with a business advisor (9)

ACC 100 Practical Accounting Procedures (5)  
or

ACC 101<sup>1</sup> Principles of Accounting I (3)

ACC 206 Accounting and EDP Systems (3)

ACC 210 Financial Statement Analysis (3)

BUS 100<sup>1</sup> Mathematics of Business (3)

BUS 204<sup>1</sup> Business Communications (3)

CIS 123 Introduction to Excel Spreadsheets (2)

CIS 124 Introduction to Word Processing (2)

CIS 223<sup>1</sup> Advanced Excel Spreadsheets (2)

ENG 101<sup>1</sup> College Composition I (3)

# Alternative Energy Technician Certificate

## Intermediate Certificate

The Intermediate Certificate in Alternative Energy is designed to introduce the student to the construction and electrical industries and, provide the foundations for hazard recognition and safety. Students are introduced to design issues associated with home construction, community development and passive solar design. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

Minimum credit hours required: 22

## Certificate Requirements 22 Credit Hours

BUS 111 Business English (3)

ITC 100 Construction Safety (3)

ITC 120 Building the Human Environment (3)

ITC 135 Solar Home Design (3)

ITC 150 Residential Wiring (3)

ITC 180 Construction Methods I (3)

MAT 121<sup>1</sup> Intermediate Algebra with Review (4)

## Advanced Certificate

The Advanced Certificate in Alternative Energy improves the student's expertise and knowledge in construction from an economic perspective. This certificate advances electrical skills with particular applications in photovoltaic and windpower electrical generation.

Minimum credit hours required: 47

## Certificate Requirements 47 Credit Hours

Completion of the Intermediate Certificate (22)

CIS 120 Introduction to Computer Information Systems (3)

DFT 110 Technical Drafting and CAD Fundamentals (3)

ECN 205 Micro Economics Principles (3)

ITC 136 Photovoltaics and Wind Power (3)

ITC 140 Blueprint Reading (3)

ITC 185<sup>2</sup> Construction Methods II (3)

MAT 124<sup>1</sup> Technical Problem Solving (3)

PHY 107<sup>1</sup> Concepts of Physics (4)

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> May substitute ITC 298 with consent of Division Chair.





## Assisted Living Certificate

This certificate is designed for individuals seeking an introduction to the role of the Care-Giver in the Assisted Living environment. This includes those basic skills outlined by the Arizona State Department of Health Services - resident advocacy, nutrition and personal care, assisting the resident with self-medication, documentation, team collaboration, communication, promotion of socialization and recreation, rehabilitation, environmental safety, planning services, business practices and personnel management, and the policies, procedures, laws and regulation governing assisted living. Prepares the student for entry-level employment in the growing assisted living industry.

**Minimum credit hours required: 27**

### ***Certificate Requirements*** **27- 28 Credit Hours**

- AHS 100 Introduction to Health Services (3)
- AHS 105 Communication and Behavior in the Health Care Setting (3)
- AHS 110 Health Care Ethics and Law (3)
- AHS 131 Medical Terminology (3)
- AHS 140 Care-Giving In Assisted Living (3)
- MAT 057 Math for Allied Health Occupations (3)
- BIO 160 Introduction to Human Physiology and Anatomy (4)
- ENG 100<sup>1</sup> Fundamentals of Composition (3)
- or*
- ENG 101<sup>1</sup> English Composition I (3)
- CIS 102 Computer Literacy (2)
- or*
- CIS 120 Introduction to Computer Information Systems (3)

<sup>1</sup> Placement test and/or prerequisite required.

# Carpentry Apprenticeship Certificates

## Intermediate Certificate

The Intermediate Certificate in Carpentry is designed to introduce the student to the carpentry industry. It provides the foundational classes in the carpentry and construction trades as well as introduces field techniques and applications in a progressively complicated sequence. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

### Certificate Requirements 20 Credit Hours

- ITC 130 Introduction to the Carpentry Industry (5)
- ITC 131 Carpentry Math Applications and Metrics (5)
- ITC 132 Print Reading and Advanced Blueprints (5)
- ITC 133 Concrete Formwork (5)

## Advanced Certificate

The Advanced Certificate in Carpentry is designed to continue to improve the student's expertise in the construction industry. It provides more advanced classes in the carpentry and construction trades as well as field techniques and applications in a progressively complicated sequence.

### Certificate Requirements 40 Credit Hours

- Completion of the Intermediate Certificate (20)
- ITC 220 Framing Walls, Roofs and Decks (5)
- ITC 221 Carpentry Industry Technology (5)
- ITC 222 Interior Systems (5)
- ITC 223 Interior Finish (5)





# Clerical Certificate

The Clerical Certificate program is designed to introduce students to a professional office setting and enhance office/clerical skills and knowledge. Students may apply credit hours earned in this program toward the Associate of Applied Science degree in Office Information Systems. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 26**

## Certificate Requirements 26-29 Credit Hours

- BUS 100<sup>1</sup> Mathematics of Business (3)
- BUS 111 Business English (3)
- CIS 115 Introduction to the Internet (1)

- CIS 102 Computer Literacy (2)
- or
- CIS 120 Introduction to Computer Information Systems (3)
- CIS 124 Introduction to WordPerfect (2)
- or
- CIS 122 Introduction to MS Word (2)
- CIS 222<sup>1</sup> Advanced MS Word (2)
- or
- CIS 224<sup>1</sup> Advanced WordPerfect (2)
- OIS 110 Keyboarding Review and Speed (3)
- OIS 130<sup>1</sup> Machine Transcription (3)
- OIS 200<sup>1</sup> Professional Office Skills (3)
- OIS 210<sup>1</sup> Keyboarding and Applications (3)
- LDR 115 Workplace Ethics (1)

## Optional — 6 Credit Hours

- INT 210<sup>2</sup> Internship I (1-6)

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> It is strongly recommended that students enroll in this optional course in addition to the required credit hours for completion of the Clerical Certificate. Please see catalog for course description.

# Computer Software Technology Certificates

## Basic Certificate

The Computer Software Basic Certificate is designed to develop entry-level skills related to computer application software packages and to enhance communication skills and professional readiness. Students may apply credit hours earned in this program toward the Associate of Applied Science degree in Computer Software Technology. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

Minimum credit hours required: 15

### Certificate Requirements 15-16 Credit Hours

BUS 100<sup>1</sup> Mathematics of Business (3)

BUS 111 Business English (3)

CIS 102 Computer Literacy (2)

or

CIS 120 Introduction to Computer Information Systems (3)

CIS 112 Introduction to Windows (2)

CIS 115 Introduction to the Internet (1)

CIS 122 Introduction to MS Word (2)

or

CIS 124 Introduction to WordPerfect (2)

CIS 123 Introduction to Excel Spreadsheets (2)

Note - Keyboarding skills may enhance success.

## Advanced Certificate

The Computer Software Advanced Certificate program is designed for those students who have completed the basic certificate and desire to further enhance their computer, communication, and professional readiness skills. Students may apply some of the credit hours earned in this program toward the Associate of Applied Science degree in Computer Software Technology.

Minimum credit hours required: 33

### Certificate Requirements 26-27 Credit Hours

Completion of the Basic Computer Software Technology Certificate (15-16)

CIS 125 Introduction to Databases (3)

CIS 222<sup>2</sup> Advanced MS Word (2)

or

CIS 224<sup>2</sup> Advanced WordPerfect (2)

CIS 223<sup>2</sup> Advanced Excel Spreadsheets (2)

ENG 100<sup>1</sup> Fundamentals of Composition (3)

or

ENG 101<sup>1</sup> College Composition I (3)

LDR 115 Workplace Ethics (1)

### Electives — 7 Credit Hours

Select a minimum of seven credit hours from the following courses:

ART 130 Computer Graphics (3)

BUS 204<sup>1</sup> Business Communications (3)

CIS 113 Introduction to PowerPoint (1)

CIS 117 Introduction to Web Page Design (2)

CIS 127<sup>2</sup> Introduction to Desktop Publishing (3)

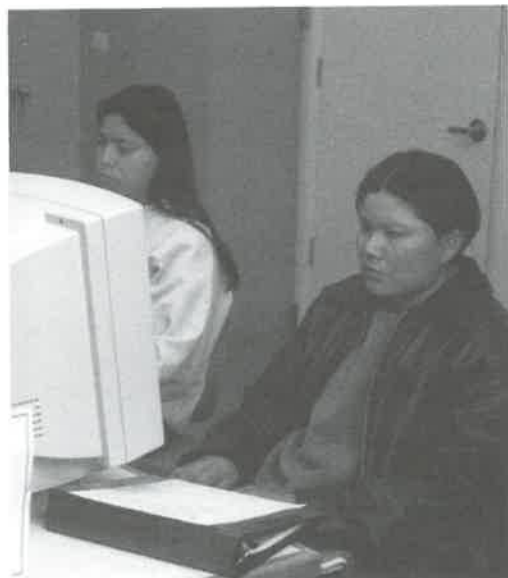
CIS 220<sup>1</sup> Computer Programming I (4)

CIS 230<sup>1</sup> Implementing and Supporting Windows (4)

CIS 298<sup>2</sup> Special Topics (1-6)

ELT 150<sup>1</sup> Basic Microcomputer Repair (2)

INT 210<sup>1</sup> Internship I (1-6)



<sup>1</sup> Placement test and/or prerequisite required

<sup>2</sup> It is strongly recommended that students enroll in this optional course in addition to the required credit hours for completion of the Clerical Certificate. Please see catalog for course description.







## Construction Technology Certificate

The Construction Technology Certificate provides students with a technical foundation required to compete in today's construction field. Students will be instructed through mastery learning components and field study workshops arranged with local contractors. Students may apply credit hours earned in this program toward the Associate of Applied Science degree in Construction Technology. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 21**

### *Certificate Requirements* **21-23 Credit Hours**

- DFT 125<sup>1</sup> Architectural Drafting I (3)
  - ENG 100<sup>1</sup> Fundamentals of Composition (3)
  - ITC 120 Building the Human Environment (3)
  - ITC 140 Blueprint Reading and Estimating (3)
  - ITC 180 Building Construction Methods I (3)
  - ITC 185 Building Construction Methods II (3)
  - MAT 124<sup>1</sup> Technical Problem Solving (3)
- or*
- MAT 187<sup>1</sup> Pre-calculus (5)



<sup>1</sup> Placement test and/or prerequisite required.

## Drafting – Computer-Aided Drafting Certificate

The Computer-Aided Drafting certificate will provide students with a solid foundation in the field of CAD as a tool for various drafting technologies. Those students who are exploring the field of Computer-Aided Drafting or are in need of developing computerized skills will find this certificate challenging and beneficial for future applications. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

Minimum credit hours required: 9

### Certificate Requirements 9 Credit Hours

CIS	120	Introduction to Computer Information Systems (3)
DFT	150 <sup>1</sup>	AutoCAD 2D (3)
DFT	200 <sup>1</sup>	AutoCAD 3D (3)

## Drafting – Architectural CAD Technician Certificate

The Architectural CAD Technician certificate will provide students with a solid foundation in the field of Architectural Construction Drafting. This certificate can lead to an AAS degree in Architectural Design Technology. The fundamentals of drafting are performed through mastery learning and hands-on application. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

Minimum credit hours required: 24

### Certificate Requirements 24 Credit Hours

DFT	110	Technical Drafting and CAD Fundamentals (3)
DFT	125 <sup>1</sup>	Architectural Drafting I (3)
DFT	150 <sup>1</sup>	AutoCAD 2D (3)
DFT	200 <sup>1</sup>	AutoCAD 3D (3)
DFT	225 <sup>1</sup>	Architectural Drafting I – CAD (3)
DFT	260 <sup>1</sup>	Architectural Drafting II – CAD (3)
ITC	120	Building the Human Environment (3)
ITC	140	Blueprint Reading and Estimating (3)



<sup>1</sup> Placement test and/or prerequisite required.



## Early Childhood Education – Certificate

The certificate in Early Childhood Education is designed to prepare students for positions within the field of Early Childhood Education. Students may apply credit hours earned in the Certificate toward the Associate of Applied Science degree in Early Childhood Education. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 33**

### *Certificate Requirements* **33 Credit Hours**

- ECE 100 Introductions to Early Childhood Education (3)
- ECE 110 Early Childhood Curriculum (3)
- ECE 120 Health, Safety, and Nutrition for the Young Child (3)
- ECE 200<sup>1</sup> Child Guidance (3)
- ECE 210 Creative Arts for the Young Child (3)
- ECE 220 Language Arts for the Young Child (3)
- ECE 230 Exploration and Discovery for the Young Child (3)
- ECE 240<sup>2</sup> School, Family, and Community Relations (3)
- ECE 250<sup>3</sup> Children with Special Needs (3)
- PSY 101 Introduction to Psychology (3)
- PSY 234<sup>4</sup> Child Growth and Development (3)

<sup>1</sup> Prerequisite of PSY 101.

<sup>2</sup> Prerequisite of ECE 100.

<sup>3</sup> Prerequisite of PSY 234.

<sup>4</sup> Prerequisite of PSY 101 or consent of instructor.



# Electrical Construction Wiring Training Certificates

## First Year Certificate

This certificate is designed for students seeking progressive training in electrical wiring in both residential and commercial construction. This program teaches the skills and knowledge of the first year introductory level.

**Minimum credit hours required: 13**

### *Certificate Requirements* **13 Credit Hours**

INT 210 Internship I (1-6)  
ITC 150 Electrical Wiring I (3)  
ITC 151<sup>1</sup> Electrical Wiring II (4)

## Second Year Certificate

This certificate is designed to continue the training in electrical construction wiring. This program continues from the first year with skills and knowledge necessary in a second year job training program.

**Minimum credit hours required: 26**

### *Certificate Requirements* **26 Credit Hours**

Completion of First Year Electrical Certificate or equivalent (13)  
ITC 160<sup>1</sup> Electrical Wiring III (3)  
ITC 161 Electrical Wiring IV (4)  
INT 210 Internship I (1-6)

## Third Year Certificate

This certificate is designed to continue the training in electrical construction wiring. This program continues from the second year with skills and knowledge necessary in a third year job training program.

**Minimum credit hours required: 40**

### *Certificate Requirements* **40 Credit Hours**

Completion of Second Year Electrical Certificate or equivalent (26)  
ITC 250<sup>1</sup> Electrical Wiring V (4)  
ITC 251<sup>1</sup> Electrical Wiring VI (4)  
INT 210 Internship I (1-6)

## Fourth Year Certificate

This certificate is designed to continue the training in electrical construction wiring. This final year completes the training in the skills and knowledge necessary to compete in the electrical construction wiring profession.

**Minimum credit hours required: 55**

### *Certificate Requirements* **55 Credit Hours**

Completion of Third Year Electrical Certificate or equivalent (40)  
ITC 260<sup>1</sup> Electrical Wiring VII (4)  
ITC 261<sup>1</sup> Electrical Wiring VIII (5)  
INT 210 Internship I (1-6)

<sup>1</sup> Placement test and/or prerequisite required.





## Employment Success Certificate

The Employment Success Certificate is designed to provide students with a basic foundation in essential skills for the workplace. Students may apply the skills gained from this program to other certificates or degrees. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 16-25**

### Certificate Requirements 16 Credit Hours

- BUS 111 Business English (3)
- CIS 102 Computer Literacy (2)
- LDR 115 Workplace Ethics (1)
- HDE 102 College Study Skills (3)
- HDE 104 Employment Success Strategies (3)
- MAT 055 Arithmetic Review (3)
- OIS 100 Keyboarding (1)

### Optional Content Areas 0-9 Credit Hours

#### Hospitality - Hotel Emphasis:

- HRM 100 Introduction to Hospitality (3)
- HRM 210 Guest Service Management (3)
- BUS 218 Customer Service (3)

#### Hospitality - Restaurant Emphasis:

- HRM 100 Introduction to Hospitality (3)
- HRM 140 Food Production Concepts (3)
- BUS 218 Customer Service (3)

#### Clerical:

- OIS 110 Keyboarding Review and Speed (3)
- OIS 200 Professional Office Skills (3)
- BUS 218 Customer Service (3)

#### Computer Software:

- CIS 112 Introduction to Windows (2)
- CIS 120 Introduction to Computer Information Systems (3)
- CIS 122 Introduction to MS Word (2)
- CIS 123 Introduction to Excel Spreadsheets (2)

## Fire Science Certificates

### Intermediate Certificate

The Fire Science Intermediate Certificate program is designed to introduce basic skills and to assist those who desire to enhance their abilities on the job. Included in the curriculum are practical applications and knowledge. Students may apply credit hours earned in this program toward the Associate of Applied Science degree in Fire Science.

**Minimum credit hours required: 17**

### Certificate Requirements 17 Credit Hours

- FSC 138 Hazardous Materials - First Responder (3)
- FSC 180 Firefighter I & II (8)
- FSC 236 Firefighter Occupational Safety (3)
- FSC 238<sup>1</sup> Emergency Scene Management (3)

### Advanced Certificate

The Fire Science Advanced Certificate program is designed to introduce basic skills and to assist those who desire to enhance their abilities on the job. Included in the curriculum are practical applications and knowledge. Students may apply the hours of this program toward the Associate of Applied Science degree in Fire Science.

**Minimum credit hours required: 40**

### Certificate Requirements 40 Credit Hours

- Completion of the Fire Science Intermediate Certificate (17)
- EMS 131<sup>1</sup> Emergency Medical Technician (7)
- FSC 135 Fundamentals of Fire Prevention (3)
- FSC 136 Fire Apparatus & Hydraulics (4)
- FSC 234 Fire Investigation (3)
- FSC 239<sup>1</sup> Fire Department Company Officer (3)
- FSC 241 Firefighter Safety & Building Construction (3)

<sup>1</sup> Placement test and/or prerequisite required.

# Hospitality Certificates

The Hospitality program prepares students for entry-level positions in the hospitality industry. Students completing this certificate will develop fundamental skills in which to compete in one of Arizona's fastest growing businesses. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

## Intermediate Certificate

**Minimum credit hours required: 27**

### Certificate Requirements

#### 27 Credit Hours

ENG 135 Career Communication (3)

or

BUS 111 Business English (3)

BUS 100<sup>1</sup> Mathematics of Business (3)

BUS 209 Principles of Supervision (3)

BUS 218 Customer Service (3)

CIS 120 Introduction to Computer Science (3)

HRM 100 Introduction to Hospitality (3)

SPC 100 Speech Communication (3)

#### Restaurant Emphasis:

HRM 140 Food Production Concepts (3)

HRM 170 Hospitality Information Technology (3)

or

#### Hotel Emphasis:

HRM 210 Guest Service Management (3)

HRM 220 Property Management (3)

## Advanced Certificate

**Minimum credit hours required: 39**

### Certificate Requirements

#### 39 Credit Hours

Completion of the Intermediate Hospitality Administration Certificate (27)

ACC 101<sup>1</sup> Principles of Financial Accounting (3)

BUS 211 Human Resources/  
Personnel Management (3)

HRM 170 Hospitality Information  
Technology (3)

HRM 225<sup>1</sup> Hospitality Accounting (3)

HRM 235 Hospitality Law (3)



<sup>1</sup> Placement test and/or prerequisite required.



## Legal Secretary Certificate

The Legal Secretary Certificate program is designed to give students an introduction to legal secretarial skills and to assist those students who desire to enhance their abilities on the job. Included in the curriculum are practical applications and knowledge. Students may apply credit hours earned in this program toward the Associate of Applied Science degree in Office Information Systems. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 35-36**

### Certificate Requirements

#### 35-36 Credit Hours

- AJS 101 Introduction to Administration of Justice (3)
- AJS 260 Constitutional Law (3)
- BUS 100<sup>1</sup> Mathematics of Business (3)
- BUS 111 Business English (3)

- OIS 200 Professional Office Skills (3)
- CIS 115 Introduction to the Internet (1)
- CIS 102 Computer Literacy (2)
- or
- CIS 120 Introduction to Computer Information Systems (3)
- CIS 122 Introduction to MS Word (2)
- or
- CIS 124 Introduction to WordPerfect (2)
- CIS 222<sup>1</sup> Advanced MS Word (2)
- or
- CIS 224<sup>1</sup> Advanced WordPerfect (2)
- OIS 110 Keyboarding Review and Speed (3)
- OIS 130<sup>1</sup> Machine Transcription (3)
- OIS 210<sup>1</sup> Keyboarding with Applications (3)
- OIS 240<sup>1</sup> Legal Transcription (3)
- LDR 115 Workplace Ethics (1)

### Optional — 1-6 Credit Hours

- INT 210<sup>2</sup> Internship I (1-6)

<sup>1</sup> Placement test and/or prerequisite required.

<sup>2</sup> It is strongly recommended that students enroll in this optional course in addition to the required credit hours for completion of the Legal Secretary Certificate. Please see catalog for course description.

# Manufacturing/Welding – High Pressure Pipe and Tube Welding Certificate

**Certificate is only offered in Page**

This certificate is designed for students seeking progressive training as a skilled High Pressure Pipe and Tube Welder for refineries, nuclear power and coal fired generating units, paper mills, boilers, and processing plants. This program teaches the skills and technical knowledge required to compete in today's high-tech welding industry. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 39**

**Certificate Requirements**  
**39 Credit Hours**

- HDE 136<sup>1</sup> Self Management Skills II (2)
- HDE 141 The Job Search (1)
- MAT 124<sup>1</sup> Technical Problem Solving (3)
- MIT 100 Safety in Industry (2)
- MIT 105 Metallurgy (1)
- MIT 120 Rigging (1)
- MIT 140 Arc Welding I (3)
- MIT 141<sup>1</sup> Arc Welding II (3)
- MIT 145 Welding Gases, Flows, Rates, Filler Metals (2)
- MIT 165 Welding Tools and Equipment (2)
- MIT 170 Welding Symbols/Blueprint Interpretation (2)
- MIT 200 Quality Control – Manufacturing (3)
- MIT 205 Weld Testing and Inspection (2)
- MIT 210<sup>1</sup> Layout and Fitting Techniques (3)
- MIT 282<sup>1</sup> Pipe Welding I (3)
- MIT 283<sup>1</sup> Pipe Welding II (3)
- MIT 295 Manufacturing Lab (3)

# Manufacturing/Welding – Pipe Welding Certificate

**Certificate is only offered in Page**

This certificate is designed for students seeking progressive training as a skilled Pipe Welder for the cross country pipe line industry. This program teaches the skills and technical knowledge required to compete in today's high-tech welding industry. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 33**

**Certificate Requirements**  
**33 Credit Hours**

- HDE 136<sup>1</sup> Self Management Skills II (2)
- HDE 141 The Job Search (1)
- MAT 124<sup>1</sup> Technical Problem Solving (3)
- MIT 100 Safety in Industry (2)
- MIT 105 Metallurgy (1)
- MIT 120 Rigging (1)
- MIT 140 Arc Welding I (3)
- MIT 141<sup>1</sup> Arc Welding II (3)
- MIT 145 Welding Gases, Flows, Rates, Filler Metals (2)
- MIT 165 Welding Tools and Equipment (2)
- MIT 170 Welding Symbols/Blueprint Interpretation (2)
- MIT 205 Weld Testing and Inspection (2)
- MIT 210<sup>1</sup> Layout and Fitting Techniques (3)
- MIT 282<sup>1</sup> Pipe Welding I (3)
- MIT 295 Manufacturing Lab (3)



<sup>1</sup> Placement test and/or prerequisite required.





# Manufacturing/Welding – Structural Welding Certificate

## Certificate is only offered in Page

This certificate is designed for students seeking progressive training as a skilled Structural Welder in the field of construction. This program teaches the skills and technical knowledge required to compete in today's high-tech welding industry. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.



Minimum credit hours required: 30

## Certificate Requirements 30 Credit Hours

- HDE 136<sup>1</sup> Self Management Skills II (2)
- HDE 141 The Job Search (1)
- MAT 124<sup>1</sup> Technical Problem Solving (3)
- MIT 100 Safety in Industry (2)
- MIT 105 Metallurgy (1)
- MIT 120 Rigging (1)
- MIT 140 Arc Welding I (3)
- MIT 141<sup>1</sup> Arc Welding II (3)
- MIT 145 Welding Gases, Flows, Rates, Filler Metals (2)
- MIT 165 Welding Tools and Equipment (2)
- MIT 170 Welding Symbols/Blueprint Interpretation (2)
- MIT 205 Weld Testing and Inspection (2)
- MIT 210<sup>1</sup> Layout and Fitting Techniques (3)
- MIT 295 Manufacturing Lab (3)

<sup>1</sup> Placement test and/or prerequisite required.

# Medical Insurance, Coding and Billing Certificate

This certificate is designed for students seeking an introduction to medical insurance, coding, and billing in the office, clinic, or hospital. Completion of the program will enhance the knowledge and skills base of those already in the workplace. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 33**

## Certificate Requirements 33-34 Credit Hours

- AHS 100 Introduction to Health Services (3)
- AHS 105 Communication and Behavior in the Health Care Setting (3)

- AHS 110 Health Care Ethics and Law (3)
- AHS 131 Medical Terminology (3)
- AHS 135 Medical Coding, Insurance, and Billing (3)
- BIO 160<sup>1</sup> Introduction to Human Physiology and Anatomy (4)
- ENG 100<sup>1</sup> Fundamentals of Composition (3)  
*or*  
ENG 101<sup>1</sup> English Composition I (3)
- CIS 102 Computer Literacy (2)  
*or*  
CIS 120 Introduction to Computer Information Systems (3)
- MAT 057 Math for Allied Health (3)
- OIS 110 Keyboarding Review and Speed (3)
- OIS 200 Professional Office Skills (3)

# Medical Transcription Certificate

The Medical Transcription Certificate program is designed to give students an introduction to medical transcription skills and to assist those students who desire to enhance their abilities on the job. Included in the curriculum are practical applications and knowledge. Students may apply credit hours earned in this program toward the Associate of Applied Science degree in Office Information Systems. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 36**

## Certificate Requirements 36-37 Credit Hours

- AHS 100 Introduction to Health Services (3)
- AHS 110 Health Care Ethics and Law (3)
- AHS 131<sup>1</sup> Medical Terminology I (3)
- AHS 135 Medical Coding, Insurance & Billing (3)

- BUS 111 Business English (3)
- CIS 102 Computer Literacy (2)  
*or*  
CIS 120 Introduction to Computer Information Systems (3)
- CIS 122 Introduction to MS Word (2)  
*or*  
CIS 124 Introduction to WordPerfect (2)
- CIS 222<sup>1</sup> Advanced MS Word (2)  
*or*  
CIS 224<sup>1</sup> Advanced WordPerfect (2)
- OIS 110 Keyboarding Review and Speed (3)
- OIS 130<sup>1</sup> Machine Transcription (3)
- OIS 200<sup>1</sup> Professional Office Skills (3)
- OIS 210<sup>1</sup> Keyboarding with Applications (3)
- OIS 230<sup>1</sup> Medical Transcription (3)

## Optional — 1-6 Credit Hours

- INT 210<sup>2</sup> Internship I (1-6)

<sup>1</sup> Placement test *and/or* prerequisite required.

<sup>2</sup> It is strongly recommended that students enroll in this optional course in addition to the required credit hours for completion of the Medical Transcription Certificate. Please see catalog for course description.





## Nursing Assisting Certificate

This certificate is designed for students seeking an introduction to nursing assisting and the basic skills required for computations, documenting, team collaboration, communication, and client advocacy in the health care setting. It will enhance the knowledge and skills base of nursing assistants already in the workplace. Prepares students for entry-level employment in acute care, long term care, and assisted living settings. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 27**

### *Certificate Requirements* 27-28 Credit Hours

- AHS 100 Introduction to Health Services (3)
- AHS 105 Communication and Behavior In the Health Care Setting (3)
- AHS 110 Health Care Ethics and Law (3)
- AHS 131 Medical Terminology (3)
- BIO 160 Introduction to Human Physiology and Anatomy (4)
- CIS 102 Computer Literacy (2)
- or
- CIS 120 Introduction to Computer Information Systems (3)
- ENG 100<sup>1</sup> Fundamentals of Composition (3)
- or
- ENG 101<sup>1</sup> English Composition I (3)
- MAT 057 Math for Allied Health (3)
- NUR 110 Nursing Assistant I (3)



## Phlebotomy Certificate

This certificate is designed to prepare students for entry-level positions as phlebotomists in acute care, clinic, or community-based agencies and settings. Addressing such skills as collection of specimens, infection control and safety, the operation of the clinical laboratory, health care delivery and terminology, and communication and professional behavior, this program meets the standards of the national accrediting organizations for phlebotomists. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 31**

### *Certificate Requirements* 31-32 Credit Hours

- AHS 100 Introduction to Health Services (3)
- AHS 105 Communication and Behavior in the Health Care Setting (3)
- AHS 110 Health Care Ethics and Law (3)
- AHS 131 Medical Terminology (3)
- AHS 160<sup>1</sup> Phlebotomy Procedures (3)
- AHS 161<sup>1</sup> Phlebotomy Practicum (4)
- BIO 160 Introduction to Human Physiology and Anatomy (4)
- BUS 111 Business English (3)
- CIS 102 Computer Literacy (2)
- or
- CIS 120 Introduction to Computer Information Systems (3)
- MAT 057 Math for Allied Health Occupations (3)

<sup>1</sup> Placement test and/or prerequisite required.



## Pre-Professional Nursing Certificate

This certificate further develops the skills of the nursing assistant – adding to the caregiver's written communication skills and providing advanced applied knowledge of the human body and mind, computation, and nutrition. The Pre-Professional Nursing Certificate includes all prerequisite course work requirements for application for admission to all regional community college associate degree nursing programs and to the NAU baccalaureate nursing program. This course work may also be applied to most health science degrees.

*(The courses in this degree require prerequisites. Please see an Advisor prior to enrolling in these courses.)*

**Minimum credit hours required: 24**

### Certificate Requirements 24 Credit Hours

- BIO 181<sup>1</sup> Unity of Life I: Life of the Cell (4)
- BIO 201<sup>1</sup> Anatomy and Physiology (4)
- CHM 130<sup>1</sup> General Chemistry (4)
- ENG 101<sup>1</sup> English Composition I (3)
- ENG 102<sup>1</sup> English Composition II (3)
- MAT 142<sup>1</sup> Applications of College Algebra (3)
- NTR 135<sup>1</sup> Human Nutrition (3)

## Psychiatric Technician Certificate

This certificate is designed for students seeking entry-level preparation for the role of psychiatric technician or mental health worker and the basic skills required for computations, documenting, team collaboration, communication, and client advocacy in the mental health setting. The program will enhance the knowledge and skills base of psychiatric technicians already in the workplace. Psychiatric technicians, also known as mental health workers or psychiatric nursing assistants, have the closest contact with psychiatric and addictions patients; they provide physical care, participate in/offer components of the treatment program, and accompany patients to treatments and on outings. To be employed in an accredited agency or to provide home care, psychiatric technicians are required to have a bachelor's degree in a related field. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

**Minimum credit hours required: 26**

### Certificate Requirements 26-27 Credit Hours

- AHS 100 Introduction to Health Services (3)
- AHS 105 Communication and Behavior in the Health Care Setting (3)
- AHS 110 Health Care Ethics and Law (3)
- AHS 131 Medical Terminology (3)
- AHS 150<sup>1</sup> Psychiatric Technician I (3)
- CIS 102 Computer Literacy (2)
- or**
- CIS 120 Introduction to Computer Information Systems (3)
- ENG 100<sup>1</sup> Fundamentals of Composition (3)
- or**
- ENG 101<sup>1</sup> English Composition I (3)
- NUR 110 Nursing Assistant I (3)
- PSY 205 Introduction to Abnormal Psychology (3)



<sup>1</sup> Placement test and/or prerequisite required.





# Sheet Metal Apprenticeship Certificates

## Intermediate Certificate

The Intermediate Certificate in Sheet Metal is designed to introduce the student to the sheet metal industry. It provides the foundational classes in the layout and assembly of many sheet metal trades field applications in a progressively complicated sequence. This is a Tech Prep articulated program. For more information regarding Tech Prep see page 9.

### Certificate Requirements 35 Credit Hours

ITC 145 Sheet Metal I (5)  
ITC 146 Sheet Metal II (5)  
ITC 147 Sheet Metal III (5)  
ITC 148 Sheet Metal IV (5)  
ITC 149 Sheet Metal V (5)  
ITC 245 Sheet Metal VI (5)  
ITC 246 Sheet Metal VII (5)

## Advanced Certificate

The Advanced Certificate in Sheet Metal is designed to continue to improve the student's expertise in the sheet metal industry. It provides more advanced classes in the layout and assembly of many sheet metal trades field applications in a progressively complicated sequence.

### Certificate Requirements 50 Credit Hours

Completion of the Intermediate Certificate (35)  
ITC 247 Sheet Metal VIII (5)  
ITC 248 Sheet Metal IX (5)  
ITC 249 Sheet Metal X (5)



*"I am glad that CCC is small enough that I am able to know my instructors, and they know me by name. I have spent quality time with many instructors and advisors who have helped encourage me to go after my degree plan."*

*— Darlene Sims,  
Pre-Dental Hygiene  
Major*

# Course Descriptions

# Accounting

## ACC 100 (5)

### Practical Accounting Procedures

Practical approach to the study of accounting for office, sales, and small business personnel. Includes the basic accounting cycle, special journals, procedures for controlling cash and payroll accounting. Accounting systems and procedures for small businesses are stressed. Five lecture.

## ACC 101 (3)

### Principles of Financial Accounting

Financial accounting theory as applied to corporate form of business involving service and merchandising activities. Includes analysis and recording of business transactions and preparation of financial statements. Prerequisite: MAT 121 or placement, or ACC 100, or consent of instructor. Three lecture.

## ACC 102 (3)

### Principles of Managerial Accounting

Accounting theory and practice as it applies to the uses of accounting information in the management decision making process of an organization. Introduces manufacturing accounting (job order, process cost, and standard cost systems) and budgeting. Prerequisite: ACC 101. Three lecture.

## ACC 103 (3)

### Basic Office Accounting I

Techniques, tools, and composition of a basic bookkeeping system. Includes journalizing an opening entry, journalizing and posting routine transaction from source documents, closing entries, preparing simple financial statements and preparing a post adjusting trial balance to complete the bookkeeping cycle. For non-accounting majors. Three lecture.

## ACC 104 (3)

### Basic Office Accounting II

Developing and maintaining a set of books for small business. Includes an introduction to the following: special journals, payroll systems, sales taxes, bad debts, depreciation, notes and interest, accruals, and the partnership and corporate form of business. For non-accounting majors. Prerequisite: ACC 103. Three lecture.

## ACC 105 (3)

### Income Tax I

Internal Revenue Service Code and Regulations as they pertain to the individual. Tax principles are applied to problems and the preparation of the individual income tax return. Three lecture.

## ACC 106 (3)

### Income Tax II

Internal Revenue Service Code and Regulations as they pertain to the partnerships, corporations, tax option corporations, consolidated groups, estates and trusts. Tax principles are applied to problems and preparation of federal taxes. Three lecture.

## ACC 107 (5)

### Income Tax

A comprehensive explanation of the Internal Revenue Service Code and Regulations as they pertain to individuals, partnerships and corporations. Tax principles are applied to problems and the preparation of individual, partnership and corporation tax returns. Five lecture.

## ACC 109 (3)

### Budget & Forecasting

Roles, techniques, and uses of budgeting and forecasts. Application of budgets, and forecasting management decision-making and control. Prerequisite: ACC 101. Three lecture.

## ACC 201 (3)

### Intermediate Accounting I

Critical analysis of balance sheet accounts. Introduces analysis of income statement expense and revenue accounts with emphasis on the matching process. Problems keyed to studies made by professional accounting societies are studied. Prerequisite: ACC 102. Three lecture.

## ACC 202 (3)

### Intermediate Accounting II

Completion of the critical study of balance sheet accounts. Continuing intensive analysis of financial statements. Emphasis on comparative analysis of tabulated data, special ratios and measurements, funds and cash flow statements, and accounting for price level changes. Prerequisite: ACC 201. Three lecture.

## ACC 204 (3)

### Managerial Accounting

Fundamental techniques of dynamic cost and profit control with primary emphasis on responsibility accounting. Includes managerial budget planning, variable expenses, volume relationships, profit analysis, and budget reports. Also includes some problem-solving computer applications. It is assumed that students enrolling in this course have computer skills and some accounting background through casework or experience. Three lecture.



### **ACC 205 (3)** **Cost Accounting**

Cost accounting principles applied to manufacturing operation. Concentrates on accounting for labor, materials, manufacturing overhead, and manufacturing expenses. Includes cost and profit analysis and problem-solving using computer applications. It is assumed that students enrolling in this course have computer skills and some accounting background through casework or experience. Three lecture.

### **ACC 206 (3)** **Accounting & EDP Systems**

Electronic data processing systems as they apply to accounting systems. Provides hands-on experience with microcomputer hardware and software packages. Includes accounting cycle transaction and management decision-making applications. Three lecture.

### **ACC 207 (3)** **Office Accounting & EDP Systems**

Practical procedures and applications in office accounting using a hands-on approach, paper and pencil systems, and microcomputer systems. Includes the completion of special journals, worksheets, financial statements, payroll documents, business documents, and tax reports. Three lecture; one lab.

### **ACC 210 (3)** **Financial Statement Analysis**

Characteristics of financial statements with a review of basic accounting principles as applied to financial statements. Emphasizes developing the tools and techniques used in analyzing financial statements, including the use of computer spreadsheets. Three lecture.

### **ACC 298 (1-6)** **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## **Administration of Justice**

**AJS 101 (3)**  
**Introduction to Administration of Justice**  
Organization and jurisdiction of local, state, and federal law enforcement, judicial and corrections systems, terminology, and constitutional limitations of the system. Three lecture.

### **AJS 105 (3)** **Juvenile Detention Studies**

Introduction to the field of Juvenile Detention, including responsibilities and job duties of the detention employee. The course will include both legal and procedural issues in the subject area. Three lecture.

### **AJS 110 (3)** **The Correction Function**

History and development of correctional theories and institutions. Three lecture.

### **AJS 120 (3)** **Substantive Criminal Law**

Philosophy and legal sanctions and historical development from the common law to modern American Criminal Law. Classifications of crimes, elements of and parties to crimes, general definitions of crime, common defenses utilized, and review of offenses and the essential elements of each defense. Three lecture.

### **AJS 130 (3)** **The Police Function**

Theories of procedures and methods of operations with emphasis on the discretionary powers available to the working police officer. Career opportunities and current trends in law enforcement will be presented. Three lecture.

### **AJS 141 (3)** **Gang Behavior & Street Violence**

Development of gangs, how society promotes them, and how they are self-sustaining through street violence. Includes a detailed look at victims' rights and the history of vigilantes in America. Three lecture.

### **AJS 150 (3)** **Rules of Criminal Procedures**

Procedural criminal law including the judiciary role in the criminal justice systems, the right to council, pretrial release, grand juries, adjudication process, types and rules of evidence, and sentencing. Three lecture.

### **AJS 160 (3)** **Police Administration**

Principles of administration and organization of agency field functions and services within law enforcement organizations. Three lecture.

### **AJS 170 (3)** **Introduction to Security**

Functions and services provided by a security organization. Explains the relationship between private, internal, and external security services as they relate to law enforcement agencies. Three lecture.



**AJS 200 (3)****Community Relations**

Examination, recognition, and understanding of community problems; community action programs; methods of coping with human behavior, conflict and communications; ethnic and minority cultures and environments; the community and the relationships with the criminal justice system. Three lecture.

**AJS 220 (3)****Rules of Evidence**

Understanding of the rules of evidence which most often affect personnel concerned with the administration of the criminal law. Three lecture.

**AJS 230 (3)****Crime & Delinquency**

Basic concepts of deviant behavior; evaluates current literature and studies the application of current criminological theories related to patterns of deviance. Three lecture.

**AJS 240 (3)****Juvenile Justice Procedure**

History and development of juvenile procedures and institutions. Three lecture.

**AJS 250 (3)****Criminal Investigations**

Fundamentals of criminal investigation. Examines theory of criminal investigation, crime scene procedures, case preparation, interviewing, and basic investigative techniques. Three lecture.

**AJS 260 (3)****Constitutional Law**

Constitutional law as it relates to the operation of the criminal justice system. Three lecture.

**AJS 265 (3)****Probation & Parole**

The selection process for the release of both adults and juveniles under the supervision of probation and parole guidelines and the community values consistent with those under supervision. Three lecture.

**AJS 280 (3)****Criminology**

Deviance and society's role in defining behavior; theories of criminality and the economic, social, and psychological impact of crime and victimization; relationships between statistics and crime trends. Three lecture.

**AJS 291 (3)****Terrorism and Counterterrorism**

Nature of terrorism, terrorist threat, and countermeasures to combat terrorism. Three lecture.

**AJS 292 (3)****Hostage Negotiations**

Essentials of hostage negotiations for all personnel and may serve as a refresher for trained personnel. Three lecture.

**AJS 293 (3)****Firearms Training**

Proper instruction of firearm use. Emphasizes safety factors and proper operational use. Prerequisite: Enrollment limited to law enforcement agencies and with permission of program director. Three lecture.

**AJS 295 (3)****White Collar & Corporate Crime**

A close look at the theories, laws and issues surrounding white collar crime in contemporary society. Three lecture.

**AJS 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Air Force Studies

**AES 101 (2)****The Air Force Today I**

Survey course focusing on organizational structure and missions of Air Force organizations, military customs and courtesies, officership and Corp values, and an introduction to written and oral communication skills, physical fitness training and demonstration of command. One lecture; two lab.

**AES 102 (2)****The Air Force Today II**

Survey course focusing on role and mission of U.S. strategic offensive and defensive forces, aerospace support forces, and general purpose forces; examination of topics in the use of national power; principles and theory of flight, and basic communication skills, physical fitness training and demonstration of personal leadership and managerial abilities. One lecture; two lab.

**AES 201 (2)****Development of Air Power I**

This course covers the historical survey of trends, events, and policies that led to the emergence of air power through the Persian Gulf War. It also provides an introduction to basic leadership and management skills, ethical decision-making, basic communication skills and prepares students to attend field training. One lecture; two lab.

**AES 202 (2)****Development of Air Power II**

This course covers the establishment of the Air Force as a separate service, the Cold war, development of various concepts of employment and technological improvements of air power from Korean conflict to present; effective communication skills and application of elements of personal leadership. One lecture; two lab.

## Allied Health Sciences

**AHS 100 (3)****Introduction to Health Services**

Overview of the inner workings of the health care industry and the political, cultural, and socio-economic forces that shape the delivery of health services. Predominant health care systems in the U.S. including Medicare and Medicaid will be examined along with the availability and utilization of various resources, health ethics and law, and quality of care. Three lecture.

**AHS 101 (3)****Careers in Health Care**

Presents an introduction to the breadth of health care provider and supportive roles in today's rapidly diversifying health care industry. Three lecture.

**AHS 105 (3)****Communication & Behavior in the Health Care Setting**

Introduces the health occupations student to essential workplace communication and behavioral skills that fosters the provision of quality patient care, team work, and employee job satisfaction. Three lecture.

**AHS 110 (3)****Health Care Ethics & Law**

Study of the central legal and ethical issues facing health care providers in today's complex health care delivery system; examine managed care, bioethics, telemedicine, death and dying, workplace and practice employment issues, and liability and malpractice through the use of case studies and scenarios. Three lecture.

**AHS 131 (3)****Medical Terminology I**

Medical vocabulary for beginning students in allied health and science fields. Includes word roots, prefixes, suffixes, and abbreviations. Emphasizes spelling, pronunciation, and definition. Three lecture.

**AHS 135 (3)****Medical Coding, Insurance & Billing**

Students learn to submit, trace, appeal, and transmit health care claims; includes step-by-step instruction for all major forms of claims using real-life cases and classroom instruction with current software that provides immediate feedback, self-tests, and additional self-paced exercises. Prerequisites: CIS 102 or 120, and OIS 110, and AHS 100. Co-requisites: AHS 131, ENG 100 or ENG 101; or consent of instructor. Three lecture.

**AHS 140 (3)****Care-Giving in Assisted Living**

Students examine the foundation principles of assisted living; these include general resident supervision, crisis intervention, self-administration of prescribed medication, concepts of aging and associated physical and medical sequelae and their monitoring, personal care needs, social and rehabilitative activity, care-planning, the management of staff and services for residents, and the laws, policies and procedures regulating the assisted living environment. Meets the training requirements of the Arizona Department of Health Services for caregivers and managers in assisted living facilities. Two lecture; three lab.

**AHS 150 (3)****Psychiatric Technician I**

A comprehensive introduction to the role of the psychiatric/mental health aide in both acute care and out-patient or partial-hospitalization psychiatric and addictions milieu; content addresses such issues as common disorders, developmental anomalies, patients' rights, family dynamics and therapy, managing therapeutic groups, coping and maladaptive strategies, violence, and sexuality. Pre- or co-requisites: PSY 205, AHS 100, AHS 105 or consent of instructor. Two lecture; three lab.

**AHS 160 (3)****Phlebotomy Procedures**

Theory and practice of basic phlebotomy and specimen processing including laboratory test codes, equipment, procedures, role development and the health care team, ethics and safety, and legal issues and quality assurance. Prerequisite: AHS 131. Co-requisite: AHS 161; this course must be taken in conjunction with AHS 161. Three lecture.

**AHS 161 (4)**  
**Phlebotomy Practicum**

Theory and practice of basic phlebotomy and specimen processing; clinical experiences in acute care, clinic, and community agency settings. Co-requisite: AHS 160. One lecture; nine lab. This course must be taken in conjunction with AHS 160.

**AHS 298 (1-6)**  
**Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## American Sign Language

**ASL 101 (4)**  
**American Sign Language I**

Principles, methods, and techniques for acquiring basic skills using American Sign Language, with emphasis on developing visual/receptive skills and basic communication. General Education: Options. Four lecture.

**ASL 102 (4)**  
**American Sign Language II**

Further emphasis on American Sign Language vocabulary, grammar, receptive, and expressive technique development. Prerequisite: ASL 101 or consent of instructor. General Education: Options. Four lecture.

**ASL 201 (4)**  
**American Sign Language III**

Enhanced focus on expressive and receptive American Sign Language sign skills. Application of syntactical and grammatical structure, idioms, body language, and cultural aspects of deafness. Prerequisite: ASL 102 or consent of instructor. General Education: Options. Four lecture.

**ASL 202 (4)**  
**American Sign Language IV**

Further development of American Sign Language communication skills with emphasis on spontaneous conversation, discussions, narratives, and register. Prerequisite: ASL 201 or consent of instructor. General Education: Options. Four lecture.

**ASL 298 (1-6)**  
**Special Topics**

Designed to meet the needs of an individual(s) who has an interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Anthropology

**ANT 101 (4)**  
**Introduction to Physical Anthropology**

An introductory survey of the basic principles, concepts, assumptions, theories, and vocabulary of human evolution and world archaeology. General Education: Physical and Biological Sciences. Three lecture; two lab.

**ANT 102 (3)**  
**Introduction to Cultural Anthropology**

Impact of culture on human behavior, the interrelationships among the different parts of a culture, the view of cultures as adaptive systems, and the relevance of applied anthropology to public policy making in the United States. General Education: Social and Behavioral Science. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness, Ethnic/Race/Gender Awareness. Three lecture.

**ANT 110 (3)**  
**Exploring Archaeology**

History, methods, and theory of archeology with an emphasis on modern techniques of studying prehistoric and historic populations and their cultural remains. General Education: Social and Behavioral Science. Three lecture.

**ANT 210 (3)**  
**Peoples of the World**

A comparative study of selected peoples and cultures from various regions of the globe, including the historical and contemporary experiences of these groups. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness, Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

**ANT 230 (3)**  
**Peoples of the Southwest**

Ethnohistorical survey of the American Southwest Culture Area, focusing on selected Pueblo and non-Pueblo Peoples. This course is designed to expose the student to the richness of traditional Southwestern cultures in order to stimulate an appreciation for the Native history and ethnic diversity of the region. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness, Contemporary Global/International Awareness OR Historical Awareness. Three lecture.



**ANT 241 (3)****Anthropology of Religion**

Anthropology of religious practices employed by both western and non-western peoples in dealing with adversity, misfortune, illness, death and similar phenomena beyond human control. Three lecture.

**ANT 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

# Art

**ART 100 (3)****Art Appreciation**

Historical overview and appreciation of painting, sculpture, architecture, film, and crafts. Examines individual works of art with regard to both their formal qualities and the way they reflect the shifting patterns of culture. Field trips. General Education: Arts and Humanities. Three lecture.

**ART 103 (3)****Native American Art of the Southwest**

Survey of Native American artwork from the southwestern United States covering architecture, arts and crafts from the prehistoric period to the present. Also includes the history of native cultures of the region. Field trips to local prehistoric sites and museums. Three lecture.

**ART 105 (3)****Beginning Art**

Introductory course in drawing and painting techniques and materials for students who would like to explore their creativity. One lecture; five lab. May be taken for S/U credit.

**ART 110 (3)****Drawing I**

Perspective and visual perception as related to developing artistic visual growth in perceiving our environment. Emphasizes analysis of objects and their compositional placement within the pictorial construction. One lecture; five lab. May be taken for S/U credit.

**ART 111 (3)****Drawing II**

Further development of technical and perceptual drawing skills. Emphasis on composition and pictorial content. Prerequisite: ART 110 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 114 (3)****Stained Glass I**

Copper foil and lead techniques of stained glass, including precision glass cutting and creative application of these techniques in producing interior and architectural pieces. One lecture; five lab. May be taken for S/U credit.

**ART 115 (3)****Color Theory**

Principles of color theory related to the visual arts. Includes a variety of media. Prerequisite: ART 110 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 120 (3)****Ceramics I**

Introduction to handbuilding techniques, wheel throwing, glazing and other decorative techniques, kiln firing and ceramics history. One lecture; five lab. May be taken for S/U credit.

**ART 121 (3)****Ceramics II**

Emphasis on developing intermediate skill with the potter's wheel and handbuilding methods, glazing and decoration techniques, and kiln operations. Prerequisite: ART 120. One lecture; five lab. May be taken for S/U credit.

**ART 130 (3)****Computer Graphics I**

An introductory course in computer graphics. Introduction to design principles and visual problem-solving with software suitable for two-dimensional design and illustration. Prerequisite: CIS 102 or CIS 120 or consent of instructor. Recommended: ART 110 and ART 160. Two lecture; two lab. May be taken for S/U credit.

**ART 133 (2)****Calligraphy I**

Basic calligraphic skills including letter form, spacing, and page design. One lecture; two lab. May be taken for S/U credit.

**ART 134 (2)****Calligraphy II**

Expands calligraphic skills including letter form, spacing, and page design. One lecture; two lab. May be taken for S/U credit.

**ART 140 (3)****Jewelry I**

Jewelry and the hand working of nonferrous craft metals and associated materials. One lecture; five lab. May be taken for S/U credit.



**ART 150 (3)**  
**Photography I**

Photography as an art form. Includes camera operation with emphasis on its use as a creative tool. Basic darkroom techniques and controls, including film development, contact printing, enlarging and composition. Two lecture; four lab. May be taken for S/U credit.

**ART 151 (2)**  
**Photography Techniques & Materials**  
More advanced techniques and materials than the basic course. Emphasis on developing an alternative vision. Prerequisite: ART 150 or consent of instructor. One lecture; two lab.

**ART 160 (3)**  
**Color & Design**  
Fundamentals of two-dimensional design emphasizing study and utilization of the Principles of Design, development of a visual vocabulary, and study of color theory. Prerequisite: ART 110 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 165 (3)**  
**Three-Dimensional Design**  
Introduction to the fundamental concepts and design principles involved in organizing three-dimensional space and materials used in three-dimensional art forms. One lecture; five lab.

**ART 180 (3)**  
**Sculpture I**  
Introduction to sculptural processes, techniques and materials in clay, metal, wood, and stone. Includes sculptural history and criticism. Prerequisite: ART 165 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 190 (3)**  
**Oil/Acrylic Painting I**  
Introduction to techniques and materials traditionally used in oil and/or acrylic painting. Prerequisite: ART 110 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 191 (3)**  
**Oil/Acrylic Painting II**  
Intermediate course in developing expressive and descriptive skills using oil and/or acrylic paint. Prerequisite: ART 190 and ART 160 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 194 (3)**  
**Watercolor I**  
Transparent qualities of watercolor medium. Techniques and materials will be used to stimulate personal creativity and uniqueness of expression. One lecture; five lab. May be taken for S/U credit.

**ART 195 (3)**  
**Watercolor II**  
Increased opportunity for independent development. Implements study of techniques to fit individual needs. Prerequisite: ART 194 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 199 (0.5-6)**  
**Workshop**  
Designed to provide workshop courses based on student and faculty interest in pursuing or presenting an original topic. Workshops may be developed to enhance existing curriculum or to give students experience that is not covered by existing curriculum. One-half to six variable credit hours. May be taken for S/U credit.

**ART 201 (3)**  
**Art History I**  
Study of the historical development of significant periods and styles in painting, sculpture, and architecture from the prehistoric through the Gothic periods. Emphasis is placed upon the cultural context within which the works of art are created. Prerequisite: ENG 101. General Education: Arts and Humanities. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

**ART 202 (3)**  
**Art History II**  
Historical development of significant periods and styles in painting, sculpture, and architecture from the Renaissance to the twentieth century with an emphasis on the cultural context within which the works of art were created. Prerequisite: ENG 101. General Education: Arts and Humanities. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

**ART 203 (3)**  
**Artist's Business Course**  
Business skills for the practicing artist. Budgeting, bookkeeping, tax planning, contracts, marketing, and grantsmanship. Three lecture.



**ART 210 (3)**  
**Life Drawing I**

Application of the elements of drawing in the description of the human figure, drawing from the model. Topics include: light and shade, composition, and anatomy. Prerequisite: ART 110 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 214 (3)**  
**Stained Glass II**

Design and construction of stained glass pieces using copper foil and/or lead processes, manipulation of the surface of glass using an etching process, basic glass design vocabulary, developing proficiency with glass working hand tools. Prerequisite: ART 114. One lecture; five lab. May be taken for S/U credit.

**ART 220 (3)**  
**Art of the United States**

Study of the historical development of the arts and architecture in America from the Colonial period to the present. Prerequisite: ENG 101. Three lecture.

**ART 221 (3)**  
**Art of the Southwest**

A historical survey of painting, sculpture, and architecture in the southwestern region of the United States from pre-historic time to the present. Prerequisite: ENG 101. General Education: Arts and Humanities. Special Requirements: Contemporary Global/ International Awareness OR Historical Awareness, Ethnic/Race/Gender Awareness. Three lecture.

**ART 225 (3)**  
**History of Photography**

Historical development of the aesthetics and technology of photography from 1836 to the present. Prerequisite: ENG 101. Three lecture.

**ART 230 (3)**  
**Illustration I**

Introduction to illustration styles, techniques and materials. Emphasis on creative solutions to visual communications projects. One lecture; three lab.

**ART 251 (3)**  
**Color Photography**

Color photography as an art form. Includes a study of color potential in photography and its related problems; basic additive and transparency films; color films and their inherent tonal rendition; color changes accomplished in solarization. Prerequisite: ART 150 or consent of instructor. Two lecture; four lab. May be taken for S/U credit.

**ART 252 (3)**  
**Documentary Photography**

An introductory course in the field of documentary photography, to include camera use, documentary history and techniques. Field Trips. Prerequisite: ART 150, ENG 101, or consent of the instructor. Two lecture; two lab.

**ART 280 (3)**  
**Advanced Studio Workshop**

A course for students interested in further developing artistic expression and skills in order to pursue personal artistic goals. Prerequisite: ART 111, or ART 190, or ART 195, or ART 210. One lecture; five lab.

**ART 294 (3)**  
**Watercolor III**

An advanced course in watercolor painting with increased opportunity for development of individual style through traditional and experimental techniques. Prerequisite: ART 195 or consent of instructor. One lecture; five lab. May be taken for S/U credit.

**ART 298 (1-6)**  
**Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Automotive

**AUT 100 (3)**  
**Automotive Basics**

Basic automotive knowledge as it relates to owner/operator of an automobile or light truck. It will give the student an understanding of systems and maintenance. Two lecture; two lab.

**AUT 298 (1-6)**  
**Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Aviation

**AVT 131 (3)**  
**Private Ground School**

Aviation fundamentals including aerodynamics, aircraft performance and operations, earth's atmosphere and weather systems, radio communications and navigation, aeronautical chart reading and course plotting, use of the plotter and slide graphic physiology. Three lecture. May be taken for S/U credit.

**AVT 132 (3)****Instrument Pilot Ground School**

Non-flying aspects of instrument pilot aviation needed to prepare for the FAA written examination and to become an instrument-rated pilot. Topics include instrument flight environment, operational confederations, advanced meteorology, instrument flight planning, and regulations. Three lecture.

**AVT 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Biology

**BIO 100 (4)****Biology Concepts**

Basic principles and concepts of biology. Explores methods of scientific inquiry and behavior of matter and energy in biological systems. Prerequisite: MAT 087, or equivalent or placement; ENG 101 or placement; or consent of instructor. General Education: Physical and Biological Sciences. Three lecture; three lab.

**BIO 105 (4)****Environmental Biology**

Basic concepts of ecology and the importance of human interaction with the natural ecosystem. Field trips. Prerequisites: MAT 087, or equivalent or placement; ENG 102; or consent of instructor. General Education: Physical and Biological Sciences; Special Requirements: Contemporary Global/International Awareness OR Historical Awareness; Intensive Writing/Critical Inquiry. Three lecture; three lab.

**BIO 109 (4)****Natural History of the Southwest**

Based on the life zone concept, an examination of the geologic history and ecologic history of the Southwest. Emphasis is on the identification and adaptations of biotic populations. Involves field trips. General Education: Physical and Biological Sciences. Prerequisite: ENG 101 or consent of instructor. Three lecture; three lab.

**BIO 160 (4)****Introduction to Human Anatomy & Physiology**

Biology 160 is the study of the structure and function of the human body. It is designed for students who want a one semester course in anatomy and physiology and those pursuing

certificates in the allied health sciences; students majoring in the sciences or preparing for professional health science careers should enroll in the BIO 201/202 sequence. Three lecture; three lab.

**BIO 181 (4)****Unity of Life I: Life of the Cell**

An introductory course for Biology MAJORS emphasizing central principles related to cellular and molecular processes in the cell. Course will include molecular structure, cell structure, reproduction, metabolism molecular genetics and evolution. Prerequisite: high school algebra and biology or consent of instructor. Three lecture; three lab.

**BIO 182 (4)****Unity of Life II: Multicellular Organisms**

The second semester of introductory Biology Majors course. Builds on principles from BIO 181 to emphasize organism principles of life. Covers all multicellular organisms. Prerequisite: BIO 181. Three lecture; three lab.

**BIO 201 (4)****Human Anatomy & Physiology I**

Design and function of the human body. Topics include cells, tissues, integumentary, muscular, skeletal, nervous, and sensory systems. Prerequisite: a college-level Biology course (100 or above) or consent of instructor. General Education: Physical and Biological Sciences. Three lecture; three lab.

**BIO 202 (4)****Human Anatomy & Physiology II**

Design and function of the human body. Topics include body fluids, immune, cardiovascular, respiratory, digestive, urinary, and reproductive systems. Prerequisite: BIO 201 or equivalent or consent of instructor. General Education: Physical and Biological Sciences. Three lecture; three lab.

**BIO 205 (4)****Microbiology**

Microorganisms and their relationships to health, ecology, and related areas. Prerequisite: one semester of college-level chemistry or consent of instructor. General Education: Physical and Biological Sciences. Three lecture; three lab.

**BIO 253 (4)****Biotechnology and Social Issues**

Examination of the natural and human-manipulated processes involved in genetics and gene expression. Concentrations on current



genetic manipulations and potential consequences in biology, ecology, social and ethic concerns, and potential legal aspects. Field trips may be involved. Intended for those interested in the influence of science on society. General Education: Physical and Biological Sciences. Prerequisite: two semesters of high school biology within the last four years, or BIO 100 or above. Three lecture; three lab.

### **BIO 298 (1-6)**

#### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## **Business**

### **BUS 100 (3)**

#### **Mathematics of Business**

Mathematical concepts and procedures involved in financial transactions. Includes a review of basic arithmetic and algebraic skills, percentages, loans, insurance, investments, depreciation, amortization, proration, estate planning, taxes, and closing statements. Prerequisite: MAT 087 or placement. Three lecture.

### **BUS 101 (3)**

#### **Introduction to Business**

Elements of business and industry. Includes the history, structure, function and contribution of business and industry to our society. Three lecture.

### **BUS 102 (3)**

#### **Introduction to International Trade & Business**

Basic elements of business in the international market. Includes examination of the social, political, economic, cultural and technological environment of international business. Three lecture.

### **BUS 103 (3)**

#### **Personal Finance**

problem-solving for the financial needs of individuals. Includes budgeting, banking, home ownership and real estate, saving, investing, borrowing, insurance, and planning for wills and trusts. Three lecture.

### **BUS 105 (3)**

#### **Basic Investments**

Study of inflation, taxation, government securities, stocks and bonds, real estate, and retirement plans. Three lecture.

### **BUS 106 (3)**

#### **Introduction to Organizational Behavior**

Human behavior in a work setting. Awareness of individual behavior, two-person interaction, dynamics of group and inter-group behavior, and effects of the total system on behavior within the organization. Three lecture.

### **BUS 107 (3)**

#### **Retail Management**

Management elements of the retailing profession, across-the-counter relationships and activities, problems of market opportunity, identification of markets, pricing, promotion decisions, and the techniques of retail control. Three lecture.

### **BUS 108 (3)**

#### **Introduction to Selling**

General principles of successful personal selling. Qualities and qualifications of training programs for successful selling practices. Three lecture.

### **BUS 110 (3)**

#### **Advertising & Sales Promotion**

Theory and function of advertising and sales promotion. Role of advertising, target marketing, media and media strategy, and the impact of behavioral sciences on advertising. Preparation and presentation of an advertising campaign. Three lecture.

### **BUS 111 (3)**

#### **Business English**

Review and reinforcement of spelling, punctuation, capitalization, sentence structure, word usage, and up-to-date formatting techniques as they apply to business letter and report writing. Three lecture.

### **BUS 203 (3)**

#### **Business Law**

History and structure of the American legal system as it applies to business. Contract law with some discussion of criminal law and tort law. General Education: Social and Behavioral Sciences. Three lecture.

### **BUS 204 (3)**

#### **Business Communications**

Solving business problems through effective oral and written communications. Letter forms and methods of writing business letters. Creating functional letters related to inquiry, response, good will, sales, credit, and adjustment and collection. Prerequisite: ENG 101 and either BUS 111 or consent of instructor and appropriate placement on the Business English Proficiency Test. Three lecture.



**BUS 206 (3)****Principles of Management**

Fundamentals of management including the management principles and techniques used for business objectives, structure, operational procedures, and control procedures. Principles and techniques discussed may be applied to any area of business and industry. Three lecture.

**BUS 207 (3)****Principles of Marketing**

Environment of marketing including analysis of various marketing activities and discussion of the economic, psychological and sociological factors which influence marketing activities. Three lecture.

**BUS 208 (3)****Applied Management Techniques**

Integrates the functional areas of management into the direct solution of business and management problems. Includes a comprehensive business plan. Three lecture.

**BUS 209 (3)****Principles of Supervision**

Concepts and techniques used in the direct supervision of others. Supervisor's relationship to those directly supervised and others in the organization, management of human and physical resources, group processes, communication, and leadership skills. Three lecture.

**BUS 210 (3)****Human Relations in the Workplace**

Dynamics of human interaction in groups; the influence of these interactions on the efficiency, morale, and supervision of others; the behavior patterns which impact the success of organizational environments. Three lecture.

**BUS 211 (3)****Human Resources/Personnel Management**

Human resources planning and its application to the organization's goals and objectives. Human resources policies, job analysis, employee selection, training, performance evaluation, benefits, compensation, labor relations, morale, safety, and termination. Three lecture.

**BUS 212 (3)****Importing & Exporting**

Volume and complexities involved in importing and exporting out of the United States. Role of the United States in international markets and import/export regulations, documentation, and duties. Three lecture.

**BUS 213 (3)****Small Business Management**

Fundamentals of starting and operating a small business. Location, financing, organization, feasibility studies, and sales promotion. Three lecture.

**BUS 214 (3)****Legal, Ethical & Regulatory Issues in Business**

Legal theories, ethical issues, and regulatory climate affecting business policies and decisions. Prerequisite: ENG 101 or consent of instructor. General Education: Social and Behavioral Sciences. Three lecture.

**BUS 215 (3)****Business Ethics**

Techniques of moral reasoning and argumentation used to analyze and resolve modern business issues: legal issues, corporate responsibility, workers' rights and responsibilities, technological issues, information, and advertising. Three lecture.

**BUS 216 (3)****Principles of Business Finance**

Principles of financial management as applied to the operations of non-financial business and industry firms. Application of financial analysis tools and techniques needed for the process of business and industry financial administration and decision-making, goals and functions of financial management, analysis and planning, working capital management, capital budgeting, and the cost of capital risk. Three lecture.

**BUS 217 (3)****Credit & Collection Principles**

Basic elements of the credit and collection function of financial institutions and business. Nature, function, classification, and principles of commercial credit; analysis of agency reports; and collection procedures. Three lecture.

**BUS 218 (3)****Customer Service**

Effective communication skills to benefit the customer service contact personnel. Establishing contact, defining and resolving problems, and closing an encounter. Three lecture.

**BUS 225 (3)****Total Quality Management**

History and growth of TQM, Deming's fourteen points to TQM, evaluative tools used in TQM, and the major factors concerning total quality management. Three lecture.

**BUS 232 (3)****Business Statistics & Analysis**

Business statistics, including the collection, tabulation, and analysis of business and economic data. Averages, dispersion, statistical inference, correlation and regression, and statistical decision-making and problem-solving. Prerequisite: MAT 142 or higher, or placement. Three lecture.

**BUS 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Chemistry

**CHM 090 (3)****Preparatory Chemistry**

Introductory course designed for students who have not had chemistry before and are planning to take CHM 130 or CHM 151. Includes basic principles and concepts of chemistry. Prerequisites: MAT 087 or placement, and ENG 060 or placement. Three lecture. S/U credit only.

**CHM 130 (4)****Fundamental Chemistry**

General inorganic chemistry, scientific methods, and general laboratory procedures. Prerequisites: high school chemistry or CHM 090 and MAT 121 or equivalent, or consent of instructor. General Education: Physical and Biological Sciences. Three lecture; three lab.

**CHM 151 (5)****General Chemistry I**

Fundamental concepts in chemistry. Stoichiometry, gas laws, atomic and molecular theory, and states of matter. Prerequisites: MAT 121 or placement and high school chemistry or satisfactory completion of CHM 090, or consent of instructor. General Education: Lab Sciences. Four lecture; three lab.

**CHM 152 (5)****General Chemistry II**

Continuation of Chemistry 151 with an emphasis on kinetics and equilibrium, nuclear, aqueous solution, and electro chemistry. Prerequisite: CHM 151. General Education: Physical and Biological Sciences. Four lecture; three lab.

**CHM 190 (3)****Environmental Chemistry**

Elementary atomic theory, the periodic table, and chemical compounds and reactions.

Environmental impact: nuclear power, air and atmosphere pollution, water pollution, pesticides, food additives, and drugs. Minimal mathematics. Three lecture.

**CHM 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Computer Information Systems

**CIS 102 (2)****Computer Literacy**

Introduces students to general computer concepts including computer-related terminology, computer system components, and computer operations. Students will have an opportunity to become familiar with personal computers for personal or business applications and create documents using word processing, spreadsheet, charting, and database software. No prior computer experience is necessary. Two lecture. May be taken for S/U credit.

**CIS 111 (2)****Principles of Programming**

Introduction to programming logic and structures as applied to business computer applications and programming languages. Structure techniques and high-level languages. No prior computer experience necessary. Two lecture. May be taken for S/U credit.

**CIS 112 (2)****Introduction to Windows**

Basic operations and components of Windows environment through hands-on experience using many of the Windows tools and accessory applications. Two lecture. May be taken for S/U credit.

**CIS 113 (1)****Introduction to PowerPoint**

An introduction to creating, modifying, enhancing and presenting a PowerPoint Presentation. Students will learn basic techniques and skills needed to create slides with special effects, animation and transition elements for professional presentations. One lecture. May be taken for S/U credit.

**CIS 115 (1)****Introduction to the Internet**

Introduces students to general concepts, components, and operations related to the use of the Internet. Through hands-on computer activities, students will gain the skills necessary to browse and search the World Wide Web and to use e-mail. No prior computer experience is necessary. One lecture. May be taken for S/U credit.

**CIS 117 (2)****Introduction to Web Page Design**

An introduction to creating and editing documents for the World Wide Web (www.) Students will learn basic editing and design skills and develop a multi-page document including graphical elements. CIS 115 or prior fundamental working knowledge of the Internet is recommended. Two lecture. May be taken for S/U credit.

**CIS 120 (3)****Introduction to Computer Information Systems**

Concepts and theories regarding computer hardware, software, and information processing systems. Includes an intensive lecture component covering the most current technological/computer information available and a hands-on component using word processing, spreadsheet, database, and presentation, e-mail and web browsing application software packages. No prior experience necessary. General Education: Options. Three lecture.

**CIS 122 (2)****Introduction to MS Word**

Concepts and capabilities of word processing software MS Word in the Windows environment through extensive hands-on experience with business applications creating, editing, and enhancing documents appropriate to the work environment and personal use. No prior computer experience required. Two lecture. May be taken for S/U credit.

**CIS 123 (2)****Introduction to Excel Spreadsheets**

Concepts and capabilities of electronic spreadsheet software using Microsoft Excel through extensive hands-on experience. Students will gain the necessary knowledge and skills to create, edit, and enhance worksheets and charts appropriate for workplace or personal use. Prior computer experience is not required. Two lecture. May be taken for S/U credit.

**CIS 124 (2)****Introduction to WordPerfect**

Introduces students to the concepts and capabilities of word processing software in order to become competent users of Corel WordPerfect in a Windows environment. Through extensive hands-on experience, students will gain the necessary knowledge and skills to create, edit, and enhance documents appropriate for workplace or personal use. No prior experience with computers is required. Two lecture. May be taken for S/U credit.

**CIS 125 (3)****Introduction to Databases**

Database design using the relational model and entity-relation diagrams. Concepts and capabilities of database management system (DBMS) software through extensive hands-on experience. No prior Windows experience necessary. Three lecture. May be taken for S/U credit.

**CIS 127 (3)****Introduction to Desktop Publishing**

Basic and advanced concepts and capabilities of desktop publishing software in the Windows environment through extensive hands-on experience using business and personal applications. Prerequisite: CIS 122, CIS 124, or consent of instructor. Three lecture. May be taken for S/U credit.

**CIS 217 (2)****Web Publishing I**

Design and creation of presentations for publishing on the World Wide Web. Through extensive hands-on experience, students will gain the necessary authoring skills to design, prepare, and edit Web sites that incorporate tables, forms, image maps, Common Gateway Interface (CGI) scripts, multimedia, HTML programming. Covers emerging issues in Web publishing. Prior understanding of the fundamentals of Web page design and experience creating Web pages is required. Prerequisite: CIS 117 or consent of instructor. Two lecture. May be taken for S/U credit.

**CIS 220 (4)****Computer Programming I**

Focuses on using programming language to illustrate good programming practices, application development techniques and visual design. The course will provide students with a good foundation in structured programming concepts and practices. Emphasis placed on the development of small business systems applications. CIS 111 Principles of Programming strongly recommended prior to this course. Prerequisite: CIS 120 or consent of instructor. Four lecture.



**CIS 221 (4)****Computer Programming II**

Focuses on features to construct Java Applets, Java Applications, control structures, methods, arrays, character and string manipulation, graphics, object-oriented programming, and structured. Prerequisite: CIS 220 or consent of instructor. Four lecture.

**CIS 222 (2)****Advanced MS Word**

Extensive hands-on experience in advanced concepts and capabilities of MS Word. Prior experience creating, editing, and formatting documents required. Prerequisite: CIS 122 or consent of instructor. Two lecture. May be taken for S/U credit.

**CIS 223 (2)****Advanced Excel Spreadsheets**

Advanced features of MS Excel spreadsheet software that can be applied for personal use or in a business environment. Features will include: filtering, pivot and data tables, multiple worksheets and summary sheets, mail merge, range names, financial functions, macros, scenario. Prior experience creating, editing, and formatting spreadsheets and charts required. Prerequisite: CIS 123 or consent of instructor. Two lecture. May be taken for S/U credit.

**CIS 224 (2)****Advanced WordPerfect**

Provide students with extensive, hands-on experience using and exploring advanced features of Corel WordPerfect word processing software that will be useful personally and professionally. Advanced features include: newspaper/parallel columns, graphic images, watermarks, TextArt, draw, graphic lines, tables and charts, sorts and selects, templates, merging letters/labels/ envelopes, table of contents, text shortcuts and macros. Prior experience creating, editing, and formatting word processing documents is required. Prerequisite: CIS 124 or consent of instructor. Two lecture. May be taken for S/U credit.

**CIS 230 (4)****Implementing and Supporting Windows**

Installing, configuring, customizing, optimizing and troubleshooting Windows operating system. This course includes integrating Windows with various networks. This course helps to prepare students to take the Microsoft Certified Professional exam for Windows. Prerequisite: CIS 112 or consent of instructor. Four lecture.

**CIS 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Dance

**DAN 100 (2)****Beginning Dance Movement**

Dance movement for adults with no experience in dance. Ballet, character dances, and modern dance movements. Dance movement concepts for exercise. One lecture; two lab. May be taken for S/U credit.

**DAN 105 (2)****Aerobic Dance I**

Aerobic dance as a fun way to develop strength, endurance, and flexibility through strengthening, stretching, and cardiovascular activity. One lecture; two lab. May be taken for S/U credit.

**DAN 110 (2)****Ballet I**

Basic ballet techniques and appreciation of ballet as a form of artistic expression. One lecture; two lab. May be taken for S/U credit.

**DAN 120 (2)****Modern Dance I**

Beginning modern dance technique. One lecture; two lab. May be taken for S/U credit.

**DAN 130 (1)****Concert Dance I**

Performance in specially choreographed dance productions. Methods used in choreography. Two lab. May be taken for S/U credit.

**DAN 140 (1)****Folk Dance I**

Elements of folk dancing. Two lab. May be taken for S/U credit.

**DAN 150 (2)****Jazz Dance I**

Basic jazz dance technique. One lecture; two lab. May be taken for S/U credit.

**DAN 160 (3)****Awareness through Dance**

This is a class for students wishing to gain a greater sense of awareness of themselves through movement and dance techniques. The class incorporates different movement and awareness modalities such as Feldenkreis, yoga, Tai Chi, and improvisational dance. One lecture; four lab. May be taken for S/U credit.



**DAN 170 (3)****Dance for Performing Artists**

Movement techniques and styles for the performing artist. Beginning dance, improvisation, mime, vocalization and stage presence are among the topics covered. Designed for students and performers involved in theatre, musical theatre and opera. Two lecture; two lab. May be taken for S/U credit.

**DAN 180 (3)****Dance Production**

Theory and practice of lighting, scenery, sound, and stage management for dance production. One lecture; three lab. May be taken for S/U credit.

**DAN 199 (0.5-6)****Dance Workshop**

Designed to provide workshop courses based on student and faculty interest in pursuing or presenting an original topic. Workshops may be developed to enhance existing curriculum or to give students experience that is not covered by existing curriculum. One-half to six variable credit hours.

**DAN 200 (2)****Improvisation**

Introduces principles of dance improvisation. Study and development of creative movement sources and potential through exploration of human and environmental relationships. One lecture; two lab. May be taken for S/U credit.

**DAN 211 (3)****Ballet II**

Ballet techniques for the student with previous ballet experience. Two lecture; two lab. May be taken for S/U credit.

**DAN 215 (3)****Teaching Dance for Children**

Theory and practice of teaching creative dance for children. Prerequisites: DAN 200 AND one of the following: DAN 211, or 221, or 250; or consent of instructor. May be taken for S/U credit.

**DAN 221 (3)****Modern Dance II**

Intermediate modern dance techniques. Two lecture; two lab. May be taken for S/U credit.

**DAN 230 (3)****Beginning Choreography**

Introduction to basic choreographic principles including composition and form and content in dance. One lecture; three lab.

**DAN 250 (3)****Jazz Dance II**

Study of technical detail in the development and conditioning of the body for jazz and professional dance today. Two lecture; two lab. May be taken for S/U credit.

**DAN 251 (3)****Jazz Dance III**

Advanced study of the art and technique of jazz dance at a pre-professional level.

Prerequisite: DAN 250 or permission of the instructor. Two lecture; two lab. May be taken for S/U credit.

**DAN 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Drafting

**DFT 110 (3)****Technical Drafting and CAD Fundamentals**

Technical drafting fundamentals, supported by introductions to computer-aided drafting (CAD), enabling the familiarization and visualization of drafting principles, standards, tools, and techniques. Two lecture; two lab.

**DFT 125 (3)****Architectural Drafting I**

Principles of architectural drafting design and techniques. This board drafting course covers fundamentals of design, space, utilization, drafting tool usage, construction drafting requirements, and the development of a set of blueprints. Prerequisite: DFT 110 or consent of instructor. Two lecture; two lab.

**DFT 150 (3)****Auto CAD 2D**

This course will enable students to utilize computer-aided drafting (CAD) in a 2D medium. Prerequisite: DFT 110 or consent of instructor. Two lecture; two lab.

**DFT 170 (3)****CADKey I**

Working knowledge of geometric construction and an introduction to computer-aided manufacturing software program in creating 2D drawings. Two lecture; two lab.

**DFT 200 (3)**  
**AutoCAD 3D**

This course furthers a student's mastery of computer-aided drafting (CAD) by exploring how to unlock the power of 3D through the use of advanced AutoCAD applications. Prerequisite: DFT 150. Two lecture; two lab.

**DFT 210 (3)**  
**Technical Drafting I - CAD 2D**

Application of technical drafting technology using computer-aided drafting (CAD) as the medium for drafting. Auxiliary views, revolutions, dimensioning, tolerancing, fasteners, design, and working drawings shall be covered, utilizing several working drawings. Prerequisite: DFT 150. Two lecture; two lab.

**DFT 225 (3)**  
**Architectural Drafting I - CAD**

Application of construction architectural drawings using the power of computer-aided drafting (CAD) as the medium for drafting. Utilizes working drawings to focus on scale to drawing parameters, symbol libraries, dimensioning, and drawing enhancement. Prerequisites: DFT 125 and DFT 150. Two lecture; two lab.

**DFT 260 (3)**  
**Architectural Drafting II - CAD**

Advanced application of construction architectural drawings using the power of 2D and 3D computer-aided drafting (CAD) as the medium for drafting. Advanced 2D detail views, electrical, mechanical, and plumbing. 3D drawings including floor plans, plot plans, elevations, perspectives, landscape, and detail views, utilizing several working drawings interfacing with a multi-pen plotter. Prerequisites: DFT 200 and DFT 225. Two lecture; two lab.

**DFT 270 (3)**  
**CADKey II**

Advanced knowledge of the 3D capabilities of the computer-aided drafting (CAD) software and the Cartesian coordinate system common to most CAD systems with the addition of the Z axis or depth of a given design. Prerequisite: DFT 170. Two lecture; two lab.

**DFT 298 (1-6)**  
**Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Early Childhood Education

**ECE 100 (3)**  
**Introduction to Early Childhood Education**

An introduction to the profession of Early Childhood Education, including an historical overview, developmentally appropriate practice, cultural diversity, family roles, teacher roles, professional development and current issues. Three lecture.

**ECE 110 (3)**  
**Early Childhood Curriculum**  
The fundamentals of curriculum theory and design appropriate to the developmental needs of young children. Three lecture.**ECE 120 (3)**  
**Health, Safety and Nutrition for the Young Child**  
Provides a study of health, safety and nutrition with related activities including current issues, guidelines and practices in early childhood settings. Three lecture.**ECE 200 (3)**  
**Child Guidance**  
Exploration, through observation and recording, of behaviors of young children. Emphasis placed on positive guidance techniques to promote pro-social behaviors and self-guidance for young children. Prerequisite: PSY 101. Three lecture.**ECE 210 (3)**  
**Creative Arts for the Young Child**  
Evaluating and designing developmentally-appropriate activities for the young child. Emphasis given to visual arts, dramatic play, creative music and movement, exploration and discovery. Three lecture.**ECE 220 (3)**  
**Language Arts for the Young Child**  
Study of theories and practices to assist young children in language and literacy development. Focus on both oral and written literacy through listening, speaking, reading and writing. Three lecture.

**ECE 230 (3)****Exploration and Discovery for the Young Child**

Study of theories, methods and materials for promoting questioning and problem-solving in young children. An emphasis on math and science through discovery and play. Three lecture.

**ECE 240 (3)****School, Family and Community Relations**

Study of the relationship between the child, the family, the community and the early childhood educators. Involves multicultural issues and diversity. Prerequisite: ECE 100. Three lecture.

**ECE 250 (3)****Children with Special Needs**

Survey of information regarding young children with special needs. Includes assessment of needs, curriculum development, available resources, advocacy roles and legislative issues. Prerequisite: PSY 234. Three lecture.

## Economics

**ECN 204 (3)****Macroeconomic Principles**

Basic principles of macroeconomics designed to acquaint the student with workings of the national economy: market economy, national income accounting, fiscal/monetary policy, and the Federal Reserve System. Pre- or co-requisite: ENG 102. General Education: Social and Behavioral Sciences. Special Requirements: Intensive Writing/Critical Inquiry. Three lecture.

**ECN 205 (3)****Microeconomic Principles**

Microeconomic topics of market structures, elasticity, price and output determination, and general equilibrium. General Education: Social and Behavioral Sciences. Three lecture.

**ECN 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Education

**EDU 200 (3)****Introduction to Education**

An examination of the development of education in the United States, the historical development and social foundations of education and

teachings, the student as learner, and current issues and trends in education. This course includes 30 hours of classroom experiential involvement in local schools. Three lecture.

**EDU 222 (3)****Introduction to Special Education**

Study of special education with emphasis on factors relating to current practices, identification, and characteristics of emotionally handicapped, learning disabled, and mentally handicapped children. Three lecture.

**EDU 230 (3)****Cultural Diversity in Education**

Examination of the relationship of cultural values to the formation of the child's self-concept and learning styles, as well as the examination of the role of prejudice, stereotyping and cultural incompatibilities in education. Emphasis on preparing future teachers to offer an equal educational opportunity to children of all cultural groups. Three lecture.

**EDU 250 (3)****The Community College**

Development of the community college in the United States including its mission and role. Compares the community college structure in the state of Arizona with selected community college systems of other states. Three lecture.

**EDU 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Electronic

**ELT 100 (3)****Concepts of Electricity & Basic Electronics**

Electronics, including DC and AC, transistors, optoelectronic devices, linear and digital ICs, and electronic career opportunities. One lecture; three lab.

**ELT 120 (3)****Direct Current (DC)**

Basic electricity theory and components beginning with Ohm's Law and atomic structure and progressing to circuit analysis techniques used in solving series, parallel and series-parallel networks. Uses network theorems to evaluate multisource circuits. Prerequisite: MAT 121 or placement. Two lecture; two lab.



**ELT 130 (3)****Alternating Current (AC)**

Basic electrical theory as it applies to circuits containing capacitance, inductance, and resistance with sinusoidal voltages applied. Simple and complex circuits are studied and measured using instruments such as a signal generator and oscilloscope. Prerequisite: MAT 121 or placement. Two lecture; two lab.

**ELT 135 (3)****Microcomputer Operating Systems & Architecture**

Theory of digital logic gates, characteristics of input/output devices, memory hierarchy, central processing action, program processing, data transfer groups, interrupts, programmable peripheral group, C high level language, parallel/serial ports. Operation of utility programs to analyze system performance, diagnosis and correction of disk problems using real-world applications. Prerequisite: CIS 111. Co-requisite: MAT 121 or consent of instructor. Two lecture; two lab. May be taken for S/U credit.

**ELT 150 (2)****Basic Microcomputer Repair**

Computer operation and operating systems, motherboards, memory expansion, expansion boards, expansion slots, floppy and hard drive controllers, floppy and hard drives, input devices, output devices, gates, and power supplies. One lecture; two lab.

**ELT 151 (3)****Computer Hardware Networking**

Emphasis on computer operation, operating systems and networks. This course helps to prepare students for A+ Certification; emphasis on hardware applications. Prerequisite: ELT 150 or consent of instructor. May be taken for S/U credit.

**ELT 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Emergency Medical Services

**EMS 100 (3)****Emergency Medical Services First Response Training Course**

Working knowledge of emergency medicine per the U.S. Department of Transportation guidelines. Two lecture; two lab.

**EMS 131 (7)****Emergency Medical Technician**

Uses the 1994 curriculum adapted by the Arizona Department of Health Services. Helps prepare students for the Arizona State Department of Health Services EMT Examination. Prerequisites, per DHS standards, are required prior to entry into the course: 18 years old, must have current level "C" CPR certification, show proof of passing certified 9th grade reading level proficiency exam. Evidence of MMR vaccination, TB test six months prior to the start of class. Seven lecture.

**EMS 211 (2)****Emergency Medical Technician Refresher**

Updates basic EMT graduates on new techniques and reviews important principles in client care, basic life support, and transportation of the sick and injured. Emphasizes practical usage and experience in all phases. Meets Arizona Department of Health Services refresher training requirements. Prerequisite: EMS 131 or equivalent. May be repeated for additional credit as an exception to general college policy; maximum of six credits in EMS 211 may apply toward a degree. Two lecture.

**EMS 252 (13)****Intermediate Emergency Medical Technician I**

An approved Arizona Department of Health Services course to upgrade from a certified Emergency Medical Technician. Prerequisite: Certified EMT for one year, and acceptance into course. Ten lecture; six lab.

**EMS 262 (20)****Certified Emergency Paramedic**

Preparation of the basic emergency medical technician to an advanced paramedic provider level. Includes human anatomy and physiology, physical assessment, airway and ventilation techniques, IV therapy, medical emergencies, and trauma patient management required for preparation for EMS 251. Prerequisite: one year as a Certified EMT and acceptance into the program. Thirteen lecture; twenty-one lab.



**EMS 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision.

One to six variable credit hours.

## Engineering

**EGR 186 (3)****Introduction to Engineering Design**

Introduction to design processes, problem-solving techniques, team organization and management with an emphasis on oral and written communication skills. This course is designed to provide the student with skills needed for academic and career success. Prerequisite: ENG 101, or placement.

Pre- or co-requisite: MAT 187. Two lecture; two lab.

**EGR 251 (3)****Applied Mechanics - Statics**

Study of the fundamentals of applied mechanics (Newton's Laws) utilizing force diagrams, vector analysis, equations of equilibrium, moments, and centroids. Prerequisite: PHY 161, MAT 230, and ENG 101. Three lecture.

## English

**ENG 020 (1)****Sentence Structure**

Individualized, self-paced instruction in basic sentence construction, adding elements, and writing a variety of sentences. Audio-tutorial. Prerequisite: consent of advisor. Three lab. May be taken for S/U credit.

**ENG 021 (1)****Grammar Skills**

Individualized, self-paced instruction in grammar with emphasis on correct verb, pronoun, adverb, and adjective usage. Audio-tutorial. Prerequisite: consent of advisor. Three lab. May be taken for S/U credit.

**ENG 022 (1)****Punctuation Skills**

Individualized, self-paced instruction in the use of commas, semicolons, colons, and other punctuation marks. Audio-tutorial. Prerequisite: consent of advisor. Three lab. May be taken for S/U credit.

**ENG 023 (1)****Paragraph Development**

Individualized, self-paced instruction in writing topic sentences and organizing specific support in basic paragraphs. Audio-tutorial. Prerequisite: consent of advisor. Three lab. May be taken for S/U credit.

**ENG 024 (1)****Spelling Improvement**

Individualized, self-paced instruction in spelling with emphasis on hearing, seeing, and writing common English words. Audio-tutorial.

Prerequisite: consent of advisor. One lecture.

May be taken for S/U credit.

**ENG 025 (1)****Vocabulary Improvement**

Individualized, self-paced instruction in strengthening vocabulary with emphasis on prefixes, suffixes, roots, and understanding words in context. Audio-tutorial. Prerequisite: consent of advisor. Three lab. May be taken for S/U credit.

**ENG 029 (3)****Basic Reading Skills**

Word identification, vocabulary in context, and comprehension. Prerequisite: placement or consent of instructor. Three lecture. May be taken for S/U credit.

**ENG 030 (3)****Reading Improvement**

Evaluates and develops reading skills through individual and group work with emphasis on vocabulary, comprehension, identification of main ideas and supporting details. Prerequisite: placement or consent of instructor. Three lecture. May be taken for S/U credit.

**ENG 031 (3)****Advanced Reading Improvement**

Individual and group instruction in mastery of reading skills with emphasis on vocabulary improvement, comprehension, and flexibility of reading rate. Prerequisite: placement or consent of instructor. Three lecture. May be taken for S/U credit.

**ENG 036 (2)****Introduction to English as a Second Language**

Individual and small group work in listening to, speaking, reading, and writing the English language. Prerequisite: consent of instructor. Two lecture. May be taken for S/U credit.

**ENG 037 (3)****English as a Second Language**

Intensive study for improving basic skills in listening to, speaking, reading, and writing in English. Prerequisite: placement or consent of instructor. Three lecture. May be taken for S/U credit.

**ENG 050 (1)****Fundamentals of English Grammar**

Intensive study and review of basic English grammar with emphasis on parts of speech, basic sentence parts and patterns, sentence modifiers, main and subordinate clauses, agreement, punctuation, capitalization, and usage. One lecture. S/U credit only.

**ENG 060 (3)****Basic Writing Skills**

Individual and group work emphasizing grammar in the context of sentence writing and personal essay development. Pre- or co-requisite: ENG 030 or placement. Three lecture. May be taken for S/U credit.

**ENG 100 (3)****Fundamentals of Composition**

Integrated reading/critical thinking/writing approach to basic skills needed for success in college. Extensive writing practice with emphasis on purpose, organization, and revision for clarity and correctness. Pre- or co-requisite: ENG 031 and ENG 060 or placement. Three lecture.

**ENG 101 (3)****College Composition I**

Extensive practice in critical reading, thinking, and writing, with emphasis on using the writing process to communicate in multiple formats, both formal and informal, and for multiple audiences and purposes. Includes documented research. Prerequisites: ENG 100 and ENG 031, or placement. General Education: English Composition. Three lecture.

**ENG 102 (3)****College Composition II**

Continued development of ideas and strategies introduced in ENG 101. Extensive practice in critical thinking, reading, and writing with emphasis on composing analytical essays on literary topics and a documented research paper. Prerequisite: ENG 101. General Education: English Composition. Three lecture.

**ENG 135 (3)****Career Communication**

Effective listening, responding, reading, and writing with emphasis on using these skills in the work place, from job application and interview to on-the-job oral and written communications. Three lecture.

**ENG 136 (3)****Career Writing**

Presents situations and problems that students as business and technical writers will face. Extensive

practice in writing in the workplace including memos, resumes, business letters, and technical reports. Prerequisite: ENG 060 or placement. Three lecture.

**ENG 139 (3)****Introduction to Creative Writing**

Techniques of writing poetry, fiction, and creative nonfiction, with analysis of both published and student writing. Prerequisites: ENG 100, ENG 101 or consent of instructor. Three lecture. May be taken for S/U credit.

**ENG 141 (3)****Critical Reading**

Increasing reading rate flexibility and speed, with emphasis on improving comprehension and analytical reading skills. Prerequisite: ENG 031 or placement. Three lecture.

**ENG 234 (3)****Information Age Communication**

Extensive practice in audience-centered, professional and technical communication. Emphasizes reading and critical analysis of technical writing, and computer-based composing and summarizing of technical concepts for the workplace. Prerequisites: ENG 100, ENG 136, or placement. Three lecture.

**ENG 236 (3)****Introduction to the American Short Story**

Reading and critical analysis of a broad representation of American short stories including the examination of ethnic, race, and gender issues. Prerequisite: ENG 101 or consent of instructor. General Education: Arts and Humanities. Special Requirements: Ethnic/Race/Gender Awareness. Three lecture.

**ENG 237 (3)****Women in Literature**

Literature by and about women with emphasis on stereotypes, changing roles, and psychological and philosophical concerns. Prerequisite: ENG 101 or consent of instructor. General Education: Arts and Humanities. Special Requirements: Ethnic/Race/ Gender Awareness. Three lecture.

**ENG 238 (3)****Literature of the Southwest**

Literature of the land and peoples of the Southwest, the influence and interaction of Native American, Chicano, and Anglo cultures, and contemporary concerns of Southwestern writers. Prerequisite: ENG 101 or consent of instructor. General Education: Arts and Humanities. Special Requirements: Ethnic/Race/Gender Awareness. Three lecture.

**ENG 240 (3)****English Literature I**

A general survey of the major works in English literature from *Beowulf* through the Neoclassical period. Prerequisite: ENG 101 or consent of instructor. Three lecture.

**ENG 241 (3)****English Literature II**

A general survey of the major works in English literature from the Romantic period to the present. Prerequisite: ENG 101 or consent of instructor. Three lecture.

**ENG 270 (3)****Creative Writing: Fiction**

Extensive practice in writing and revising fiction, with emphasis on critical analysis of published models and students' work. Prerequisite: ENG 101 or consent of instructor. Three lecture. May be taken for S/U credit.

**ENG 271 (3)****Creative Writing: Poetry**

Extensive practice in writing and revising poetry, with emphasis on critical analysis of published models and students' poems. Prerequisite: ENG 101 or consent of instructor. Three lecture. May be taken for S/U credit.

**ENG 272 (3)****Creative Writing: Non-Fiction**

Extensive practice in writing and revising various types of creative non-fiction. Emphasis on study of professional models and discussion of students' work. Pre-or co-requisite: ENG 102. General Education: Arts and Humanities. Special Requirements: Intensive Writing/Critical Inquiry. Three lecture. May be taken for S/U credit.

**ENG 273 (3)****Introduction to Shakespeare**

Study of a selection of Shakespeare's plays, selected sonnets, and poems. Includes an investigation into relevant history, social conditions, and literary background. Prerequisite: ENG 101 or consent of instructor. Three lecture.

**ENG 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Environmental Studies

**ENV 111 (3)****Local Environmental Issues**

Learners will examine their local biophysical environment, survey the regional history and economics, and then assess local environmental issues that may affect the health and well being of the local environment. Topics of concern vary depending on specific location and issues of concern. Learners may submit comments of concern to appropriate government officials. Field trips required. May be taken for S/U credit. Three lecture.

**ENV 112 (3)****Regional Environmental Issues**

An examination of Southwest environmental issues including an overview of regional biophysical processes and impacts from human population. Field trips (possibly overnight). Prerequisite: ENG 101; MAT 087, or placement. May be taken for S/U credit. Three lecture; three lab.

**ENV 150 (3)****Introduction to Environmental Engineering**

Environmental engineering, science, and technology. Methods of calculating contaminate levels and associated risk, regulatory approaches, and engineering design of environmental pollution control. Pre- or co-requisites: MAT 151 and CHM 130 or CHM 151. Three lecture.

**ENV 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Fire Science

**FSC 101 (2)****Fire Service Orientation & Indoctrination**

Fire service, history and evaluation of fire department organization, role of the fire service in the fire department organization and in the community. Department function, management, techniques of fire fighting, laws and ordinances, and private fire protection. Two lecture

**FSC 135 (3)****Fundamentals of Fire Prevention**

Role and functions of fire prevention. Practical rather than theoretical aspects of fire prevention. Three lecture.

**FSC 136 (4)****Fire Apparatus & Hydraulics**

Principles of care, maintenance, and operation of fire apparatus and pumps. Pump construction, pumping and pump accessories, power development and transmission, driving, trouble shooting, and producing effective fire streams. Three lecture; two lab.

**FSC 137 (.5)****Hazardous Materials - First Responder Awareness**

Identifies hazardous materials as well as the role of various agencies at the scene of a hazardous materials incident. Recognition and identification, safety considerations, capabilities and limitations, and pre-emergency planning. One-half lecture.

**FSC 138 (3)****Hazardous Materials - First Responder**

Definition, detection, identification, scene management, basic training, equipment planning, strategy, and tactics in the management of hazardous materials incidents. Preparation for Department of Emergency Services certificate. Three lecture.

**FSC 180 (8)****Firefighter I & II**

For the new firefighter or student interested in firefighting. Fire behavior and basic firefighting skills, with hands-on use of firefighting equipment. Prerequisites: FSC 138 and EMS 131. Six lecture; four lab.

**FSC 233 (3)****Introduction to Wildland Fire Suppression**

Provides a fundamental knowledge of the factors affecting wildland fire prevention, fire behavior, and control techniques along with an introduction to the Incident Command System. Covers material from S-190, S-130, I-100, and standards for survival (PMS 416-1). After completion, students may qualify for *Red Card Certification*. Three lecture.

**FSC 234 (3)****Fire Investigation**

Methods of determining point of fire origin and fire cause, and detection of incendiary fires. Includes simplified physics and chemistry necessary to analyze fire behavior. Three lecture.

**FSC 235 (3)****Fire Protection Systems**

Required standard for water supply, protection systems, automatic sprinklers, and special extinguishing systems, including analysis of various automatic signaling and detection systems. Prerequisite: FSC 180 or consent of instructor. Three lecture.

**FSC 236 (3)****Firefighter Occupational Safety**

Informational base to reduce injuries to firefighting personnel. Awareness, training, and research of equipment to develop a safety program to meet the needs of the fire service. Three lecture.

**FSC 238 (3)****Emergency Scene Management**

Effective methods of managing emergency incidents including multiple alarm fires, high-rise fires, brush fires, hazardous materials incidents, and multi-casualty medical incidents. Includes effective interaction among numerous agencies to achieve control. Prerequisite: FSC 180 or consent of instructor. Three lecture.

**FSC 239 (3)****Fire Department Company Officer**

Administrative methods for the fire department in fire safety, department organization, and personnel supervision. Includes elements of management needed for the fire department first-level supervisor. Prerequisite: BUS 209 or consent of instructor. Three lecture.

**FSC 241 (3)****Firefighter Safety & Building Construction**

Safety for firefighters on the fire ground. Effects of fire and heat on various types of building construction resulting in the loss of structure will be explored. Includes signs and symptoms of structural damage. Three lecture.

**FSC 243 (5)****Intermediate Wildland Fire Suppression**

Instructions for an initial attack on wildland fires and the incident command system. Covers material from S-205, S-290, and I-200. After completion students may qualify for *Red Card Certification*. Prerequisite: FSC 233 or consent of instructor. Five lecture.



**FSC 253 (5)****Advanced Wildland Fire Suppression**

Designed to train qualified squad bosses in firing techniques and firing devices along with advanced training in the incident command system. Covers materials from S-234, S-336, and I-300. Prerequisites: FSC 233 and FSC 243 or consent of instructor. Five lecture.

**FSC 298 (1-6)****Special Topics**

Special topics designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## French

**FRE 101 (4)****Beginning French I**

Basic grammar, vocabulary, and culture. Practice in speaking, reading, and writing French. General Education: Options. Four lecture.

**FRE 102 (4)****Beginning French II**

Further emphasis in basic grammar, vocabulary, and culture. Practice in speaking, reading, and writing French. Prerequisite: FRE 101 or consent of instructor. General Education: Options. Four lecture.

**FRE 131 (3)****Conversational French I**

Basic grammar, vocabulary, and culture in conversational practice. Three lecture. May be taken for S/U credit.

**FRE 132 (3)****Conversational French II**

Further development of speaking and listening skills for effective communication in French. Prerequisite: FRE 131 or consent of instructor. Two lecture; one lab. May be taken for S/U credit.

**FRE 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Geography

**GEO 131 (4)****Introduction to Physical Geography**

Natural processes of weather, climate, hydrology, ecology, geology and tectonics, diastrophism, volcanism, denudation, soils, glaciation, and coastal processes emphasizing geographic distribution. General Education: Physical and Biological Sciences. Three lecture; three lab.

**GEO 133 (3)****World/Regional Geography**

Physical (climate, vegetation, landform) and cultural (ethnic, religious, political, economic) attributes of the world's major regions and the interplay between them. Includes a study of world place-name geography. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

**GEO 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Geology

**GLG 101 (4)****Physical Geology**

The study of Earth's processes and materials including rocks and minerals, structures, landforms and their origins. General Education: Physical and Biological Sciences. Three lecture; three lab.

**GLG 102 (4)****Historical Geology**

Chronological study of the sequence of events involved in the creation of the earth and its inhabitants as revealed in the rock record. Prerequisite: GLG 101. General Education: Physical and Biological Sciences. Three lecture; three lab.

**GLG 105 (4)****Introduction to Planetary Science**

A survey of solar system objects and their geologic evolution, surfaces, interiors and atmospheres, and the methods used to study

them; weekly laboratory for data analysis and experiments; may include field trip(s). Three lecture; three lab.

### **GLG 111 (2)**

#### **Geology of Northern Arizona**

Concepts in stratigraphy, volcanology, geomorphology, and glacial and structural geology in the Northern Arizona region. Field trips. One lecture; three lab.

### **GLG 112 (2)**

#### **Geology of the Grand Canyon**

Concepts in stratigraphy, volcanology, geomorphology, and glacial and structural geology in the Grand Canyon. Field trips. One lecture; three lab.

### **GLG 225 (4)**

#### **Invertebrate Paleontology and Paleocology**

Paleontology and the evolution of life on Earth. Survey of invertebrate fossil records for reconstruction of past environments and for dating and correlation of sedimentary formations. Prerequisites: GLG 102 or BIO 182 or consent of instructor. Three lecture; three lab.

### **GLG 240 (2)**

#### **Fundamentals of Geologic Field Methods**

Fundamental procedures and techniques of gathering field data in a geologic setting. Emphasis on regional landforms, structures and stratigraphy. Field trips required. Prerequisite: GLG 101 or consent of instructor. One lecture; three lab.

### **GLG 298 (1-6)**

#### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## **German**

### **GER 101 (4)**

#### **Beginning German I**

Basic grammar, vocabulary, and culture. Practice in speaking, reading, and writing German. General Education: Options. Four lecture.

### **GER 102 (4)**

#### **Beginning German II**

Further emphasis in basic grammar, vocabulary, and culture. Practice in speaking, understanding,

reading, and writing German. Prerequisite: GER 101 or consent of instructor. General Education: Options. Four lecture.

### **GER 298 (1-6)**

#### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## **History**

### **HIS 131 (3)**

#### **U.S. History to 1877**

Study of the peoples and forces that comprise the history of the United States from the pre-Columbian era to the end of Reconstruction (1877). General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness, Ethnic/Race/Gender Awareness. Three lecture.

### **HIS 132 (3)**

#### **U.S. History from 1877**

History of the United States and the peoples and forces that shape it from the end of Reconstruction to the present. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness, Ethnic/Race/Gender Awareness. Three lecture.

### **HIS 135 (3)**

#### **History of Mexico**

Political, economic, and social forces which have created the history of Mexico since independence. Three lecture.

### **HIS 136 (3)**

#### **Women in American History**

Roles and contributions of women in the history of the U.S., with an emphasis on the social and cultural aspects of the feminist movements in the nineteenth and twentieth centuries. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness, Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

### **HIS 201 (3)**

#### **Western Civilization to 1660**

Interdisciplinary approach to the history and development of Western civilizations from the ancient civilization of Egypt and Mesopotamia





to 1660 or the dawning of modern Europe. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

#### **HIS 202 (3)**

##### **Western Civilization from 1660**

Interdisciplinary approach to the history and development of Western civilizations from 1660 to the present. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

#### **HIS 236 (3)**

##### **History of the Southwest**

History of the American Southwest from pre-Colombian times to the present with emphasis on how the physical geography has influenced human settlement and on the various cultures and their contributions. Three lecture.

#### **HIS 237 (3)**

##### **Arizona History**

Arizona history from the pre-Colombian period to present with emphasis on the waves of immigration and the various cultures that have shaped Arizona history. Three lecture.

#### **HIS 238 (3)**

##### **Navajo History**

Examines Diné ("The People") history with emphasis on the role the Navajo have played in the economic, cultural, and political life of the Navajo nation. Three lectures.

#### **HIS 250 (3)**

##### **Asian Civilization through 1644**

Study of the political, social, economical, cultural, and intellectual history of China, Japan, and India to 1644 AD. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness, Ethnic/Race/Gender Awareness. Three lecture.

#### **HIS 251 (3)**

##### **Asian Civilization from 1645**

Study of the political, social, economical, cultural, and intellectual history of China, Japan, and India since 1644 AD. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness, Ethnic/Race/Gender Awareness. Three lecture.

#### **HIS 298 (1-6)**

##### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## **Hotel Restaurant Management**

#### **HRM 100 (3)**

##### **Introduction to Hospitality**

History, policies, and procedures of the hospitality industry as it relates to hotel/restaurant management. Three lecture.

#### **HRM 140 (3)**

##### **Food Production Concepts**

Introductory course identifying and describing the various interrelated components of systematic food service management. Three lecture.

#### **HRM 144 (3)**

##### **Gourmet Foods I**

Appreciation of international foods and their preparation. Includes foods of France, Italy, China, Japan, and Mexico. Three lecture; one lab. May be taken for S/U credit.

#### **HRM 145 (3)**

##### **Gourmet Foods II**

Advanced principles and materials used in international gourmet cooking and baking, including uses of more advanced cookbooks, and expanded identification and use of kitchen tools. Progressive use of spices, herbs, wines (for cooking purposes only), and sauces. Students will, through practical application, prepare, bake, and serve international gourmet foods. Prerequisite: HRM 144 or consent of instructor. Three lecture; one lab. May be taken for S/U credit.

#### **HRM 170 (3)**

##### **Hospitality Information Technology**

Introduction to information processing principles specific to the hospitality industry, basic concepts of hardware and software, and generic software applications. Two lecture; two lab.

#### **HRM 210 (3)**

##### **Guest Service Management**

Overview of the hotel industry, front office management, guest expectations, reservations,





uniformed services, and guest accounting. Also emphasizes the importance of communication and the key role front office plays within the framework of the entire hotel. Three lecture.

**HRM 220 (3)**  
**Property Management**

Introduction to the direction and control of housekeeping operations, personnel and facilities management, problem-solving techniques, and guest security and safety. Three lecture.

**HRM 225 (3)**  
**Hospitality Accounting**

A study of financial statement analysis, management of assets, ratio analysis, analytical techniques, operating budget and investment decision-making. Prerequisite: ACC 101. Three lecture.

**HRM 235 (3)**  
**Hospitality Law**

Differentiate legal issues/laws that impact the hotel's general operations and relationships with its employees and guests. Three lecture.

**HRM 240 (3)**  
**Commercial Food Production**

Introduction to the basic services, operations, principles, sanitation, and presentation techniques associated with the commercial food services industry. Two lecture; three lab.

**HRM 295 (1-6)**  
**Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Human Development Education

**HDE 099 (1)**  
**Research Skills**

Eight-week course designed to teach the skills required to utilize public and academic library resource tools. One lecture; one lab. S/U credit only.

**HDE 101 (2)**  
**Self & Career Exploration**

Exploration of personal interests and strengths and compatible career choices with practical job-

hunting information. Two lecture. May be taken for S/U credit.

**HDE 102 (3)**  
**College Study Skills**

Improvement of academic performance through information, discussion, and experiential activities. Topics include time management, reading textbooks, taking notes, and preparing for tests. Three lecture.

**HDE 104 (3)**  
**Employment Success Strategies**

Techniques for developing professional and personal skills. Includes career exploration, gender awareness, setting personal and professional goals, writing resumes, cover letters and developing interviewing skills, managing time and stress. Legal rights and local community resources. Students will meet and listen to representatives from a wide range of local community service organizations. Recommended: some computer knowledge. Two lecture; two lab. May be taken for S/U credit.

**HDE 131 (2)**  
**Assertive Training**

Consideration of personal rights, identifying blocks to standing up for those rights, and practice in being more assertive. Two lecture. May be taken for S/U credit.

**HDE 132 (1)**  
**Stress Management**

Identifying the sources and effects of stress and learning methods to reduce stress. One lecture. May be taken for S/U credit.

**HDE 133 (1)**  
**Motivation Skills**

Motivation and positive attitude in relationship to personal, interpersonal, academic, and career enhancement and success. One lecture. May be taken for S/U credit.

**HDE 134 (1)**  
**Building Self-Esteem**

Self-image and self-esteem, how to stop negative thinking and behavior, and improve self-esteem. One lecture. May be taken for S/U credit.

**HDE 135 (2)**  
**Self Management Skills I**

Assists in the transition from dependency and low self-esteem to independence, a higher level of self-esteem and personal empowerment. An interactive seminar. Two lecture. May be taken for S/U credit.



**HDE 136 (2)****Self Management Skills II**

Personal and professional development. An interactive working seminar. Prerequisite: HDE 135 or consent of instructor. Two lecture. May be taken for S/U credit.

**HDE 141 (1)****The Job Search**

Job search strategies, interview skills, and resume preparation. One lecture. May be taken for S/U credit.

**HDE 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Humanities

**HUM 235 (3)****American Arts & Ideas**

Cultural development of the arts, literature, and philosophical and religious movements within the United States from the Colonial Period through the present. Pre- or co-requisite: ENG 101. General Education: Arts and Humanities. Three lecture.

**HUM 237 (3)****Mexican-American Arts & Ideas**

Cultural development of the arts, literature, history, religion, ideas, identity, and political impact of the Mexican-American people and their contribution to life in the United States. Three lecture.

**HUM 241 (3)****Humanities I**

Cultural development of the Western World from the ancient Greeks to the Renaissance as reflected in the literature, visual arts, architecture, and performing arts of the various periods. Pre- or co-requisite: ENG 102. General Education: Arts and Humanities. Special Requirements: Intensive Writing/Critical Inquiry. Three lecture.

**HUM 242 (3)****Humanities II**

Cultural development of the Western World from the Renaissance to the present as reflected in the literature, visual arts, architecture, and performing arts of the various periods. Pre- or co-requisite: ENG 102. General Education: Arts and Humanities. Special Requirements: Intensive Writing/Critical Inquiry, Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

**HUM 261 (3)****Asian Ideas & Values**

Examination of Asian literature, religion, and the arts for their humanistic ideas and values. Three lecture.

**HUM 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Industrial Technology - Construction

**ITC 100 (3)****Contractor's License**

Overview of construction business practices and government requirements designed to help the student prepare for obtaining a contractor's license. Three lecture. May be taken for S/U credit.

**ITC 101 (3)****Construction Safety**

This course will introduce the student to safety in the Construction Industry. Emphasis will be placed on safe operation of trade tools and equipment, job site safety and early hazard recognition. Topics covered include: early hazard recognition, safety plans, safe transport and handling of construction materials and equipment, scaffolding set-up techniques, trench shoring and safety, fall prevention planning and associated hazards. Three lecture.

**ITC 110 (3)****Plumbing**

This course will define the plumber's responsibility and introduce the student to the plumbing trade. Topics include: plumbing plans, safety, plumbing materials and fittings, pipe joining techniques, drain-waste and vent systems, water supply systems, fixture installations and leak testing. Emphasis will be placed on safe operation of all trade tools and equipment and job site safety. Three lecture. May be taken for S/U credit.

**ITC 111 (3)****Uniform Building Code**

Safety principles of building construction under the Uniform Building Code, including structural requirements for wood, masonry, fire resistant materials and ratings, and occupancy requirements. Three lecture.

**ITC 120 (3)****Building the Human Environment**

Addresses architectural design and construction building practices, relating some of their psychological and environmental impacts. Historical, current and projected solutions to the human need for shelter and infrastructure are explored. Three lecture.

**ITC 130 (5)****Introduction to the Carpentry Industry**

Introduction to the Carpentry trade as an Apprentice Carpenter/function and procedures of local Apprenticeship. Hand and power tools, measurement and shop projects. Students will also receive State OSHA 510 certification, Industry safety certification, CPR and First Aid certifications. Prerequisite: Registered Apprentice Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 131 (5)****Carpentry Math Applications and Metrics**

Basic Math/Mathematics for Carpentry, SI Metric system, Imperial weights and measure. The application, conversion formula and tables used in the construction industry. Prerequisite: Registered Apprentice Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 132 (5)****Print Reading and Advanced Blueprints**

Understanding working drawings and blue prints for construction projects. Interpretation of blueprints, architectural symbols and specifications in the construction industry. Understanding and use of the different types of drawing including: elevations, sections, details and framing plan. Building codes, zoning, permits and inspections. Prerequisite: Registered Apprenticeship Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 133 (5)****Concrete Formwork**

Concrete technology and the formwork used in the construction of basic footings and walls to the complex formwork of heavy and highway construction. Building layout footing and stemwall designs, retaining walls and wall form construction. Concrete technology and concrete estimation of various form designs. Heavy highway construction including wall form with pilaster, beam/girder, deck forms, concrete stairs, bridge/pier and culverts will be part of this course. Prerequisite: Registered Apprentice Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 135 (3)****Solar Home Design**

Alternative passive solar building techniques such as adobe, earth brick, rammed earth, sand bag, and earth ship will be presented, along with environmental and aesthetic design considerations. Three lecture. May be taken for S/U credit.

**ITC 136 (3)****Photovoltaics & Wind Power**

This course will define the design and installation of photovoltaic and wind power systems. Emphasis will be placed on electrical safety and operation of trade tools and equipment and job site safety. Topics covered: photovoltaic and wind power system plans, safety, electrical materials and fittings, Solar cell panel and wind generator wiring techniques, battery systems, inverters and charge controllers. Three lecture.

**ITC 140 (3)****Blueprint Reading & Estimating**

Reading blueprint construction documents and estimating the amount of building materials needed for building projects. Reading and interpreting architectural schedules, symbols, and specifications. Three lecture.

**ITC 145 (5)****Sheet Metal I**

History and background of the sheet metal apprentice. Basics of drafting, layout and pattern development used in the sheet metal trade. Prerequisite: Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five lecture.

**ITC 146 (5)****Sheet Metal II**

The importance of time management. Layout and pattern development. Use of power equipment and common sheet metal materials, trade mathematics and orientation to air flow movement. Prerequisite: ITC 145, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five lecture.

**ITC 147 (5)****Sheet Metal III**

Safe use of hand tools. Also, seams, locks and types of materials common to the sheet metal industry. Basic mathematics and introduction to service work, and field installation covered. Prerequisites: ITC 146, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five Lecture.

### **ITC 148 (5) Sheet Metal IV**

Field installations emphasizing hanging duct, inserts, equipment and housings. Includes roofs and roof pitch, blueprint reading and sheet metal drafting. Also, residential heating and air conditioning, blowpipe, plastics and fiberglass. Overview of food service equipment. Prerequisites: ITC 147, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five Lecture.

### **ITC 149 (5) Sheet Metal V**

Intermediate drafting skills with more complicated pattern layout development. Operation and safety methods for hand operated shop machines. Use of special materials. Introduction to the use of formulas. Prerequisites: ITC 148, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five Lecture.

### **ITC 150 (3) Electrical Wiring I**

Introduction to DC theory using Ohm's Law, voltage drop, resistance, and current equations. The identification and operation of series, parallel, and series-parallel circuits are covered. Students will learn the necessary precautions to take for various electrical hazards found on the job. Basic OSHA lockout/ tagout procedures and requirements are included. Correct selection, inspection, use and maintenance of common electrical test equipment and an introduction to symbols, specifications, and layout of a building blueprint are covered. Three lecture. May be taken for S/U credit.

### **ITC 151 (4) Electrical Wiring II**

Types and applications of raceways, wireways, and ducts are introduced. Students learn how to cut, ream, thread, hand bend, and connect conduit. Introduction to electrical conductor types, sizes, and placement procedures associated with National Electrical Code (NEC) requirements, methods and procedures in wiring residential, commercial, and industrial facilities. Prerequisite: ITC 150. Four lecture. May be taken for S/U credit.

### **ITC 160 (3) Electrical Wiring III**

Covers alternating current (AC) systems and the application of Ohms Law. Introduction to AC and DC motors including the main parts, circuits, and connections. Grounding, bonding of electrical systems and transportation, storage, and set-up of cable reels will be explored. The inclusion of rigging and procedures for complete cable pulls in raceways and cable tray. Prerequisite: ITC 151. Three lecture. May be taken for S/U credit.

### **ITC 161 (4) Electrical Wiring IV**

Conduit bending up to 6" utilizing a variety of benders, NEC requirements for selecting correct sizes of outlet, pull, and junction boxes, conduit bodies, as well as various types of fittings. NEMA and NEC installation methods and modifications for cable and cable tray. Termination, splicing, and preparation of all sizes of conductors. Selection of single and three phase services, including metering equipment. Identification and application of fuses and breakers including short circuit calculations, description of various types of contactors and relays. The principles of illumination as it applies to residential, commercial and industrial installations are also covered. Prerequisite: ITC 160. Four lecture. May be taken for S/U credit.

**ITC 170 (3)  
Plane Surveying & Building Layout**  
Building layout and surveying to establish building location for excavation and for the accurate placement of the building foundation, including finish floor elevation. Three lecture.

**ITC 171 (3)  
Electrical Construction Wiring**  
Survey of electrical construction processes for residential and light commercial applications. Determining materials, installation processes, safety, and code requirements of electrical construction will be emphasized and applied. Two lecture; two lab.

**ITC 175 (3)  
Mechanical Systems**  
Addresses heating, ventilation, air conditioning systems and plumbing systems in residential structures. Emphasis is placed on system design and layout as well as installation practices. One lecture; four lab.

**ITC 180 (3)  
Building Construction Methods I**  
Floor foundations and interior/exterior framing, including various types and methods of building foundations and framing systems. Three lecture.

**ITC 185 (3)  
Building Construction Methods II**  
Methods, materials, and safe working practices as they relate to balloon, platform, and post and beam construction using wood or wood products. Floor, interior and exterior walls, ceilings, and a general introduction to roofs as they connect or relate to framing types. Three lecture.

**ITC 210 (3)****Structural Design & Building Materials**

Structural analysis In building design, basic relationships between structures and architectural form, principles, concepts, and procedures from statics and mechanics of materials, and analysis of reactions including shear, deflection, flexural, and shearing stresses. Prerequisite: MAT 121 or placement. Three lecture.

**ITC 220 (5)****Framing/Walls, Roofs and Decks**

Rough frame, post and beam, heavy timber construction theory and construction methods. Basic framing tables, roof structures, rafter frame tables, span tables and the construction codes involved in most framing projects. Tools used in the framing industry, such as the framing square and nail gun. Stair building, the different types of lumber used and their grading systems. Prerequisite: Registered Apprentice Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 221 (5)****Carpentry Industry Technology**

Carpentry Industry technology used in the construction of building and other projects that define the professional Carpenter. The use of scaffold, scaffold systems in various applications and the certification needed to meet the current OSHA regulations. The use of rigging tools and technology. The use of the Builder's level, Transit level and the application to building layout in construction. Prerequisite: Registered Apprentice Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 222 (5)****Interior Systems**

Materials, systems and the technology used in the interior construction of modern buildings. Metal stud construction, acoustical ceilings, pedestal floors, and clean room facilities, make up part of this growing industry. Tools, materials and the methods needed to construct interior systems used in commercial and industrial buildings. Prerequisite: Registered Apprentice Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 223 (5)****Interior Finish**

Door hanging, finish hardware, window installation, interior stairs, cabinets, shelving, moldings, casings and plastic laminates are

included in this course. Interior finish tools, materials and procedures needed to perform finish carpentry. Prerequisite: Registered Apprentice Status or permission of the Apprenticeship Coordinator. Three lecture; four lab.

**ITC 224 (3)****Concrete & Concrete Form Systems**

This course will provide instruction in structural and architectural applications of concrete. It will examine concrete chemistry, mix designs, placement and finishing methods, and forming systems. Two lecture; two lab.

**ITC 230 (3)****Construction Supervision & Scheduling**

Function of the construction site supervisor and the process used in scheduling, pre- and post-construction, communication techniques, and documentation of records and reports. Three lecture.

**ITC 235 (3)****Innovative and Alternative Building Techniques**

Innovative and alternative building techniques such as steel framing, SIP, Integra block, Rastra Block etc, adobe, earth brick, rammed earth, Cast Earth, sand bag, papercrete, Straw Bale and "Earth ship" will be presented along with environmental and aesthetic design considerations. These concepts will be integrated with a "Pattern Language" and passive solar design approach for student design projects. Three lecture; one lab. May be taken for S/U credit.

**ITC 245 (5)****Sheet Metal VI**

Advanced layout and pattern development. Use of special sheet metal power equipment. Also, trigonometric functions as applicable to the sheet metal trade and basic principles of refrigeration and air conditioning, field installation procedures. Prerequisites: ITC 149, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five lecture.

**ITC 246 (5)****Sheet Metal VII**

Various types of formulas and their functions. Moving heavy equipment and planning a duct job in the field. Requirements, types, seams, and locks for architectural sheet metal covered. Also, blueprint reading, residential heating and air conditioning, and blowpipe systems.





Prerequisites: ITC 245, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five lecture.

**ITC 247 (5)**  
**Sheet Metal VIII**

Advanced blueprint and detailing including materials estimates. Solar heating principles and installation procedures. Also, use of plastics, installation of food service equipment and sign building. Rigid fibrous duct board, sound attenuation, testing and balancing. Prerequisites: ITC 246, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five lecture.

**ITC 248 (5)**  
**Sheet Metal IX**

Principles of air-flow within duct systems. Includes duct system components, types of duct materials and methods of duct construction. Introduction to welding plastics and metals. Safety stressed. Prerequisites: ITC 247, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five lecture.

**ITC 249 (5)**  
**Sheet Metal X**

Components of blueprint plans to coordinate sheet metal work with other trades. Reading and interpreting of specifications, mechanical plans, electrical plans, industrial plans and specialty plans. Basic principles of air-conditioning. Emphasizes air distribution, outlets, applied load estimating, commercial and residential load estimating, residential and commercial controls, and the metric system. Prerequisites: ITC 248, Indentured Apprentice with the Phoenix Sheet Metal Joint Apprenticeship and Training Committee. Five lecture.

**ITC 250 (4)**  
**Electrical Wiring V**

Transformer types, construction connections, protection, one-line electrical drawings with symbols, capacitors and rectifiers. The use of fuses for overcurrent protection in all types of electrical systems will be stressed. Types of conductors used in wiring systems including installation, current and fill capacities, and temperature ratings. In addition an in depth look at receptacles, switches and other wiring devices will also be covered. Prerequisite: ITC 161. Four lecture. May be taken for S/U credit.

**ITC 251 (4)**  
**Electrical Wiring VI**

Surveys the basic principles of refrigeration and air conditioning, NEC requirements, compressors, and HVAC control wiring and troubleshooting. Motor controls, single and multi-motor calculations, overcurrent protection, and overload protection are also covered as well as determining proper maintenance and trouble shooting applications. All classes of hazardous locations are covered including seals, components, and equipment approved for use in various locations. Prerequisite: ITC 250. Four lecture. May be taken for S/U credit.

**ITC 260 (5)**  
**Electrical Wiring VII**

Survey of the NEC and cable manufacturer's requirements for high voltage terminations and splices. Selection, calculation, assembly, and inspection of terminations and splices will be emphasized. Electrical calculations for service feeders, branch circuits, single and multi-motor circuits, conductor sizing, and overcurrent protection. Survey of basic electronic theory to form a basis for further study of electronic motor and HVAC controls and their related circuitry, cleaning, vibration testing, magnetic centering, testing and metering, power factor, testing running temperatures, and similar maintenance techniques. Operating principals of solid state controls are explained along with their practical applications. Motor braking, jogging, plugging, and safety inter locks are also covered. Prerequisite: ITC 251. Five lecture. May be taken for S/U credit.

**ITC 261 (4)**  
**Electrical Wiring VIII**

The application for commercial, residential and manufacturing of signaling systems and electrical lighting for signs, highways, airports, and outlying areas. Calculate size and installation requirements for potential current, constant current, and shielded transformers. Survey of NEC installation requirements for electrical generators and storage batteries. Survey installation techniques of resistance heating elements, impedance heating, and skin effect heating. Prerequisite: ITC 260. Four lecture. May be taken for S/U credit.

**ITC 298 (1-6)**  
**Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.



## Internship

**INT 210 (1-6)**

### Internship I

Designed for students who are looking for paid or voluntary, practical learning experiences that apply academic and occupational education to real-life, on-the-job situations. Credit hours will be negotiated based on fulfillment of a contract. Each credit hour requires the completion of a minimum 45 hours of on-the-job participation. Prior experience or course work in the field of interest is required. One to six variable credit hours. May be taken for S/U credit.

## Leadership

**LDR 115 (1)**

### Workplace Ethics

Develops awareness of and strategies for identifying, evaluating, and solving ethical dilemmas encountered in the workplace. Application of ethical theory and critical thinking. One lecture. May be taken for S/U credit.

**LDR 200 (2)**

### Leadership Training

Introduction to leadership, teambuilding and communication models in theory and practice. One lecture; two lab.

## Machine Shop

**MCH 110 (3)**

### Intro to Machine Shop

Overview of metal machine practices and shop safety designed to help the student have a better understanding of machine shop procedures. Two lecture; two lab. May be taken for S/U credit.

**MCH 111 (3)**

### Level II Machining

Operation of machine shop tools including: engine lathe operation: set-up, cutting speeds and feed, threading tapers; milling operations: set-up, boring & gear cutting; CNC Milling Machine: Programs in Computer Numerical Control & set-ups. Two lecture; two lab. May be taken for S/U credit.

## Manufacturing and Industrial Technology

**MIT 100 (2)**

### Safety in Industry

Survey of industrial safety practices as they relate to the following: handling, storing, health, equipment, protective clothing, and prevention. State, federal, and industry regulations will be emphasized. One lecture; two lab.

**MIT 105 (1)**

### Metallurgy

A study of pre- and post-manufacturing effects on the mechanical and chemical properties of metals as they apply to manufacturing. One lecture; one lab.

**MIT 120 (1)**

### Rigging

Determine requirements for the movement and positioning of heavy material and equipment through setup, load calculation and equipment usage. Two lab.

**MIT 140 (3)**

### Arc Welding I

Fundamentals of basic arc welding procedures, equipment, and safety techniques. Various arc welding tasks in the flat, horizontal, vertical-up, and overhead positions. Two lecture; two lab.

**MIT 141 (3)**

### Arc Welding II

Advanced arc welding procedures, equipment, and safety techniques. Instruction in the selection of electrode, gas, cups, and filler rod for gas tungsten arc weld (GTAW) welding. Techniques and practice in welding butt-joint, t-joint, lap and corner joints in various positions and numerous cutting procedures. Prerequisite: MIT 140 or consent of instructor. Two lecture; two lab.

**MIT 145 (2)**

### Welding Gases, Flows, Rates, Filler Metals

Identification and utilization of welding gases, flow rates, and the application of filler metals as they apply to various welding applications. One lecture; two lab.

**MIT 165 (2)**

### Welding Tools and Equipment

Survey and proper usage of various tools utilized in the welding manufacturing industry. Identification and maintenance for each of these tools will be stressed. One lecture; two lab.

**MIT 170 (2)****Welding Symbols/Blueprint Interpretation**

Identification of welding symbols and interpretation of working blueprints to provide a hands-on approach to welding manufacturing. One lecture; two lab.

**MIT 200 (3)****Quality Control - Manufacturing**

Identifying and interpreting codes, standards, processes, procedures, material usage, cost controlling, safety, and maintenance issues of quality control. Two lecture; two lab.

**MIT 205 (2)****Weld Testing and Inspection**

Examine and perform mechanical and non-destructive forms of weldment testing to ensure quality, reliability, and strength. Identify the methods of testing and inspection as they apply to welding manufacturing. One lecture; two lab.

**MIT 210 (3)****Layout and Fitting Techniques**

Assemble a project through the interpretation of blueprints which require the layout of materials, equipment, and manpower to fit and assemble a finished product. Prerequisite: MIT 105. Two lecture; two lab.

**MIT 282 (3)****Pipe Welding I**

Welding of cross-country pipe lines in industry: chemical, petroleum, salt water, fresh water, fuel systems, hydraulic systems, mining, and others. Prerequisite: MIT 141 or consent of instructor. Two lecture; two lab.

**MIT 283 (3)****Pipe Welding II**

Welding of cross country pipe along with high pressure pipe and tube. Prerequisite: MIT 282 or consent of instructor. Two lecture; two lab.

**MIT 295 (1-6)****Manufacturing Lab**

Designed to meet the needs of an individual(s) with interest in pursuing additional hands-on experience in a vocational area under faculty supervision. One to six variable lab hours.

**MIT 296 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

# Mathematics

**MAT 033 (1)****Math Workshop**

Designed for students suffering from "Math Anxiety." "Math Anxiety" is defined, discussed and reduction techniques practiced. Study and test-taking skills. Co-requisite: Enrollment in a mathematics course. One lecture.

**MAT 055 (3)****Arithmetic Review**

Review of arithmetic skills, including fractions, decimals, percent, measurement, and geometry. Three lecture.

**MAT 057 (3)****Mathematics for Health Occupations**

Mathematics vocabulary, tools, and concepts needed in the health care workplace including fractions, metric, apothecary, and household measurements, ratios, proportions, and percents. Three lecture.

**MAT 087 (4)****Beginning Algebra with Review**

Basic algebraic concepts including operations with signed numbers, exponents and radicals, linear equations and inequalities, polynomials, and graphing. Prerequisite: MAT 055 or placement. Four lecture.

**MAT 107 (3)****Industrial Mathematics**

Designed for students planning on a technical/vocational career. Includes a review of basic arithmetic operations, proportions and percentages, algebraic equations, with emphasis on applied problems. Also includes geometry, literal equations, graphs, financial problems, the metric system, and averages. Three lecture.

**MAT 108 (3)****Technical Mathematics**

Designed for students planning on a technical/vocational career. Review of basic algebraic operations, a study of right angle trigonometry, with emphasis on applied problems, literal equations, graphs, financial problems, the metric system, and averages. Prerequisite: MAT 107 or placement. Three lecture.

**MAT 121 (4)****Intermediate Algebra with Review**

Review of basic algebraic concepts, including exponents and radicals, systems of equations, polynomials, and graphing quadratic equations. Prerequisite: MAT 087 or placement. Four lecture.

**MAT 124 (3)****Technical problem-solving**

Mathematics topics geared for technical degrees, including ratio, proportion, geometry, coordinate geometry, trigonometry and applications.

Prerequisite: MAT 121 or placement. Three lecture.

**MAT 130 (3)****Mathematics for Elementary Teachers I**

Mathematical foundations of elementary school mathematics curriculum, including problem solving, principles of whole numbers, integers, rational numbers, ratios, proportions and percentages. Emphasizes the use of models and manipulatives to increase understanding of the mathematical concepts. Pre- or co-requisite: MAT 142 or higher. Three lecture.

**MAT 131 (3)****Mathematics for Elementary Teachers II**

Mathematical foundations of the elementary school mathematics curriculum including measurement, geometry, probability and statistics. Emphasizes the use of models and manipulatives to increase understanding of the mathematical concepts. Prerequisite: MAT 130. Three lecture.

**MAT 142 (3)****Applications of College Algebra**

Designed to satisfy math requirements for most non-math/non-science majors. Students will examine social choice, management science, growth and symmetry, statistics, probability, and feasibility through the application of the algebra of functions, graphing, sequences/series, logarithms, exponentials. Prerequisite: MAT 121 or placement. General Education: Mathematics. Three lecture.

**MAT 151 (4)****College Algebra**

College level algebra, including equations, functions, matrices, inequalities, sequences and series, and fundamental algebra theorems will be studied. Prerequisite: MAT 121 or placement. General Education: Mathematics. Four lecture.

**MAT 160 (3)****Introduction to Statistics**

Statistical tools and techniques used in research and general applications. Includes descriptive statistics, probability and probability distributions, point and interval estimates of population parameters, hypothesis testing, and correlation and regression. Prerequisite: MAT 142 or higher. General Education: Options. Three lecture.

**MAT 172 (3)****Finite Mathematics**

Various analytical methods used in business and social sciences, including algebra review, functions and modeling, systems of linear equations, matrices, linear programming, mathematics of finance, probability, and combinations. Prerequisite: MAT 151 or placement. Three lecture.

**MAT 187 (5)****Pre-Calculus**

College level algebra and trigonometric topics to prepare for calculus. Functions, equations, and inequalities, matrices, trigonometry, and fundamental algebra theorems will be studied. Prerequisite: MAT 121 or placement. General Education: Mathematics. Five lecture.

**MAT 212 (3)****Business Calculus**

Integral and differential calculus with business and social science applications. Prerequisite: MAT 151 or higher, or placement. General Education: Mathematics. Three lecture.

**MAT 220 (5)****Calculus & Analytic Geometry I**

Limits, continuity, differential, and integral operations on algebraic and trigonometric functions and applications. Prerequisite: MAT 187 or placement. General Education: Mathematics. Five lecture.

**MAT 230 (5)****Calculus & Analytic Geometry II**

Applications and methods of integration, Taylor polynomials and series, differential equations, multivariable functions and vectors. Prerequisite: MAT 220. General Education: Mathematics. Five lecture.

**MAT 241 (4)****Calculus & Analytic Geometry III**

Multidimensional calculus. Includes conic sections, polar coordinates, partial derivatives, gradients, directional derivatives, extrema, multiple and iterated integrals, vector calculus, line integrals, and Green's Theorem. Prerequisite: MAT 230. General Education: Mathematics. Four lecture.

**MAT 262 (3)****Differential Equations**

Introduction to ordinary differential equations. Includes first order equations, higher order linear equations, applications of first and second order





equations, series solutions, Laplace transforms, and systems of linear differential equations. Prerequisite: MAT 230. General Education: Mathematics. Three lecture.

### **MAT 298 (1-6)**

#### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## **Military Science**

### **MSC 101 (1)**

#### **Basic Military Science I**

Studies the defense establishment and organization of the U.S. Army. Introduces military discipline, traditions, and historical perspectives. Studies the roles of the different branches of the U.S. Army in our nation's defense. Includes training in marksmanship, field craft, rappelling, and first aid. One lecture.

### **MSC 102 (1)**

#### **Basic Military Science II**

Studies outdoor survival techniques and how to survive in various emergency situations. Acquaints students with basic soldier skills. Includes training in building shelters, procuring food and water, primitive tool making, primitive fire making, first aid, land navigation, and field craft. One lecture.

### **MSC 130 (1)**

#### **Leadership Lab I**

Studies military leadership through practical application and challenging outdoor activities. Includes training in troop leading organizational procedures, how to prepare operation orders, how to perform basic tactical exercises, and how to prepare and give classes in an outdoor environment in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered in Fall semester only. One lab.

### **MSC 131 (1)**

#### **Leadership Lab I**

Studies military leadership through practical application and challenging outdoor activities. Includes training in troop leading organizational procedures, how to prepare operation orders, how to perform basic tactical exercises, and how

to prepare and give classes in an outdoor environment in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered in Spring semester only. One lab.

### **MSC 150 (1)**

#### **Army Physical Fitness I**

Improves the physical fitness of students and develops a physical fitness program tailored to the student's needs and abilities. The focus of the course is to develop personal knowledge of the components of a good fitness program, improve individual fitness levels through scheduled training, and gain an understanding of the U.S. Army physical fitness training (PT) and testing doctrine. The course is designed to train students to meet Army physical fitness standards. Includes training in troop leading procedures in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered in Fall semester only. One lecture.

### **MSC 151 (1)**

#### **Army Physical Fitness I**

Improves the physical fitness of students and develops a physical fitness program tailored to the student's needs and abilities. The focus of the course is to develop personal knowledge of the components of a good fitness program, improve individual fitness levels through scheduled training, and gain an understanding of the U.S. Army physical fitness training (PT) and testing doctrine. The course is designed to train students to meet Army physical fitness standards. Includes training in troop leading procedures in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered in Spring semester only. One lecture.

### **MSC 203 (1)**

#### **Land Navigation and Orienteering**

Studies land navigation and orienteering techniques as well as first aid. Acquaints students with basic soldier skills. Includes training in how to use a map and compass, land navigation, direction finding, and first aid. One lecture.

**MSC 204 (1)****Basic Military Skills**

Studies military leadership through discussions about leadership styles, traits and responsibilities. Includes training in troop leading organizational procedures, how to prepare operation orders, how to perform basic tactical exercises, and how to prepare and give briefings in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. One lecture.

**MSC 230 (1)****Leadership Lab II**

Studies military leadership through practical application and challenging outdoor activities. Includes training in troop leading organizational procedures, how to prepare operation orders, how to perform basic tactical exercises, and how to prepare and give classes in an outdoor environment in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered Fall semester only. One lab hour.

**MSC 231 (1)****Leadership Lab II**

Studies military leadership through practical application and challenging outdoor activities. Includes training in troop leading organizational procedures, how to prepare operation orders, how to perform basic tactical exercises, and how to prepare and give classes in an outdoor environment in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered Spring semester only. One lab hour.

**MSC 250 (1)****Army Physical Fitness II**

Improves the physical fitness of students and develops a physical fitness program tailored to the student's needs and abilities. The focus of the course is to develop personal knowledge of the components of a good fitness program, improve individual fitness levels through scheduled training, and gain an understanding of the U.S. Army physical fitness training (PT) and testing doctrine. The course is designed to train students to meet Army physical fitness standards. Includes training in troop leading procedures in preparation for the Advanced Army ROTC Program and commissioning as an officer

in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered Fall semester only. One lecture.

**MSC 251 (1)****Army Physical Fitness II**

Improves the physical fitness of students and develops a physical fitness program tailored to the student's needs and abilities. The focus of the course is to develop personal knowledge of the components of a good fitness program, improve individual fitness levels through scheduled training, and gain an understanding of the U.S. Army physical fitness training (PT) and testing doctrine. The course is designed to train students to meet Army physical fitness standards. Includes training in troop leading procedures in preparation for the Advanced Army ROTC Program and commissioning as an officer in the United States Army, Arizona National Guard, or United States Army Reserves. This course is offered Spring semester only. One lecture.

## Music

**MUS 090X (2)****Introduction to Music Theory**

Introduction and review of the fundamentals of music: reading, notation, rhythm, scales, intervals, triads, sight-singing, and dictation. Four lab. May be taken for S/U credit.

**MUS 100 (3)****Music Appreciation**

Development of understanding and enjoyment of various musical forms and styles. Including an introduction to musical history. Relates concepts of music style and technique to those of other arts. General Education: Arts and Humanities. Three lecture.

**MUS 101 (1)****Private Music I**

Individual, self-paced instruction in piano, organ, voice, guitar, band, or orchestra instruments. One 30-minute lesson each week. Two lab.

**MUS 104 (1)****Class Piano I**

Piano techniques and music reading for music majors or intermediate-level piano students. Prerequisite: MUP 103 or consent of instructor. One lecture; one lab.

**MUS 120 (2)****Theory Preparation**

Review of the fundamentals of music: reading, notation, rhythm, scales, intervals, triads, sight-singing and dictation. Four lab. May be taken for S/U credit.

**MUS 121 (2)****Harmony I**

Review of the fundamentals of music followed by study of diatonic melodies, chords, progression, inversion, voicing, voice leading, cadences, and non-chord tones. Prerequisite: MUS 120 or consent of instructor. Four lab. May be taken for S/U credit.

**MUS 130 (3)****Fundamentals of Music**

Basic elements of music including study of the staff, clefs, signatures, notes, rhythms, definitions, ear training, sight singing, and dictation. Three lecture.

**MUS 131 (3)****Sight Singing & Dictation I**

introductory course in conceptualizing written diatonic melodies before hearing them (sight singing) and transcribing them into musical notation after hearing them (dictation). Prerequisite: MUS 120 or consent of instructor. Four lab. May be taken for S/U credit.

**MUS 145 (3)****Jazz History & Literature**

History and development of jazz music from its origin to the present day. General Education: Arts and Humanities. Three lecture.

**MUS 199 (0.5-6)****Music Workshop**

Designed to provide workshop courses based on student and faculty interest in pursuing or presenting an original topic. Workshops may be developed to enhance existing curriculum or to give students experience that is not covered by existing curriculum. One-half to six variable credit hours.

**MUS 201 (3)****Music History & Literature I**

Survey of music from the ancient world to the middle of the 18th century. Presents the growth of music through the contrapuntal schools, culminating in the works of J.S. Bach. The development of opera and oratorio and the rise of homophonic music are studied. Three lecture.

**MUS 202 (3)****Music History & Literature II**

Survey of music from the 18th century to the present. Study is devoted to the art of song, the nationalist

schools, the principal composers of the classical, romantic, and modern periods, and to masterpieces of music of these periods. Three lecture.

**MUS 205 (1)****Conducting**

Fundamentals and rehearsal techniques, organization, materials, and interpretation of literature for performing ensembles. Two lab. May be taken for S/U credit.

**MUS 207 (3)****Music in America**

Develops listening skills and an understanding of how American geography, history, politics, and economics relate to the development of selected musical styles. Three lecture. May be taken for S/U credit.

**MUS 210 (3)****Introduction to the Music Industry**

A detailed introduction to the business of the music industry. Includes the legal, marketing and other business aspects of the music and entertainment industry. Three lecture. May be taken for S/U credit.

**MUS 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Music Performance

**MUP 101 (2)****Piano for Non-Majors I**

Basic techniques of piano playing, including some literature. No prior piano experience required. One lecture; two lab. May be taken for S/U credit.

**MUP 102 (2)****Piano for Non-Majors II**

Further instruction in beginning piano techniques. Prerequisite: MUP 101 or consent of instructor. One lecture; two lab. May be taken for S/U credit.

**MUP 103 (2)****Piano for Non-Majors III**

Advanced instruction in piano techniques. Prerequisite: MUP 102 or consent of instructor. One lecture; two lab. May be taken for S/U credit.

**MUP 105 (1)****Voice Class I**

Fundamentals of singing. Three lab. May be taken for S/U credit.



### **MUP 107 (1)** **Guitar I**

Beginning instruction on guitar including open position scales, arpeggio studies, chord forms, rhythm accompaniment, fundamentals of music theory, note reading studies, picking techniques. Instruction in and exploration of basic classical/flamenco, folk, country, blues, and rock styles in playing. No guitars provided. One lecture; one lab. May be taken for S/U credit.

### **MUP 108 (2)** **Guitar II**

Second level instruction on guitar including moveable position scales and arpeggios, moveable chord form, melodic rhythm accompaniment, music theory, all major keys, reading music and notation, picking variations. Instruction in and exploration of more complex music styles in classical/flamenco, folk, country, blues, and rock. Prerequisite: MUP 107 or consent of instructor (audition). One lecture; two lab. May be taken for S/U credit.

### **MUP 110 (1)** **Woodwind Ensemble**

Rehearsal and public performance of standard ensemble literature for woodwind instruments. Two lab. May be taken for S/U credit.

### **MUP 110A (1)** **Saxophone Ensemble**

Saxophone ensemble literature, in both classical and jazz styles. Two lab. May be taken for S/U credit.

### **MUP 111 (1)** **Community Band**

Performance group focusing on band music from the popular literature of the Gay Nineties through the World Wars, as well as music from Broadway and the Theaters. Two lab. May be taken for S/U credit.

### **MUP 113 (1)** **Jazz Ensemble**

Performance group focusing on jazz from 1900 to the present. The works performed will depend on the available instrumentation of the group and the choice of the instructor. Two lab. May be taken for S/U credit.

### **MUP 117 (1)** **Community Orchestra**

Rehearsal and public performance of standard orchestral literature. Two lab. May be taken for S/U credit.

### **MUP 119 (1)** **Recorder Ensemble I**

Rehearsal and performance of selected recorder ensemble repertoire. Two lab. May be taken for S/U credit.

### **MUP 120 (1)** **String Ensemble**

Rehearsal and public performance of standard ensemble literature for string instruments. Two lab. May be taken for S/U credit.

### **MUP 121 (1)** **College Choir**

Performance group with participation based on auditions with the director. Attendance at all rehearsals and participation in all public performances is required. Two lab. May be taken for S/U credit.

### **MUP 125 (1)** **Community Choir**

Performance group focusing on choral music from the popular literature of the Gay Nineties through the World Wars, as well as music from Broadway and the Theatres. Two lab. May be taken for S/U credit.

### **MUP 128 (1)** **Jazz Improvisation I**

Basic jazz scales, chords, and rhythms, and jazz pieces exemplifying these basics. Two lab. May be taken for S/U credit.

### **MUP 199 (0.5-6)** **Music Performance Workshop**

Designed to provide workshop courses based on student and faculty interest in pursuing or presenting an original topic. Workshops may be developed to enhance existing curriculum or to give students experience that is not covered by existing curriculum. One-half to six variable credit hours.

### **MUP 207 (2)** **Guitar III**

Third level of instruction on guitar. Emphasis on playing techniques which combine scales, arpeggios, chords, rhythm and lead guitar patterns; control over rhythm patterns including triplet and sixteenth note exercises, syncopation, and constant base coordination. More intricate techniques applied to classical/flamenco, folk, country, blues, and rock styles of music. No guitars provided. Prerequisite: MUP 108 or consent of instructor (audition). One lecture; two lab. May be taken for S/U credit.

### **MUP 209 (2)** **Blues Guitar**

Introduction to a variety of blues guitar styles and techniques. Course will include blues rhythm and lead guitar techniques,





finger-picking and beginning slide guitar. Delta, Texas, Chicago styles, and others will be covered. No guitars provided. Prerequisite: MUP 108 or consent of instructor (audition). One lecture; two lab. May be taken for S/U credit.

#### **MUP 298 (1-6)**

##### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Navajo

#### **NAV 101 (4)**

##### **Beginning Navajo I**

Basic grammar, vocabulary, and culture. Practice in speaking, reading, and writing Navajo. General Education: Options. Four lecture.

#### **NAV 102 (4)**

##### **Beginning Navajo II**

Further emphasis on basic grammar, vocabulary, and culture. Practice in speaking, reading, and writing Navajo. Prerequisite: NAV 101 or consent of instructor. General Education: Options. Four lecture.

#### **NAV 201 (4)**

##### **Intermediate Navajo I**

Emphasis on improving basic skills in speaking, comprehension, reading, and writing. Taught in Navajo. Prerequisite: NAV 102 or consent of instructor. Four lecture.

#### **NAV 202 (4)**

##### **Intermediate Navajo II**

Further development of speaking and writing communication skills with emphasis on compositions and readings of the Diné language. Taught in Navajo. Prerequisite: NAV 201 or consent of instructor. Four lecture.

#### **NAV 298 (1-6)**

##### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Nursing

#### **NUR 110 (3)**

##### **Nursing Assistant I**

Basic concepts common to all members of the health team in acute and long-term care settings. Basic principles of communication, nutrition, emergency care, medical terminology, environmental safety and comfort, and how ethical/legal aspects of health care apply. Basic nursing skills based upon fundamental nursing concepts in giving individualized client care. Two lecture; three lab. Proof of liability insurance required.

#### **NUR 298 (1-6)**

##### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Nutrition

#### **NTR 135 (3)**

##### **Human Nutrition**

Principles of nutrition in critical periods throughout the life cycle, diet in disease, and the essentials for the nutritional care of people suffering from various diseases. Prerequisites: CHM 090, CHM 130 or CHM 151. Three lecture.

#### **NTR 298 (1-6)**

##### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Office Information Systems

#### **OIS 100 (1)**

##### **Keyboarding**

Touch-method skills while keyboarding on a ten-key or computer keyboard. One lecture; one lab.

#### **OIS 110 (3)**

##### **Keyboarding Review & Speed**

Keyboarding skills with specific word processing and general computer application skills. Review touch method skills. Elementary keyboarding skills recommended. Three lecture. May be taken for S/U credit.

**OIS 130 (3)****Machine Transcription**

Transcribing business correspondence and documents from machine dictation with speed and accuracy. Emphasizes improving business grammar and proofreading techniques.

Prerequisites: OIS 110 or consent of instructor, and CIS 122 or CIS 124. Three lecture.

**OIS 200 (3)****Professional Office Skills**

Standard office procedures including specific practical skills needed in technical/computer knowledge, office support activities, communication, decision-making, and career employment and advancement. Prerequisite: OIS 110 or consent of instructor. Three lecture.

**OIS 210 (3)****Keyboarding with Applications**

Emphasis on keyboarding, specific word processing, and formatting skills needed for personal and workplace communications. Speed and accuracy is required in all document production activities. Prerequisite: OIS 110 or consent of instructor. Three lecture. May be taken for S/U credit.

**OIS 230 (3)****Medical Transcription**

Terminology used in a medical office with emphasis on preparing medical documents accurately and developing transcription skills using transcription machines. Prerequisites: OIS 130 or consent of instructor, and AHS 131. Three lecture. May be taken for S/U credit.

**OIS 240 (3)****Legal Transcription**

Terminology used in a legal office with emphasis on preparing legal documents accurately and developing transcription skills using transcription machines. Prerequisite: OIS 130 or consent of instructor. Three lecture. May be taken for S/U credit.

**OIS 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Philosophy

**PHI 101 (3)****Introduction to Philosophy**

Philosophical readings, discussion, and analysis on topics including metaphysics, truth, knowledge, and ethics. General Education: Arts and Humanities. Special Requirements: Contemporary Global/ International Awareness OR Historical Awareness. Three lecture.

**PHI 103 (3)****Introduction to Logic**

The systematic study, with emphasis on analysis and evaluation, of arguments. Topics will include both classical and current arguments from various disciplines of study. Three lecture

**PHI 105 (3)****Introduction to Ethics**

Key concepts and problems in ethics and social/political philosophy. Historic and contemporary reading with application to modern concerns. General Education: Arts and Humanities. Special Requirements: Ethnic/Race/Gender Awareness. Three lecture.

**PHI 235 (3)****Introduction to Feminist Theory**

Exploration of feminist theories and feminist world views. Special emphasis on gender images and roles in traditional philosophical texts, historical overview of the development of feminist theory, and conflicts within contemporary feminist theory. Three lecture.

**PHI 245 (3)****Introduction to Eastern Philosophy**

This course is an examination of the historical development of fundamental theories in Eastern thought. Focusing on Indian, Chinese, and Japanese epistemology, ethics, metaphysics; includes comparison of eastern and western philosophies and thinkers. Prerequisite: ENG 101 or consent of instructor. Three lecture.

**PHI 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.



## Physical Education

### **PHE 220 (2)**

#### **Water Safety Instructor**

Water safety techniques leading to certification by the American Red Cross. Two lecture.

### **PHE 229 (2)**

#### **First Aid & CPR**

Procedures and techniques in first aid, leading to the acquisition of the American Red Cross Emergency Response Certificate and the CPR for the Professional Rescuer Certificate. Two lecture. May be taken for S/U credit

### **PHE 298 (1-6)**

#### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Physics

### **PHY 090 (3)**

#### **Basic Physics**

Introductory physics course designed for students who have not had physics before and are planning to take college or university physics. Topic includes physics principles, reasoning and problem-solving techniques. The focus will be on dimensional and vector analysis and force diagrams. Prerequisite: MAT 121 or placement. Three lecture.

### **PHY 107 (4)**

#### **Concepts of Physics**

Designed for non-science majors. An in-depth look at physical interactions including Newton's Laws, conservation of energy and momentum, electricity and magnetism, heat, wave theory, nuclear transformation, relativity and quantum theories. Prerequisite: MAT 087 or placement. General Education: Physical and Biological Sciences. Three lecture; three lab.

### **PHY 111 (4)**

#### **College Physics I**

Algebra-based study of motion, static and dynamic mechanics, waves and sound. Prerequisites: MAT 187 or placement and either PHY 090 or high school physics. General Education: Physical and Biological Sciences. Three lecture; three lab.

### **PHY 112 (4)**

#### **College Physics II**

Algebra-based study of electricity and magnetism, light, optics, and atomic structure. Prerequisite: PHY 111. General Education: Physical and Biological Sciences. Three lecture; three lab.

### **PHY 161 (4)**

#### **University Physics I**

First semester calculus-based physics course designed for pre-engineering and pre-science majors. Mechanics, motion, statics and dynamics, work, power and energy, impulse, and momentum will be studied. Prerequisites: MAT 220 and either PHY 090 or high school physics or higher. General Education: Physical and Biological Sciences. Three lecture; three lab.

### **PHY 180 (4)**

#### **Introduction to Astronomy**

Motion and structure of the sun, planets, constellations, comets, asteroids, and meteors. Cosmic explosions, quasars, and stellar evolution including white dwarfs, neutron stars and black holes. Lab component requires numerous night observations. General Education: Physical and Biological Sciences. Three lecture; three lab.

### **PHY 253 (4)**

#### **Archaeoastronomy**

Examination of how pre-historical societies used celestial movements to anticipate ceremonial and survival activities. Concentrates on motions of the sky, research methodologies and cultural interpretation of sites. Field trips. Co-requisite: MAT 151 or consent of instructor. General Education: Physical and Biological Sciences. Special Requirements: Ethnic/Race/Gender Awareness, Contemporary Global/International Awareness OR Historical Awareness. Three lecture; three lab.

### **PHY 262 (4)**

#### **University Physics II**

Second semester calculus-based physics course. Topics include electrostatic phenomena, conductors, electric and magnetic fields, resistance, capacitance, and other basic circuit components and analysis, and magnetic forces and currents. Prerequisite: PHY 161. Pre- or co-requisite: MAT 230. General Education: Physical and Biological Sciences. Three lecture; three lab.

### **PHY 298 (1-6)**

#### **Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.



## Political Science

### POS 101 (3)

#### Introduction to Politics

Issues in contemporary political analysis, human values, and political goals; how governments differ and change; relationship between individuals and government; how nation-states influence one another. General Education: Social and Behavioral Sciences. Three lecture.

### POS 110 (3)

#### American National Government

Introduction to the American national government; constitutional and philosophical foundations, federalism, structure and evolution of the federal government, and recent trends and issues in the federal government. General Education: Social and Behavioral Sciences. Three lecture.

### POS 120 (3)

#### Introduction to World Politics

Introduction to the international system, its actors and their capabilities; international political economy; ends and means of foreign policy; international cooperation, tension, and conflict. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

### POS 140 (3)

#### Introduction to Public Administration

Political context of American Public Administration, alternative frameworks for the analysis of the policy process in government agencies, the budgetary process, accountability and responsibility in government, bureaucratic politics, and administrative reform and reorganization. Three lecture.

### POS 201 (3)

#### Introduction to Political Ideologies

Political ideas and belief systems, including liberalism, conservatism, Marxism, fascism, and feminism: the functions of ideology for the individual and society. Three lecture.

### POS 220 (3)

#### Arizona & National Constitution

Basic course in Arizona and United States governments and constitutions, designed to meet the requirements for Arizona state teaching certification. Pre- or co-requisite: ENG 102. General Education: Social and Behavioral Sciences. Special Requirements: Intensive Writing/Critical Inquiry. Three lecture.

### POS 221 (1)

#### Arizona Constitution & Government

Arizona Government and Constitution, designed to meet the requirements for Arizona state teaching certification. One lecture.

### POS 222 (2)

#### National Constitution & Government

United States Government and Constitution, designed to meet the requirements for Arizona state teaching certification. Two lecture.

### POS 233 (3)

#### Global Environmental Politics

International politics of ecological problems that confront humanity. Nature of global problems related to population, food, energy, non-fuel resources, pollution, and other forms of environmental degradation, and the responses of nations and international organizations to these problems. Conflicts over the use and management of the resources of international commons, in particular the oceans and other non-national areas. An evaluation of historical developments, tracing value systems, and ethical dilemmas. General Education: Social and Behavioral Sciences. Special Requirements: Contemporary Global/International Awareness OR Historical Awareness. Three lecture.

### POS 298 (1-6)

#### Special Topics

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Psychology

### PSY 100E (2)

#### Effective Psychology for Parents

Designed to assist parents or those who work with children in developing effective communication skills and understanding the fundamental principles of behavior. Two lecture. May be taken for S/U credit.

### PSY 101 (3)

#### Introduction to Psychology

A foundation course in the science of behavior; including a survey of the basic principles, methods and fields of psychology such as learning, memory, emotion, perception, physiological, developmental, social and abnormal. General Education: Social and Behavioral Sciences. Three lecture.



**PSY 102 (3)****Personal Growth & Development**

Adjustment problems such as marriage, work, anxiety, and prejudice. Contemporary sources of stress such as alcohol and drug abuse, violence against women, sexual dysfunction, aging, job hunting, career decisions, and other issues. Three lecture.

**PSY 205 (3)****Introduction to Abnormal Psychology**

Distinguishes between normal behavior and psychological disorders. Subjects may include stress disorders, problems with anxiety and depression, unusual and abnormal sexual behavior, schizophrenia and addictive behaviors. Causes and treatments of psychological problems and disorders are discussed. Prerequisite: PSY 101. Three lecture.

**PSY 227 (3)****Personality Theory**

Survey and comparison of different personality theories, including the dynamics that underlie personality development, assessment, and research. Prerequisite: PSY 101. Pre- or co-requisite: ENG 102. General Education: Social and Behavioral Sciences. Special Requirements: Intensive Writing/Critical Inquiry. Three lecture.

**PSY 230 (3)****Introduction to Statistics**

Basic concepts in descriptive and inferential statistics, emphasizing application to the behavioral sciences. Includes methods of data collection, sampling techniques, central tendency, standard scores, correlation and regression, and hypothesis testing. Student's *t* test, non-parametric analysis, and analysis of variance. Prerequisite: MAT 142 or higher, or placement. Three lecture.

**PSY 234 (3)****Child Growth & Development**

Genetic, prenatal, and postnatal influences on the development of the child, emphasizing motivation, learning and perception. Prerequisite: PSY 101 or consent of instructor. Three lecture.

**PSY 236 (3)****Psychology of Women**

Cross-cultural study of the definition, trends, and issues of the psychological status of women by examining and evaluating theories of psychology, as well as operative forces behind women's role in society. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness. Three lecture.

**PSY 240 (3)****Developmental Psychology**

Life span development, including the scientific study of normal physiological, emotional, cognitive, and social development and the factors that influence this development, from conception until death. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness. Three lecture.

**PSY 241 (3)****Substance Abuse**

Physical, social, and psychological effects of substance abuse. Three lecture.

**PSY 250 (3)****Social Psychology**

Introduction to the study of social psychological processes including those of persuasion and conformity, leadership and dominance, aggression and altruism, attraction and friendship formation, attitude formation and change, intercultural encounters and nonverbal behavior. Prerequisite: PSY 101. Pre- or co-requisite: ENG 102. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness, Intensive Writing/Critical Inquiry. Three lecture.

**PSY 280 (3)****Introduction to Health Psychology**

A survey of the contributions of psychology to health promotion and maintenance, illness prevention and treatment, and related health issues. Prerequisite: PSY 101. Three lecture.

**PSY 290 (4)****Research Methods in Psychology**

Introduction to the scientific methodologies employed in the study of psychology. This course will require student involvement in the reviewing and analyzing of scientific literature, designing and conducting experiments, collecting and analyzing data, interpreting results, and reporting experimental findings using APA format. Prerequisites: PSY 101 and PSY 230. Co-requisite: ENG 102. Three lecture; three lab.

**PSY 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Real Estate

### RES 101 (3)

#### Real Estate Principles

National and Arizona Real Estate requirements, real estate business, real estate law, agency, contracts, ownership, legal descriptions, title, finance, listing, and leases. Three lecture.

### RES 102 (3)

#### Real Estate Practices

National and Arizona Real Estate requirements, property management, appraisals, land use, fair housing, real estate investment, closings, and real estate mathematics. Three lecture.

### RES 103 (3)

#### Escrow Principles & Practices

Procedural aspects required to establish and administer title closing, escrow, determination of settlement requirements, and funding. Prerequisite: RES 101. Three lecture.

### RES 104 (3)

#### Title Examination Procedures

Essentials needed for proper understanding and examination of titles to real property and roles taken in this process by title companies, courts, and other agencies. Prerequisite: RES 101 or consent of instructor. Three lecture.

### RES 105 (3)

#### Real Estate Law

Legal concepts of real estate land description, real estate property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title. Three lecture.

### RES 106 (3)

#### Real Estate Appraisal

Purpose and function of an appraisal, determinants of value, and appraisal case studies. Emphasizes cost, market data, and income approaches to value estimates including correlation and report writing. Prerequisite: BUS 100 or consent of instructor. Three lecture.

### RES 107 (3)

#### Real Estate Finance

Lending institutions and practices, loan application, alternative financing sources of funding real property, FHA, and VA. Covers commercial and industrial areas of finance. Three lecture.

### RES 108 (3)

#### Property Management

Role of the property manager, landlord policies, operational guidelines, leases, lease negotiations, tenant relations, maintenance reports, habitability, laws and the Fair Housing Act. Three lecture.

### RES 109 (3)

#### Real Estate Investment

Nature and intent of investing in real property. Concepts of leverage benefits, risks, and taxation; residential, commercial, industrial, and land investment strategy. Prerequisite: RES 102 or consent of instructor. Three lecture.

### RES 110 (3)

#### Planning & Zoning Issues

Land use controls and their impact on land use. Covers a master land use plan and how development is affected by land use categories from the zoning codes adopted by cities, counties, and states. Three lecture.

### RES 111 (3)

#### Real Estate Marketing

Marketing strategies, concepts of pricing, product packages, promotion, listing approaches, and the Deceptive Trade Practices Consumer Protection Act requirements. Three lecture.

### RES 112 (3)

#### Real Estate Brokerage

Law of Agency, planning and organization, operational policies and procedures, records and control, brokerage analysis and expansion criteria, and recruiting, selection and training of personnel. Three lecture.

### RES 298 (1-6)

#### Special Topics

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Recreation

### REC 298 (1-6)

#### Special Topics

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Religious Studies

### REL 201 (3)

#### Comparative Religions

Study of the world's religions including philosophical concepts pertaining to the existence and nature of God. Prehistoric and recent non-literate religions, Native American religions, Judaism, Christianity, Islam, Hinduism, and Eastern religions. General Education: Arts and Humanities. Special Requirements: Contemporary Global/ International Awareness OR Historical Awareness. Three lecture.

### REL 202 (3)

#### New Testament

An examination of the New Testament canon, together with a study of New Testament backgrounds and Palestinian communities of the apostolic age. Three lecture.

### REL 203 (3)

#### Old Testament (Hebrew Bible)

An examination of the Old Testament canon, which formulates the Hebrew Bible, together with a study of ancient Near Eastern backgrounds. Three lecture.

### REL 241 (3)

#### Asian Religions

An examination of Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism, and Shintoism, including their respected myths, symbols, rituals, doctrines, moral codes and artistic expressions. Three lecture.

## Science

### SCI 087 (2)

#### Basic Skills in Science

Review of basic math, writing, and science skills. Intended to increase students' preparedness for 100-level science courses. Two lecture.

### SCI 175 (3)

#### Scientific Methods & Reasoning

Uses concrete models and experiments to develop concepts. Fundamental and derived dimensional analysis. Basic laboratory equipment, data collection and analysis, and oral and written presentation of results. Two lecture; three lab.

### SCI 195 (3)

#### Water Distribution Systems

Operation and maintenance of potable water distribution systems. Includes pipes, valves, water meters, hydrants, pumps, storage facilities, groundwater production, disinfection, record keeping, tapping procedures, safety, maps, locating lines, instrumentation/control equipment, and basic cross connectional control. Preparation for the Arizona Department of Environmental Quality examinations for Grade One and Grade Two Distribution System Operator. Three lecture. May be taken for S/U credit.

### SCI 235 (3)

#### Energy

Types and sources of energy including solar, nuclear, wind, steam, turbine, and thermal, and the issues surrounding each. Field trips. Three lecture.

### SCI 298 (1-6)

#### Special Topics

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Sociology

### SOC 101 (3)

#### Introduction to Sociology

Concepts, theories and research methods, definitions and classifications of individuals and groups, concepts and theories of stratification, social institutions, modernization, and movements. General Education: Social and Behavioral Sciences. Three lecture.

### SOC 125 (3)

#### Domestic Violence

Theory and dynamics in domestic violence. Defining spouse abuse, exploring origins, and the impact on children and family. Three lecture.

### SOC 130 (3)

#### Human Sexuality

Biological, psychological, and cultural factors which influence human sexuality, including ethics, gender roles, and changing values in contemporary society. Three lecture.



**SOC 132 (3)****Social Problems**

The causes, effects, and solutions of contemporary social problems. Prerequisite: SOC 101 or consent of instructor. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness. Three lecture.

**SOC 140 (3)****Marriage & the Family**

Helps prepare students to improve the quality of individual and family life. Includes parent-child relationships, parenting roles, marital violence, and aspects of divorce. Three lecture.

**SOC 142 (3)****Race & Ethnic Relations**

Sociological perspectives and theories on race and ethnic relations. Various race and ethnic minority groups, present and future perspectives on prejudice, and improving ethnic relations. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness. Three lecture.

**SOC 200 (3)****Women & Health**

Designed to empower women by enabling them to make accurate decisions regarding their health. Aspects of health and health-related topics germane to political, cultural, and socio-economical issues as they relate to women. Three lecture.

**SOC 210 (3)**

Overview of theories of gender development; examination of social, cultural, political and economic conditions affecting the experience of gender; and exploration of issues involved in the different roles and expectations placed on women and men in various cultures at different periods in history, with particular emphasis on contemporary American culture. General Education: Social and Behavioral Sciences. Special Requirements: Ethnic/Race/Gender Awareness; Intensive Writing and Critical Inquiry. Pre- or co-requisite: ENG 102. Three lecture.

**SOC 220 (3)****Introduction to Social Work**

An introduction to the fields within the area of social work through a study of the disciplines of social case work, social group work, and community organization and opportunities to experience the various techniques of practice within each discipline. Prerequisite: ENG 101. Three lecture.

**SOC 236 (3)****Crime & Delinquency**

Deviance in American society, emphasizing the extent of crime, crime trends, types of crime and criminals, theories and factors in crime causation, the impact of crime on society and the individual, and the relationship between social variables and crime. Three lecture.

**SOC 285 (3)****Health Care Systems**

Predominant health care systems in the U.S. including Medicare and Medicaid. Examines the availability and utilization of various resources, as well as ethics and quality of care. Three lecture.

**SOC 296 (3)****Internship**

Opportunity to gain experience in applying knowledge and skills in an appropriate setting. Three lecture; three lab.

**SOC 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Spanish

**SPA 101 (4)****Beginning Spanish I**

Basic grammar, vocabulary, and culture. Practice in speaking, reading, and writing Spanish. General Education: Options. Four lecture.

**SPA 102 (4)****Beginning Spanish II**

Further emphasis on basic grammar, vocabulary, and culture. Practice in speaking, reading, and writing Spanish. Prerequisite: SPA 101 or placement. General Education: Options. Four lecture.

**SPA 125 (2)****Spanish for Health Professionals**

Develops practical speaking knowledge of common medical terms frequently used in a variety of health care settings. Prerequisites: SPA 101, SPA 131, or consent of instructor. Two lecture. May be taken for S/U credit.



**SPA 126 (2)****Spanish for Law Enforcement Personnel**

Develops a practical speaking and/or writing knowledge of common terminology frequently used in the law enforcement field. Prerequisites: SPA 101, SPA 131, or consent of instructor. Two lecture. May be taken for S/U credit.

**SPA 127 (3)****Spanish for Elementary Teachers**

Develops a practical speaking and/or writing knowledge of common terminology frequently used in the elementary school classroom. Three lecture. May be taken for S/U credit.

**SPA 131 (3)****Conversational Spanish I**

Basic grammar, vocabulary, and culture in conversational practice. Three lecture. May be taken for S/U credit.

**SPA 132 (3)****Conversational Spanish II**

Further emphasis on basic grammar, vocabulary, and culture in conversational practice. Prerequisite: SPA 131 or consent of instructor. Three lecture. May be taken for S/U credit.

**SPA 201 (4)****Intermediate Spanish I**

Improving basic skills of speaking, comprehension, reading, and writing. Taught in Spanish. Prerequisite: SPA 102 or placement. General Education: Options. Four lecture.

**SPA 202 (4)****Intermediate Spanish II**

Further development of speaking and writing communication skills with emphasis on compositions and readings. Taught in Spanish. Prerequisite: SPA 201 or placement. General Education: Options. Four lecture.

**SPA 212 (2)****Introduction to Translation & Interpretation**

Designed specifically for native or fluent speakers of Spanish, to introduce and familiarize them with the techniques of proper written translation and oral interpretation. Serves only as an introduction to the broad field; intended to help students decide if they want to pursue it further. Two lecture.

**SPA 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Speech

**SPC 100 (3)****Fundamentals of Speech Communication**

Fundamental elements of oral communication emphasizing improving speaking skills and self-confidence. General Education: Options. Three lecture. May be taken for S/U credit.

**SPC 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.

## Theatre

**THR 101 (3)****Introduction to Theatre**

A survey of theatre, introducing basic elements and principles of production, styles and/or historical perspectives of theatre, dramatic literature and criticism. General Education: Arts and Humanities. Three lecture. May be taken for S/U credit.

**THR 110 (3)****Acting I**

The fundamental techniques of acting are explored through physical and vocal expression, improvisation and scene work with an emphasis on the performer's approach to characterization. Three lecture. May be taken for S/U credit.

**THR 199 (0.5-6)****Theater Workshop**

Designed to provide workshop courses based on student and faculty interest in pursuing or presenting an original topic. Workshops may be developed to enhance existing curriculum or to give students experience that is not covered by existing curriculum. One-half to six variable credit hours. May be taken for S/U credit.

**THR 210 (3)****Acting II**

The fundamental techniques of acting are further explored through script analysis, rehearsal and in-class performance of scenes with emphasis on various styles. Prerequisite: THR 110 or consent of instructor. Three lecture. May be taken for S/U credit.

**THR 220 (3)****Actors Workshop**

Advanced acting techniques are explored through script analysis, character development and rehearsal with theater professionals culminating in public theatrical performance. Prerequisite: successful audition. One lecture; five lab. May be taken for S/U credit.

**THR 298 (1-6)****Special Topics**

Designed to meet the needs of an individual(s) with interest in pursuing an original topic in an instructional area under faculty supervision. One to six variable credit hours.



C O U R S E   D E S C R I P T I O N S



*" You learn from everybody in the  
academic environment,  
which include administration,  
employees and other students."*

*— Mark Mews,  
Pre-Finance  
Major*

# Admission & Registration



# Admission Information

## Admission Requirements

Coconino Community College is open to any person for either regular or special admission if that person satisfies one of the following categories established by the State Board of Directors for the Community Colleges of Arizona (R7-1-20):

### Eligible for "Regular Student" Admission

- ◆ A graduate of a high school which 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, *or*
  - ◆ A person who has completed a GED certificate of high school equivalency, *or*
  - ◆ A transfer student in good standing from another college or university, *or*
  - ◆ A mature person who is 18 years of age or older and demonstrates evidence of potential to succeed at CCC. (A student admitted in this category who is not a high school graduate or a GED completer will be encouraged to attain a GED prior to completion of 15 hours at CCC.)
- Mature student applicants may be required to complete testing and other assessment activities designed to help the College determine their ability to benefit from college-level instruction. They are restricted to enrollment of 12 credit hours or fewer each semester with advisor approval required.

### Eligible for "Special Student" Admission

- ◆ A student not meeting any of the provisions for "Regular Student" Admission (listed above) may be admitted on an individual basis with the approval of College officials and, as appropriate, the consent of parents and recommendation of the student's school. This includes, but is not limited to, students under 18 and those still enrolled in high school. For students still enrolled in high school, completion of the 10th grade is a requirement for admission as a special student.
- ◆ A special student must meet the established requirements of the course(s) for which he/she chooses to enroll, and college officials must determine that admission is in the best interest of the student. For example, a special student seeking admission to attend an algebra class

must be qualified to enter a mathematics course at that level; qualification in this case would be determined by a placement examination, or ACT/SAT scores and high school grades.

- ◆ A student who is under age 18 and scores a composite of 22 or higher on the American College Test (ACT), or a composite (verbal and mathematics) of 930 or more on the Scholastic Aptitude Test (SAT) may be admitted. A student who shows evidence of such test scores shall not be denied admission because of age, lack of a high school diploma or high school certificate or equivalency (GED), grade in school, lack of permission of school officials, or lack of concurrent enrollment in public or private school; however the College requires parental permission for those under 18. A student admitted in this category is *not* guaranteed admission to a specific degree program or to all courses offered by the college and may enroll for a maximum of 6-8 credit hours unless special arrangements have been made and approved prior to the registration period.
- ◆ All special student applicants should contact Admissions and Records for more information and required forms.
- ◆ Applicants with status "SP" are limited to 6-8 credit hours or two classes; advisor approval is required.

## Admission Procedures

*Each student must provide the following:*

- ◆ A completed Application for Admission and a Domicile Affidavit.
- ◆ Documents required by his/her admission status before the end of his/her first semester of enrollment, except as indicated.

## Student Identification Options

*According to Arizona Revised Statute 15-1823:*

- ◆ Arizona Revised Statutes allows community colleges to use a student's social security number as their student identification number, but must allow the student to request a system-generated identification number. Beginning Spring 2001, Coconino Community College has elected to provide all students with a system-generated identification number. The student must still provide their social security number for tax reporting and financial aid and will be used only for such purposes as allowed under the FERPA regulations.

## International Students

At present, Coconino Community College is *not* approved as a study site for students who are not United States citizens except persons lawfully



admitted to the United States as immigrants. CCC is not authorized to issue 1-20 documents nor will full-time attendance at CCC by a non-citizen satisfy F-1 student status. International students with a visa status other than F-1, as well as those F-1 visa students attending and in status at Northern Arizona University, may be eligible for limited study at CCC. A minimum TOEFL score of 450 is required. Contact Admissions and Records for further information.

### **Mailing Address for Official Transcripts**

Official high school and college/university transcripts, as required, must be mailed directly to:

Admissions and Records  
Coconino Community College  
3000 North Fourth Street, PO Box 80,000  
Flagstaff, AZ 86003-8000

Transcripts which are hand-carried to the College by the student are not considered official.

### **Residency Requirements**

Coconino Community College determines a student's residency status for tuition purposes based upon information supplied on college applications, affidavits, and additional information provided by the student. CCC notifies a student of his/her residency status upon admission. Appeals or questions regarding residency status should be directed to Admissions and Records or the College Registrar.

### **Residency Procedures**

The following guidelines concerning the determination of residency for tuition purposes are the result of existing Arizona law and regulations of the State Board of Directors for Community Colleges of Arizona, which are subject to Arizona Statutes. Students having difficulty in determining their residency should contact Admissions and Records for further explanation.

- ◆ Each applicant shall have the question of legal residence determined at the time of admission. Registration and payment of fees will be in accordance with the residency assigned at the time of official admission. The admission letter mailed to the student's last known address shall be considered official notice of the student's residency for tuition purposes.
- ◆ The Registrar/Director for Admissions is responsible for making the initial domicile classification. The College may consider all evidence, written or oral, presented by the

student and any other relevant information received from any source. The College may request written or sworn statements or sworn testimony of the student.

- ◆ An appeal of the initial classification may be made to the Registrar/Director for Admissions. The appeal must be in writing, signed by the student, and accompanied by a sworn statement of all relevant facts. The appeal must be filed with Admissions and Records within ten days of notification of residency classification. Failure to properly file a request for review within the prescribed time limit constitutes a waiver of review for the current enrollment period.

### **Definition of Terms**

#### ***Armed Forces of the United States***

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.

#### ***Continuous Attendance***

Enrollment at an Arizona educational institution for a normal academic year since the beginning of the period for which continuous attendance is claimed.

Enrollment in summer sessions or other such intersessions beyond the normal academic year is not required in order to maintain continuous attendance.

#### ***Domicile***

A person's true, fixed and permanent home and place of habitation. It is the place where one intends to remain and to which one expects to return when one leaves without intending to establish a new domicile elsewhere.

#### ***Emancipated Person***

A person who is neither under a legal duty of service to parents, nor entitled to the support of such parents under laws of the state.

#### ***Parent***

Father or mother, custodial parent, or legal guardian of an unemancipated person. Circumstances must not indicate that guardianship was created primarily for the purpose of conferring the status of an instate student on the unemancipated person.

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

- ◆ Except as otherwise provided in this article, no person having a domicile elsewhere than in this state is eligible for classification as an instate student for tuition purposes.
- ◆ A person is not entitled to classification as an instate student until domiciled in this state

for one year (previous twelve months) unless he/she meets one of the following requirements:

- ◆ His/her parent's domicile is in this state and that parent is entitled to claim him/her as an exemption for state and federal tax purposes.
- ◆ He/she is an employee or spouse of an employee transferred to this state for employment purposes.
- ◆ The domicile of an unemancipated person is that of his/her parent.
- ◆ An unemancipated person, while in continuous attendance toward the degree for which currently enrolled, does not lose instate classification if his/her parent moves from this state.
- ◆ A person who is a member of the armed forces of the United States stationed in the state pursuant to military orders or his/her spouse or dependent child (as defined in Section 43-1001) is entitled to classification as an instate student. The student, while in continuous attendance toward the degree for which currently enrolled, does not lose instate student classification.
- ◆ A person who is a member of an Indian tribe recognized by the United States Department of the Interior whose reservation land lies in the state and extends into another state and who is a resident of the reservation is entitled to classification as an instate student.

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

An alien resident is entitled to classification as an instate refugee student if such person has been granted refugee status in accordance with all applicable laws of the United States and has met all other requirements for domicile.

#### **Presumptions Relating To Student Status**

Unless the contrary appears to the satisfaction of the registering authority of the community college at which a student is registering, it shall be presumed that:

- ◆ No emancipated person has established a domicile in the state while attending any educational institution in this state as a full time student, as such status is defined by the State Board of Directors for Community Colleges.
- ◆ Once established, a domicile is not lost by mere absence unaccompanied by intention to establish a new domicile.
- ◆ A person who has been domiciled in this state immediately prior to becoming a member of the Armed Forces of the United States shall not lose instate status by reason

of his/her presence in any other state or country while a member of the Armed Forces of the United States.

#### **Western Undergraduate Exchange (WUE) Program**

WUE is the Western Undergraduate Exchange, a program coordinated by the Western Interstate Commission for Higher Education (WICHE). Through WUE, students in western states may enroll in many two-year and four-year college programs at a reduced tuition level: 150 percent of the institution's regular in-state resident tuition. In all cases, WUE tuition is considerably less than nonresident tuition. If the student is a legal resident of Alaska, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, or Wyoming then they are qualified for this program. Mark the appropriate residence code on the application for admission form to be declared a WUE student. Contact the Admissions and Records office for further information.

#### **Registration Information**

Students should register for classes in accordance with calendars and procedures published in the appropriate Schedule of Classes. To participate in registration, new students must have completed an application for admission. Students in the following categories are admitted conditionally pending receipt of documents verifying or clarifying their status (see also Admission Information): high school graduates, GED completers, transfer students, mature students (without high school diploma or GED), students on academic probation at a previous college, students on academic suspension at a previous college, and "special" students, especially those taking classes while still enrolled in high school. Students in the foregoing categories who do not provide required documents may be barred from participation in future registrations.

#### **Academic Load**

##### *Semester*

The normal full-time academic load is defined as 12 credit hours per semester. A student may take no more than 18 credit hours in a single Fall or Spring semester without prior approval. A student with a grade point average of 3.00 or better for 12 or more credit hours during one semester or summer session is eligible to petition the Registrar/Director for Admissions to carry in excess of the 18 hour maximum. Exceptions to this procedure may be considered on a case-by-case basis.

### Summer

Summer classes are intensive; therefore, the recommended maximum academic load for the entire summer is 12 credit hours<sup>1</sup>. A student with a grade point average of 3.00 or better for 12 or more credit hours during one semester or summer session is eligible to petition to the Registrar/Director for Admissions to carry credit hours in excess of the 12 credit hour maximum. Exceptions to this procedure are considered on a case-by-case basis.

### Add/Drop Procedures

#### Fall/Spring Semester

In accordance with calendars and procedures in the appropriate *Schedule of Classes*, students may make adjustments in their registered schedules by dropping and/or adding classes. Students may drop without a "W" (withdrawal) being recorded on their transcript prior to, and including, the 45th calendar day. On the 46th calendar day, and thereafter, a student drop will be recorded on the transcript as a "W" (withdrawal). A student may initiate a withdrawal prior only to the last two weeks of instruction of the semester. Written petitions for exception to this procedure may be presented to the Registrar/Director for Admissions for action. The instructor may drop or withdraw students for nonattendance at the first class session or for unexcused absences. *See Academic Procedures: Attendance, for more information.*

#### Summer Session

In accordance with calendars and procedures in the appropriate *Schedule of Classes*, students may make adjustments in their registered schedules by dropping and/or adding classes. Students may drop without a "W" (withdrawal) being recorded on their transcript no later than the 7th calendar day after the beginning of the session. On the 8th calendar day and thereafter, a student drop will be recorded on the transcript as "W" (withdrawal). A student may initiate a withdrawal prior only to the last two weeks of instruction of the summer session. Written petitions for exception to this procedure may be presented to the Registrar/Director for Admissions or designee for action. The instructor may drop or withdraw students for nonattendance at the first class session or for unexcused absences. *See Academic Procedures: Attendance, for more information.*

#### Short Courses

Registration for short courses (those meeting less than a full semester in Fall or Spring, less

than a full summer session, or pre- and post-sessions) will be accepted prior to the first class meeting. Short courses may be added, with the approval of the instructor, prior to the second class meeting. If a short course is dropped once the class has begun, a "W" (withdrawal) will be recorded on the student transcript. A student may initiate a withdrawal prior only to the last one-third of the class meeting dates. Written petitions for exception to this procedure may be presented to the Registrar/Director for Admissions or designee for action. The instructor may withdraw students for nonattendance at the first class session or for unexcused absences. *See Academic Procedures: Attendance, for more information.*

### Placement

#### Belief and Purpose

Coconino Community College believes academic achievement is directly related to the course placement students receive prior to their enrollment. We have a commitment to provide opportunities for successful academic experience for students.

The purpose of the course placement policy is to enhance student success by requiring placement in English, mathematics, and reading. Placement is designed to help students determine their current skills and knowledge levels, and to direct them to the appropriate classes.

#### Requirements

Students will be required to complete placement assessments under the following conditions:

- ◆ The student is taking his/her first college credit English or mathematics, with the exception of MAT 055 and ENG 060.
- ◆ English and mathematics placement testing and the reading assessment should be completed prior to the first semester of enrollment. The English, mathematics, and reading requirements should be pursued in each subsequent semester until those requirements are fulfilled. *See Graduation Procedures for more information.*
- ◆ The student is degree-seeking and does not have previous college credit in English, reading, or mathematics. (Degree-seeking students will not be allowed to enroll in classes after completion of 18 hours if they have not taken appropriate placement tests and completed the reading assessment.)
- ◆ Transfer students who completed prerequisite courses more than five years prior to the semester in which prerequisite proof is required.



### Exemptions

Students may be exempt from the placement test if at least one of the following conditions applies:

- ◆ The student has an associate's or higher degree
- ◆ The student has earned transferable college credits in English, mathematics and/or reading, with a grade of "C" or better within the five years previous to date of enrollment
- ◆ The student has a record of previous placement assessment at CCC
- ◆ The student has SAT or ACT scores

### Course Placement

A student's score on a CCC's placement test, the SAT, or ACT, determines his/her placement in a specific course. This placement should be discussed with an advisor who is skilled in assessing the student's need in the context of factors that affect student success.

#### CCC course placement in mathematics and English based on ACT or SAT scores:

Subject	ACT Scores	SAT Scores	Appropriate Course
Mathematics	≤14	≤320	MAT 055
	15-16	330-400	MAT 087
	17-20	410-520	MAT 121
	21-24	530-600	MAT 130, MAT 142, MAT 151, MAT 187
	25-26	610-640	MAT 172, MAT 184, MAT 212
	≥ 27	≥ 650	MAT 220
English	20+	420+	ENG 101 & exempt from reading

### Appeal

The final decision for student success rests with the student. Therefore, if the student wishes to appeal the placement decision, the student must see an advisor and must complete a *Waiver of Enrollment Against Advise* form.

The Waiver is subject to approval. If approved, the Waiver will be kept in the student's official academic record in Admissions and Records.

### Implementation of Policy

To ensure consistency of student placement within the Coconino Community College District in the implementation of this policy, the following will apply:

- ◆ All sites shall use the same assessment instruments or their equivalents
- ◆ All sites shall adhere to the same cut-off scores
- ◆ Placement scores will be valid for two years from the date of the original assessment

- ◆ The student will be permitted no more than one re-test per discipline each semester
- ◆ Copies of placement test results will be kept on file in the Registrar's Office

### Proficiency Tests

The Proficiency Tests are designed to help students determine their preparedness for taking specific courses. Check the *Schedule of Classes* or the Testing Services Web site at [www.coco.cc.az.us/~lec/testing/default.htm](http://www.coco.cc.az.us/~lec/testing/default.htm) for test dates and times.

#### 1. Business English

All students who wish to enroll in the BUS 204 (*Business Communications*) course must have completed ENG 101 (*College Composition I*) and either BUS 111 (*Business English*) or satisfy appropriate placement on the Business English Proficiency Test. This proficiency test is an option for students who do not wish to take BUS 111.

#### 2. EMS

The Department of Health Services requires the following prior to registration for EMS 131:

- ◆ Be 18 years of age or older (picture ID required)
- ◆ Current "Health Care Provider" CPR Certification
- ◆ Passing score on the CCC administered reading placement test for EMS
- ◆ Evidence of MMR vaccination
- ◆ Current Hepatitis-B vaccination (Page Campus only)
- ◆ TB test within six months of the start of class
- ◆ Proof of current health insurance

#### 3. Spanish

All students who wish to enroll in a second semester Spanish course or above and cannot provide proof of having satisfied the prerequisite within the last five years must take the Spanish Proficiency Test.

### Catalog Choice

A student may choose to be governed by the degree/certificate requirements outlined in any one CCC catalog in effect during his/her enrollment for credit at the College, with the following exceptions:

- ◆ Students who totally withdraw from the College (with all "W's" posted on the CCC transcript) for more than two consecutive semesters (excluding summer) forfeit the opportunity to choose a catalog prior to the one in effect for the semester of their re-enrollment.
- ◆ No student may choose to be governed by the requirements of a catalog issued more

than five years prior to the year in which catalog choice is made.

A student must choose only one catalog and will not be allowed to choose a combination of requirements from differing catalogs. A student may petition for waiver or substitution of certain catalog requirements. The academic advisor and/or other College officials may initiate course substitutions for program requirements. These substitutions must be approved by the Division Chair for the Flagstaff Campus or Campus Dean for the Page Campus, for the specific degree and/or certificate.

**Note:** Students planning to transfer to an Arizona public university who are completing a transfer degree from a catalog prior to the 1999-2000 catalog may choose to replace the TGECC (Transfer General Education Core Curriculum) with an AGECC (Arizona General Education Curriculum). Since the TGECC is 41 credits and the AGECC is 35 credits, students replacing the TGECC with the AGECC may be required to complete additional degree core requirements and/or transferable elective credits to complete the degree.

### **Student Classification and Standing Freshman**

A student who has earned fewer than 30 credit hours.

### **Sophomore**

A student who has earned 30 or more credit hours, but has not earned a degree.

### **Full-time Student**

#### **Enrolled for**

12 or more credit hours

6 or more credit hours

4 or more credit hours

#### **During a session of**

10 or more weeks

5 weeks to less than 10 weeks

less than 5 weeks

### **Part-time Student**

#### **Enrolled for**

1-11 credit hours

5 or fewer credit hours

3 or fewer credit hours

#### **During a session of**

10 or more weeks

5 weeks to less than 10 weeks

less than 5 weeks

### **Advisement**

Coconino Community College recognizes the importance of providing regular opportunities for students to obtain advisement throughout their academic careers. There are two types of advising:

#### **♦ Registration Advising**

This walk-in advising takes place during registration. This short-term advising is intended to help students select courses for the current semester only;

#### **♦ Program Advising**

The goal of program advising is to assist students in developing and following an educational plan (degree, certificate, and/or transfer programs).

Students planning to pursue a degree or certificate program and/or transfer to a 4-year college or university should seek advisement prior to enrollment. Advisement is required for students receiving financial aid, for those admitted under probation or suspension status, and for special admissions. Program Advising is available throughout the academic year by appointment through Student Development Services. Students needing assistance with program planning are urged to seek Program Advising early in the semester. During times listed in the CCC *Schedule of Classes*, only Registration Advising is available.

## Transferring Credit to CCC

### **Basic Guidelines**

Course work completed at accredited institutions with a grade of "C," its equivalent, or better will be evaluated for transfer credit, with the following exceptions: above 200-level courses and course work not equivalent to a CCC course will not be transferred.

Admissions and Records must receive an official transcript directly from the college or university where credit was earned. Upon a student's written request (in the form of a Transcript Evaluation Request), Admissions and Records staff will evaluate official transcripts for credit by the College. Using the following system of prioritization, up to 45 credit hours will be accepted for transfer, which may include up to 30 hours of credit for prior learning:

- ♦ General education classes equivalent to CCC general education courses.
- ♦ Other course work evaluated as equivalent to a CCC course and included in a degree or certificate program, up to the 45 credit limit.
- ♦ Courses will only be counted once. Additional occurrences (repeats) of courses will be coded "NT" (Not Transferred).
- ♦ Once the limit has been met, courses will be coded "NT" (Not Transferred), regardless of equivalency to a CCC course.

An academic advisor will review credit for applicability toward the student's program objective at CCC. Transfer grades are not calculated in the student's CCC grade point average.

### Transfer Procedure

Students who desire to transfer previous college or university credits to Coconino Community College must formally request a transcript evaluation. Forms are available through Admissions and Records. Following are helpful guidelines for students considering transfer of credit to CCC:

- ◆ Transcripts will be officially evaluated only when official copies of all transcripts have been received by CCC. An official copy is one which has been mailed directly from the student's previous school to CCC. Students must request transcripts by contacting their previous colleges and universities.
- ◆ Transcripts from all previous colleges or universities attended, regardless of how long ago courses were taken and regardless of the grades earned, must be submitted to the College. Credits earned more than five years ago may be subject to special evaluation. The official transcript evaluation requires that students certify they are declaring all previous credits.
- ◆ The transcript evaluation procedure includes a review process during which the student can request clarification. If a student is refused transfer credit for a class, or if credit is not granted in an area the student feels is appropriate, the student may request a review with a transcript evaluator to discuss his/her concerns. It is the student's responsibility to provide the transcript evaluator with previous school catalogs or other information which will assist in clarifying the classes in question.

### Transfer of General Education Courses and Arizona General Education Curriculum (AGEC) Courses from Other Arizona Community Colleges or Universities to CCC

If a course is in the General Education Core Curriculum (GECC) of the transferring institution, CCC will accept the credits as a CCC GECC course using the following procedures:

1. The course will be transferred as an equivalent course if the equivalency is determined by:
  - a. a review of transfer course description in comparison to CCC course description, or
  - b. a comparison of Course Equivalency

Guide (CEG) equivalencies between the transferring institution and the universities with CEG equivalencies between CCC and the universities. For example, per the CEG, the transferring institution's MAT 130, College Algebra, has the following university equivalencies: at NAU, MAT 110; at ASU, MAT 117; at U of A, MATH 117. CCC's MAT 151, College Algebra, has the same university equivalencies; therefore, the transferring institution's MAT 130 is equivalent to CCC's MAT 151.

The Transcript Evaluator will record these equivalencies on the Course Articulation form.

2. If CCC does not have an equivalent course, the course will be transferred as a specified number of credits satisfying requirements of the appropriate General Education area (Arts/Humanities, Social/Behavioral Sciences, Physical/Biological Sciences, or Options) and/or Arizona General Education Curriculum (AGEC) Special Requirements area(s) (Intensive Writing/Critical Inquiry, Ethnic/Race/Gender Awareness, and/or Contemporary/Global or International Awareness). The student requesting the transfer evaluation must provide documentation that the course is part of the GECC at the transferring institution. A *Request for Substitution* form must be initiated by the student, completed by an advisor, and approved by the appropriate *Division Chair* for the Flagstaff Campus or *Campus Dean* for the Page Campus.
3. If the course fulfills one or more of the AGEC Special Requirements at the transferring institution, CCC will transfer it to fulfill those requirements. The student requesting the transfer evaluation must provide documentation that the course meets the AGEC requirements at the transferring institution. A *Request for Substitution* form must be initiated by the student, completed by an advisor, and approved by the appropriate *Division Chair* for the Flagstaff Campus or *Campus Dean* for the Page Campus. EXCEPTION: The Intensive Writing/Critical Inquiry Special Requirement must be completed at Coconino Community College.
4. University credits may be transfereed back to CCC to satisfy AGEC requirements and/or CCC degree requirements. To obtain an AGEC stamp on the transcript, however, students need to comply with the 15 credit hours in residence requirement below.



Per the Arizona state AGEC policy, "A minimum of 15 semester credits of course work must be completed within the community college district certifying completion of the AGEC." The 15 hours of course work referred to in the policy can be in any area and do not have to be GECC or AGEC courses.

### Earning Tech Prep Credit

The purpose of the Tech Prep program is to provide a pathway through which students at the high school level will be granted community college credit for specific articulated courses leading toward a degree or certificate from Coconino Community College. Eligibility of students in a Tech Prep program is determined by participating high schools.

#### To be eligible for credit:

Students must complete a Tech Prep program in high school and enroll at CCC within two years of high school graduation to receive articulated community college credit. If the time limit has expired, eligibility for credit will be evaluated on a case-by-case basis by the Registrar/Director for Admissions.

#### To receive college credit:

Tech Prep students must provide official high school transcripts to Admissions and Records and request that the transcripts be evaluated. Transcripts must document participation and completion of articulated Tech Prep courses at the secondary level. Each articulated course must be completed with at least a "B" letter grade. The student may apply for award of credit after successfully completing 6 credit hours at CCC within one academic year of enrollment to the College. Independent study, cooperative education, internship or practicum courses at CCC do not count as part of the 6 credit minimum requirement.

A student may apply a maximum of 12 hours of Tech Prep credit earned in high school toward any applicable CCC degree or certificate. Tech Prep credit awarded by CCC may not transfer to other colleges or universities.

### Credit for Prior Learning

Students enrolled at CCC may be awarded a total of 30 credit hours for prior learning completed through the College Level Examination Program (CLEP), Defense Activity for Non-Traditional Support Examination Program (DANTES), Advanced Placement Examinations (AP), and/or

military training. Credit awarded for prior learning does not count as hours in residence for graduation requirements. Credit granted by CCC may not transfer to other colleges or universities. Official test scores for CLEP, DANTES, and AP must be sent directly by the testing agency to Admissions and Records. A written request for an evaluation of test scores must be filed by the student with Admissions and Records. Students seeking an evaluation for military training should consult the Registrar/Director for Admissions or designee regarding proper documentation.

CLEP offers general examinations in Social Science/History, Natural Sciences, Humanities, English, Mathematics, and additional examinations in specific subject areas. CCC may grant credit for general examinations with a minimum score of 500 and credit in applicable subject areas with a minimum score of 50. CCC may grant credit for DANTES examinations with a minimum score of 50.

The Advanced Placement Program recognizes that some students are able to complete college-level courses while attending high school. Students who have taken an Advanced Placement course in their secondary school and who scored 4 or 5 on the AP may receive college credit. Official scores must be sent directly from the testing agency to CCC for evaluation. A written request for an evaluation of test scores must be filed by the student with Admissions and Records.

### Reserve Officers Training Corps (ROTC)

Through an arrangement with Northern Arizona University (NAU), CCC students in Flagstaff can take freshmen and sophomore year classes in ROTC. The goal of the ROTC classes is to provide a foundation of military knowledge and skills needed by junior officers in the military. These classes provide Army ROTC Basic Course credit to students who intend to enroll in, or continue their participation in Army ROTC classes at Northern Arizona University or other universities hosting Army ROTC programs. Students can register for these classes at CCC and take the courses at NAU. For further information, contact Air Force ROTC at 520-523-2060 or CCC's Student Development Services.

## Ordering Official

### Transcripts

Admissions and Records

at the Flagstaff and Page

Campuses issue official

Coconino Community

College transcripts.

A student must file a

written request for each

transcript with a \$5.00 fee

and allow one week for

processing. Transcripts

reflect CCC classes only.

Students desiring

transcripts for courses

completed at colleges

other than CCC must

contact Admissions and

Records at that college.





## Transferring Credit from CCC

The Coconino County Community College District is one of ten state community college districts approved by the State Board of Directors for Community Colleges of Arizona. The academic policies and the operation of CCC are governed by the local CCC District Governing Board and by the State Board. CCC adheres to the Arizona General Education Curriculum approved by the Arizona Board of Regents (governing board for state universities) and by the State board of Directors for Community Colleges of Arizona. CCC is accredited by the North Central Association of Colleges and Schools, the regional accrediting body. CCC classes follow curriculum approved by the State Board, and courses numbered 100-299 may be eligible for transfer to other colleges and universities. The procedure for determining the transferability of a particular CCC course is as follows:

- ◆ For CCC courses taught Fall semester 1991 or Spring semester 1992, one of Arizona's accredited community colleges (Yavapai College) permitted CCC to use its course prefix and number system and its course outlines to facilitate the transfer process during CCC's initial two semesters of operation. Students or institutions wishing to determine the transferability of a particular CCC course taught either Fall semester 1991 or Spring semester 1992 should consult the Yavapai College section of the 1991-92 *Course Equivalency Guide* published by the Arizona Commission for Postsecondary Education.
- ◆ For CCC courses taught summer session 1992 forward, students or institutions should consult the CCC section of the appropriate *Course Equivalency Guide* published by the Arizona Commission for Postsecondary Education.

## Transferring to Arizona Public Universities

Arizona public community colleges and universities (Northern Arizona University, University of Arizona, Arizona State University) have agreed upon a common structure for a transfer general education curriculum. This curriculum provides students attending any Arizona state community college with the opportunity to build a general education curriculum that is transferable upon completion without loss of credit to another Arizona state community college or university. This common agreement is called the Arizona General Education Curriculum (AGEC).

Completion of the AGEC will fulfill lower division general education requirements at all Arizona state community colleges and universities and will be fully applicable to the baccalaureate degree, but may not apply to degrees articulated with the Transfer Guide Pathway (TG-XR). Students completing the AGEC will still be required to fulfill lower division major requirements and prerequisites within their college and major/minor area of study. Some majors have significant prerequisites and/or program requirements that must be completed before a student may be admitted to upper division course work. Community college students who are undecided about which of the Arizona public universities they plan to attend or what program of study they intend to pursue are advised to explore educational options while they complete the AGEC.

If a student does not complete all 35 credits of the AGEC, lower division general education is not fulfilled at all Arizona public universities. When the AGEC is not completed, the general education credits will be evaluated by the university on a course-by-course basis using the *Course Equivalency Guide* and applied depending on the degree and college. For more information regarding the AGEC, see *Quick Reference for Programs and General Education Requirements* in this catalog.

Students intending to transfer to an Arizona public university are strongly encouraged to meet regularly with an advisor to understand student's rights and responsibilities related to the transfer and applicability toward a degree of program core curriculum, courses and credits.

### University Transfer Guides

University Transfer Guides show how CCC courses apply to specific Arizona public university degree requirements. The transfer guides are useful both for students pursuing a CCC transfer associate degree which articulates with specific Arizona public university degrees, as well as for students pursuing Arizona public university degrees which do not articulate with a CCC transfer associate degree. Transfer guides are accessible on the following Web sites:

**Arizona State University Main/East**  
[www.asu.edu/provost/articulation/](http://www.asu.edu/provost/articulation/)

**Arizona State University West**  
[www.west.asu.edu/tranguid/](http://www.west.asu.edu/tranguid/)

**Northern Arizona University**  
[www.nau.edu/regis/transguide/info.htm](http://www.nau.edu/regis/transguide/info.htm)

**The University of Arizona**  
[transferguides.arizona.edu/](http://transferguides.arizona.edu/)

### AZCAS Transfer Planning Aids

AZCAS Transfer Planning Aids are built from an institution's academic programs. Community college or university course work that is self-entered into AZCAS is used to evaluate a student's progress toward a community college transfer certificate, community college transfer degree, and/or an Arizona public university degree. The transfer planning aids are accessible on the following site: <http://www.public.asu.edu/AZCAS>

### Transfer Ombudsperson (TSO)

Each Arizona state university and community college has appointed a TSO to resolve problems by transfer students as reported by students, advisors, faculty members and college officials. The TSO has the responsibility to ensure compliance with the transfer and articulation agreements and resolve problems concerning the transfer and applicability of community college credit to university programs. Students may file complaints with the university TSO or report complaints to the TSO at the community college where the transfer course work was completed.

### CCC Transfer Ombudsperson (TSO)

Students wishing to report a problem in transferring CCC credit to a university should provide a written request to the CCC TSO including:

- ♦ the name of the university
- ♦ the declared major at university
- ♦ a comprehensive statement regarding the problem or complaint related to transfer of credit or core curriculum
- ♦ a summary of the action taken by the student prior to submitting the complaint
- ♦ copies of any documentation provided to the student from university officials



## A D M I S S I O N   &   R E G I S T R A T I O N



*" CCC provides a relaxed and  
friendly environment,  
better than the other  
junior college I attended."*

*—Jacqueline Heredia,  
Elementary Education  
Major*

# Financial Information



### Class Fees

Certain classes charge fees in addition to tuition. Refer to the *Schedule of Classes* published each semester and summer session for class fee information.

### Estimated Educational Expenses

Coconino Community College's charges for educational fees are approved annually by the CCC District Governing Board and the State Board of Directors for Community Colleges of Arizona and are subject to modification by these Boards. The following is intended to provide prospective students with information regarding approximate expenses. It is not to be interpreted as limiting the College's need to adjust charges in response to rising costs.

- ◆ An Arizona resident who registers as a full-time student should expect to pay approximately \$780 per semester for educational fees and books.
- ◆ A part-time student who registers for 6 credit hours should expect to pay approximately \$390 per semester for educational fees and books.
- ◆ A part-time student who registers for 1 to 3 credit hours should expect to pay approximately \$285 per semester for educational fees and books.
- ◆ The student should consult the most recent *Schedule of Classes* for current and complete information concerning expenses.

### Tax Credit for Tuition and Fees (the Hope Scholarship)

The Taxpayer Relief Act of 1997, signed by President Clinton on August 5, 1997 includes provisions that will benefit Coconino Community College students and/or parents. Attending CCC for two years can provide you with a \$1,500 per year tax credit under the Hope Scholarship. This is a dollar-for-dollar tax credit for the first two years of college against actual federal income taxes owed.

Taxpayers may claim 100% of up to the first \$1,000 spent in "out-of-pocket" tuition and fees (not books), and 50% of up to the second \$1,000 in tuition and fees, for a total of up to \$1,500.

#### Example

Student Pays	\$2,500	\$2,000	\$1,500	\$1,000	\$750
Tax Credit	\$1,500	\$1,500	\$1,250	\$1,000	\$750

This is a per student credit. Families with two children in college would be eligible to claim up to two \$1,500 credits. Or, if a husband and

wife are both attending a community college, each can claim up to a \$1,500 credit.

Students must be enrolled at least half-time for a portion of the taxable year. The credit phases out for single tax payers with adjusted gross income between \$40,000 and \$50,000, and for joint filers with adjusted gross incomes between \$80,000 and \$100,000. Married couples must file jointly to qualify for credit.

This credit is available for expenses paid after December 31, 1997.

For more information, contact the Financial Aid Services.

### Non-Fayment

A student who fails to meet financial obligations to CCC may be dropped from classes and will be barred from future enrollment until debts are settled.

### Out-Of-County Fees

No student is required to pay additional out-of-county fees or tuition; however, residents of Arizona counties which do not have established community college districts are required to complete an Out-of-County Affidavit. The counties are Apache, Gila, Greenlee, and Santa Cruz. Affidavits are available from Admissions and Records.

### Returned Checks

Any check returned by the bank will result in the assessment of a \$25 processing fee to the student's account. A student who pays for registration or any other college obligation with a returned check may be subject to legal action and/or the cancellation of registration. The College reserves the right to refuse credit cards or checks for any transaction. Paying for the use of other college services by personal checks may be disallowed for any individual who has a check returned by the bank. If any payment tendered is unauthorized, incomplete, or received after the due date, registration fees will be considered as unpaid and the student will be dropped from all classes.

### Tuition and Fayment

Tuition costs are summarized in the appropriate *Schedule of Classes*. Tuition does not include additional charges for class fees, books or supplies. To complete advance registration, tuition must be paid (or financial aid arrangements completed) by



the payment deadline for advance registrants. To register for classes at any other registration period, payment or financial aid arrangements must be made at the time of registration.

### Withholding Student Records

Coconino Community College may deny enrollment, official transcripts, degrees, and/or certificates to students with outstanding obligations of the College relating to fees, college equipment or materials, or any other obligation. Failure to respond to notifications regarding outstanding obligations may result in the withholding of student records and involuntary withdrawal from the College.

### Refund Policy

A refund of tuition is made only to students who follow official withdrawal procedures. A withdrawal is not official until cleared through Financial Aid Services and processed by Admissions and Records. Note that the refund information below differs for full semester classes and shorter classes.

#### Semester

Tuition paid will be refunded to students officially withdrawn from full semester classes prior to the 11th business day of the semester based on the following schedule:

- ◆ 100% of tuition and fees, minus registration fees, through the 10th business day of the semester.
- ◆ 50% of tuition and fees, minus registration fees, from the 11th through the 15th business day of the semester.
- ◆ No refund on or after the 16th business day of the semester.

*Note - Business days are defined as Monday through Friday, excepting official holidays. See the semester calendar in the Schedule of Classes for actual published dates. The date used to calculate the refund is the date of official withdrawal.*

#### Summer Session

Tuition will be refunded to students officially withdrawn from summer session classes based on the following schedule:

- ◆ 100% of tuition paid and fees, minus registration fees, through the fifth business day of the session.
- ◆ No refund on or after the sixth business day of the second week of the session.

### Short Courses

Tuition will be refunded to students officially withdrawn from short courses (those meeting less than a full semester) based on the following schedule:

- ◆ 100% of tuition paid and class fees, minus the registration fees, up to and including the first class session. To be eligible for a 100% refund, the withdrawal must be initiated no later than the first business day following the first class session.
- ◆ No refund on or after the second business day following the first class session.

This restricted refund schedule for short courses is necessary due to the limited period of class time.

### Processing of Refunds

*Note - Refund processing will not begin until after the add/drop period.*

All refunds that may be due a student will first be applied to debts owed the College.

Refunds will be mailed to the student's last known address unless prior arrangements have been made with the Business Office. It is the student's responsibility to notify the College of any change in address by completing a *Change of Address* form and submitting it to Admissions and Records.

### Exceptions to Refund Policy

In the event the following circumstances arise, the student enrolled in the course may request a refund by submitting a completed Refund Request Form to the cashier. The following exceptions may be petitioned:

#### ◆ Refunds for Serious Illness

A pro rata refund will be made to a student suffering from a serious illness that necessitates a withdrawal from all classes as long as the request is made prior to the end of the semester in which the illness occurs. The student must produce a verifiable doctor's statement certifying that the illness prevents the student from attending all classes.

#### ◆ Refunds for Death of Student or Student's Spouse, Parent, or Child

A refund will be made to the student or the student's estate in the event of death of the student or student's spouse, parent, or child that results in a withdrawal from all of the student's classes. Refund request must be made prior to the end of the semester in which the death occurs. The student or student's family must produce a death

certificate or newspaper Obituary Notice with proof of relationship (i.e., Birth Certificate, Marriage License, etc.). In the event of a student death, the estate must produce a Death Certificate.

◆ **Refunds for Military Service**

A student belonging to the Armed Forces or the Arizona National Guard who is called to active duty and assigned to a duty station will be allowed to withdraw and receive a 100% refund of tuition and fees provided the course has not been completed for which a refund is requested. The student must provide a copy of the military orders within six months of the student's withdrawal.

**Canceled Classes**

In the event a class is canceled by the College, a 100% refund of tuition and fees will be issued. The refund due the student will be processed after the add/drop period and will be mailed to the student's last known address unless prior arrangements have been made with the Business Office.

## Financial Aid

Coconino Community College offers a variety of financial aid to full- and part-time students. The types of financial support available include the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant (FSEOG), Federal Work Study (FWS), and Leveraging Educational Assistance Partnership (LEAP), campus employment, and scholarships. The College uses the Free Application for Federal Student Aid (FAFSA) as its application for all federal financial aid programs. A separate application is required for scholarships. Complete information concerning these programs and necessary applications for scholarships and grants is available through the office of Student Financial Assistance.

**CCC does not offer any federal loan programs (Federal Direct, Federal Perkins, Federal Stafford Loans, Parent PLUS).**

### General Eligibility Requirements for Federal Financial Aid

To be eligible for federal financial assistance, a student must:

1. Have a high school diploma or its equivalent (GED). A copy of the diploma must be on file with Admissions and Records.
2. Be enrolled in and pursuing a degree or certificate program. Transfer students must have official academic transcripts on file and evaluated with Admissions and Records. Financial aid will not be awarded until this is completed.
3. Demonstrate financial need. Need is the difference between the cost of education and what the parent(s) and/or student are expected to contribute.
4. Be making satisfactory academic progress. For more information, see the Satisfactory Academic Progress policy.
5. Meet one of the following citizenship requirements:
  - ◆ U.S. citizen
  - ◆ U.S. national
  - ◆ U.S. permanent resident who has an Alien Registration Receipt Card (I-151 or I-551)
  - ◆ If you are not in one of the above categories, you must have one of the following documents from the U.S. Immigration and Naturalization Service:
    - ◆ An I-94 with one of the following endorsements: "refugee," "asylum granted," "indefinite or humanitarian parole," or "Cuban-Haitian entrant."
    - ◆ A temporary residency card (I-668).
  - ◆ Students from the Marshall Islands, the Republic of Palau, and the Federated States of Micronesia should consult with Financial Aid Services concerning their eligibility for federal student aid.
  - ◆ Students attending school only on an F1 or F2 student visa, a J1 or J2 exchange visitor visa or a G series visa are not eligible for federal financial aid.
6. Have a social security number.
7. Be registered with Selective Service, if required.

### Financial Aid Application Process

Federal regulations require the submission of a number of documents by students applying for financial aid. In most instances, the documents listed below will constitute a complete file; however, any additional documentation requested by Financial Aid Services must be submitted before a file will be considered complete.



### A Free Application for Federal Student Aid (FAFSA)

This no-cost need-analysis form provides the information necessary for any federal financial aid award.

There are four different ways to complete this form. Choose one of the following ways to complete the form:

#### 1. *Electronic Application Process*

Schedule an appointment with Financial Aid Services. Before your appointment, you need to obtain a FAFSA, a Verification Worksheet, and a Post-secondary History form. At your appointment, you will need to provide the following documents:

- a. Signed and completed FAFSA.
- b. Signed copies of the previous year's federal tax return for you, your parent(s), and/or your spouse, if applicable.
- c. Copies of previous year's W-2's for you, your parent(s), and/or your spouse, if applicable.
- d. Signed Verification Worksheet.

#### 2. *Paper Application Process*

Obtain a FAFSA, complete, and mail to the Federal Processor. CCC's institutional ID number is 031004. This process can take as long as six to eight weeks and possibly longer if information changes during the process. The information provided on the FAFSA is sent to CCC electronically; if requested, you will receive the results at approximately the same time. If required additional documents will be requested by Financial Aid Services when the electronic data is received.

#### 3. *Renewal Application*

If you applied for federal financial aid in the previous academic year, you will receive a Renewal Application in the mail. Update the Renewal Application with current financial information and mail to the Federal Processor. This process can take as long as the Paper Application Process. The information provided on the Renewal Application is sent to CCC electronically; you will receive the results at approximately the same time. Additional documents may be requested from you by Financial Aid Services when the electronic data is received.

#### 4. *Internet Application Process*

You may complete the FAFSA on the Web at [www.fafsa.ed.gov](http://www.fafsa.ed.gov). You will need a computer that has access to the internet and that is attached to a printer. For additional information or technical assistance about the FAFSA on the web, contact FAFSA's customer service at 1-800-801-0576.

In addition to completing the FAFSA in 1 of the 4 ways mentioned above, all students will need to submit the following documents to Financial Aid Services to have a complete file:

#### 1. *Statement of Educational Purpose*

This form is available from Financial Aid Services. It is a statement that all aid applicants must sign, affirming that the student:

- ♦ will use his/her financial assistance for educational purposes;
- ♦ is not in default on any Title IV loan or owes a refund on any Title IV grant; and
- ♦ authorizes the College to use his/her Federal Pell Grant and any other financial assistance to pay tuition and fees and any other College charges.

#### 2. *Post-secondary History Form*

This form requests the student to list all post secondary schools previously attended.

### Verification

If the student is selected for Verification by the Federal Processor or files electronically, the student will be required to submit the following in addition to the documents listed above:

- ♦ Verification Worksheet with required signatures (if student is dependent, one parent signature is required; student signature is required)
- ♦ Copies of signed federal tax returns of the student, and if the student is dependent, the parents' copies of W-2's
- ♦ Other documents requested by Financial Aid Services to resolve conflicting or questionable information

### Financial Aid Student Rights and Responsibilities

The student has a right to:

- ♦ Know which financial aid programs are available at the College.
- ♦ Know the deadlines for submitting applications for each of the programs available.
- ♦ Know how financial need is determined. This includes cost for tuition, room and board, travel, books and supplies, and personal and miscellaneous expenses considered in your budget.
- ♦ Know how the refund and repayment policies of the College work.
- ♦ Know how Financial Aid Services monitors satisfactory academic progress and the consequences of failing to maintain satisfactory academic progress.



### Student Responsibilities

The student has the responsibility to:

- ◆ Keep his/her address current with Admissions and Records and Financial Aid Services.
- ◆ Complete all applications accurately and submit them on time to the right place.
- ◆ Provide correct information. In most instances, misreporting information on financial aid application forms is a felony offense under federal law.
- ◆ Submit all additional documentation, verification, corrections, and information requested by the College.
- ◆ Read, understand, and keep a copy of all forms that the student signs.
- ◆ Accept responsibility for all agreements that the student signs.
- ◆ Make satisfactory academic progress toward a degree.
- ◆ Notify Financial Aid Services of any changes in his/her financial situation, the number of family members attending college, or household size.

### Satisfactory Progress Policy for Financial Aid Recipients

It is the student's responsibility to meet and maintain satisfactory progress while earning a degree or certificate. This policy applies to students receiving federal and state financial aid and should not be confused with the College's Academic Progress policy. The Satisfactory Progress policy includes three elements:

1. Minimum grade point average (GPA);
2. Maximum number of credit hours after which a degree/certificate must be granted;
3. Minimum number of credit hours completed per semester or academic year.

These 3 standards measure both qualitative and quantitative progress. Students will be ineligible for federal and state financial aid if these standards are not met. Student progress will be reviewed each semester to determine eligibility for federal and state financial aid for the upcoming semester/academic year and/or summer session. The academic year begins with Fall semester and continues through Spring. Students who have completed a sufficient number of credit hours within the academic year are eligible to receive federal and state financial aid for the summer session. Students who have not completed the required number of credit hours for which they were funded will be placed on probation for the next semester. Students who receive Title IV funds on a

probationary basis must meet the stated probation requirements or their eligibility will be suspended.

### Qualitative Standards

Students receiving Title IV funds must maintain a cumulative grade point average of 2.00 or higher.

### Foundation Courses

A maximum of 30 credit hours of foundation classes may be counted towards a student's "Minimum Credit Hour per Academic Year" requirement; however, the credit hours for foundation classes will not be charged against the total maximum credit hours allowed. The exact number of allowable foundation credit hours will be determined by the student's academic skill assessment results.

### Continuance of Eligibility

Student records are reviewed at the end of each semester for compliance with the three Satisfactory Progress elements: minimum cumulative GPA, maximum number of credit hours earned, and minimum number of credit hours completed per academic year. Students who meet all three of these standards are eligible for further federal and state financial aid consideration for the following academic year. Students receiving Title IV funds who have 40 or more credit hours (both transfer and CCC) will be required to submit a Student Education Plan (SEP), prepared with the help of an academic advisor, to Financial Aid Services. The student will receive funding for only those courses required to complete degree requirements and as outlined in the SEP.

### Quantitative Standards

#### Maximum Number of Credit Hours

The maximum time frame for completion of a degree or certificate is measured by the total number of credit hours a student earns. This includes transfer hours and all semesters of enrollment (including summer session) and applies to each degree or certificate pursued whether or not financial aid was received. Once the maximum number of hours is completed, the federal financial aid eligibility ends.

Program	Maximum credit hours
Intermediate Certificate (1-24)	30 credit hours
Advanced Certificate (1-45)	48 credit hours
Associate of Arts (60-65)	80 credit hours
Associate of Applied Science (60-65)	80 credit hours
Associate of Science (60-65)	80 credit hours
Associate of General Studies (60)	80 credit hours

### Minimum Number of Credit Hours per Academic Year

Students receiving Title IV funds are expected to complete at least 80% of the semester credit hours enrolled as outlined in the following chart:

Credit hours load	80% Minimum completion each semester
Full time based on 12 credit hours	10 credit hours
3/4 time based on 9 credit hours	7 credit hours
1/2 time based on 6 credit hours	5 credit hours

Students enrolled for five or fewer hours must complete the number of hours funded (i.e., if a student is funded for one credit hour, the student must complete the one credit hour).

The following grades do not count toward the "Minimum Credit Hours per Academic Year" requirement: W, I, AU, U, and NCR. Repeated courses and "IP" grades will be treated in accordance with established College policy.

### Failure to Maintain Satisfactory Progress

- ◆ Students who fail to meet the minimum cumulative GPA must use their own financial resources (unless an appeal is approved for a probationary semester) and attend one semester or summer session earning at least six credit hours at CCC to raise their cumulative GPA. *Transfer grades are not calculated into the GPA.*
- ◆ Students who fail to complete the required minimum number of credit hours for which they were funded will be placed on probation the following semester.
- ◆ Students who have exceeded the established maximum credit hours will be required to submit an appeal and have eligibility status determined on an individual basis. Until a determination is made on the appeal, the student will be ineligible to receive federal financial aid funds.
- ◆ Students who have been placed on financial aid probation must meet the conditions of the appeal or attain academic good standing by the end of the semester or eligibility will be suspended. Suspended students will not be eligible to receive funds until such time as academic good standing is attained. Students in this category will be required to appeal in order to be reevaluated to have eligibility reinstated.
- ◆ Students who are placed on academic probation will automatically be placed on financial aid probation.

- ◆ Students who are placed on academic suspension will automatically be placed on financial aid suspension.

### Right to Appeal

In order to receive funds during the probationary period, students must submit a Satisfactory Academic Progress Appeal Form with supporting documentation to Financial Aid Services. Satisfactory progress appeals may fall into one of three categories:

#### 1. Withdrawals/Waiver of a Semester

Students who have not completed the necessary number of credit hours for federal funding because the student withdrew from the semester may appeal to have the semester waived under circumstances such as illness, death in the family, serious personal problems, etc. The following supporting documentation is required: letter from attending physician, counselor, medicine man/woman, hand trembler/shakers, etc., addressing the specific problem, dates student was unable to attend school, and a comment on their current condition and ability to complete course work in the future.

#### 2. Probation Extension (one semester only)

Students who have failed to earn the minimum number of credit hours during a probationary semester for which the student was funded may appeal to receive federal funding for the following semester if extenuating circumstances have prevented completion of the minimum number of credit hours. The following supporting documentation is required: letter from attending physician, counselor, medicine man/woman, hand trembler/shakers, etc., addressing the specific problem, dates student was unable to attend school, and a comment on the student's current condition and ability to complete course work in the future.

#### 3. Maximum Credit Hour Extension

Students may appeal for an extension of the maximum hour limit if extenuating circumstances have prevented completion of a degree in a timely fashion: transfer hours that did not apply to their CCC major, change in major, dual major, extenuating circumstances have interfered with the completion of course work, etc. The following supporting documentation is required: letter from advisor supporting student's circumstance and Student Education Plan (SEP). Students must provide Financial Aid Services with a copy of the proposed schedule of classes each subsequent

semester before their financial aid will be processed. Students will receive funding only for those classes listed on the SEP.

Appeals that fall outside the scope of these three categories will be evaluated on an individual basis by the Director for Financial Assistance.

Students who have conditions set forth in the appeal approval and do not meet these conditions will be suspended from financial aid and must complete a minimum of half-time status using their own resources to regain eligibility or may submit a new appeal.

### **Satisfactory Academic Progress (SAP) Appeals Committee**

A student may appeal the decision of the Director for Financial Assistance by submitting a written request to have his/her appeal forwarded to the SAP Appeals Committee. The composition of the SAP Appeals Committee will be the following: Registrar/Director for Admissions, one Advisor, one Faculty, and one Student Services representative; the Director for Financial Assistance will serve in an ex-officio capacity. In this written request, the student must attach any additional documentation to support his/her appeal. Financial Aid Services staff will schedule a SAP Appeals Committee meeting to review any appeals submitted. The student will have the option of being in attendance and will be scheduled for a specific time if he/she chooses to be in attendance. The Committee may either uphold, reverse, or modify the decision of the Director for Financial Assistance. The decision of the Committee will be final, and Financial Aid Services will notify the student in writing within ten days of the Committee's decision.

### **Effects of Consortium Credits on Satisfactory Progress**

If a student has a consortium agreement between CCC and another institution in which CCC is the parent institution, credits earned at the non-parent institution will count as though they were earned at CCC and will count towards Satisfactory Academic Progress requirements.

## Veterans' Services

### **Veterans' Educational Benefits**

Coconino Community College is approved to train students under government educational programs for veterans and eligible dependents of deceased or disabled veterans. Eligible students and those who wish to determine their future eligibility should apply through Financial Aid Services.

It is recommended for Veterans making an initial application for their benefits to submit a certified copy of their DD 214 (member four copy). Eligible dependents making an initial application under Chapter 35 must provide their parent's or spouses VA claim number.

Students planning to attend the College under the VA vocational rehabilitation program should contact their vocational rehabilitation specialists before registration. This contact may be made through Financial Aid Services. Additional services to be offered by Financial Aid Services include application for all VA benefits, professional educational counseling, tutorial assistance, and referral services.

### **Veterans' Admission**

By Arizona statute, no failing grades received by a veteran at an Arizona university or community college prior to military service may be considered when determining admissibility. This exception applies only to veterans who were honorably discharged, have served in the U.S. Armed Forces for a minimum of two years, and have previously enrolled at a university or community college in Arizona.

All veterans must declare a major and list their educational goal as degree/certificate (DC) or degree to transfer out (DT). They must also submit Official Academic Transcripts from all previous schools attended by the end of their first semester of attendance. They must also request those transcripts to be evaluated by Admission and Records.

Proper advising and course planning are strongly encouraged. Veterans and their dependents are not allowed to enroll in course repeats, course audits, or independent study courses without prior approval by Financial Aid Services.

Students admitted or readmitted to the College under this statute are subject to academic standards, graduation, and other academic regulations in this catalog.

### **Veterans' Retention**

All veterans and dependents of veterans must successfully complete 60% of their course work with the individual grades and cumulative grade point average required by the College to continue toward graduation. If less than 60% of the course work is completed, or if the grade point average falls below that required by the academic probation, suspension, or dismissal policy, veterans or veterans' dependents will be placed on probation the following semester. If individual grades and the cumulative grade point average are not maintained

during that semester, the veteran or veterans' dependents will be suspended or terminated from their educational allowances effective the ending date of the semester, and notice will be sent to the VA regional office within thirty days following.

When the progress or status of a veteran is changed, a notice will be sent by the College to the VA regional office, within thirty days following the date of the change or the last day of attendance.

### **Attendance**

Veterans and veterans' dependents are paid to attend and complete course work. Attendance records are maintained by all faculty. If at any time Financial Aid Services is notified that a veteran's attendance is inconsistent with College standards, benefits may be reduced accordingly and the VA regional office notified. In some cases, the veteran may be dropped for nonattendance. *See Academic Procedures for more information.*









# Academic Procedures



## Attendance

Because attendance is essential to academic success, CCC students are expected to attend regularly and punctually all classes in which they are enrolled. Attendance requirements must be published in the course syllabus distributed to students.

### First Class Session Requirement:

- *All students are required to attend the first class session of each course in which they are enrolled.*
- *Failure to attend the first class session or to notify the instructor prior to the class session of an inability to attend may result in the student being dropped from the class by the instructor.*

### Absences:

- ◆ Instructors may drop a student whose unexcused absences exceed the equivalent of one week of class of a regular full semester.
- ◆ Instructors should drop a student whose unexcused absences exceed the equivalent of two weeks of class of a regular full semester.
- ◆ Instructors must drop a student whose unexcused absences exceed the equivalent of three weeks of class of a regular full semester.
- ◆ Absences will be counted regardless of when they occur during the semester or session, when the absences take place before the deadline for student-initiated withdrawal.
- ◆ Instructors may grant excused absences at their discretion.

### Lateness:

At the instructor's option, late arrivals, or tardiness, may accumulate as unexcused absences with each tardy counting not more than one class hour.

### Other:

- ◆ Instructors may establish a more stringent attendance policy.
- ◆ Instructors are under no obligation to make special arrangements for students who have missed class assignments due to unexcused absences.
- ◆ Students are responsible for notifying their instructors in advance of any planned absences and for completing all class assignments as required.
- ◆ Instructors have the discretion to excuse absences for illness, optional activities related to other classes, or personal emergencies.
- ◆ Absences due to the student representing the College in some official capacity or due to participation in a required field trip in another class will be excused upon presentation of verifying evidence by an authorized college official.

## Grade of Withdrawal

### Regular Semester:

After the midpoint of the instructional period, instructors may drop a student for excessive absences with a "W" grade (withdrawal). Students may drop a class until the deadline published in the appropriate academic calendar and in the *Schedule of Classes*. After the deadline, students who prefer to be dropped with a "W" grade (withdrawal) rather than receiving the grade earned must request this from the instructor. Otherwise, they may receive a grade of "F" for the course. No student may drop a class during the last two weeks of a regular full semester.

### Short Course:

If a short course is dropped once the class has begun, a "W" grade (withdrawal) will be recorded on the student transcript. Written petitions for exception to procedure may be presented to the Registrar/Director for Admissions or designee for action.

### Absences after Student-Initiated Withdrawal:

If an absence, which would otherwise result in a student being dropped, occurs after the deadline for student-initiated withdrawal, faculty may either drop the student by indicating a "W" grade (withdrawal) on the grade roster or retain him/her on the class roster and award the grade warranted by the student's performance. All drops must conform to established college policy.

## Audit

A student wishing exposure to a class may elect to audit the course. The decision to audit, or to change from an audit to A-F (letter grade) or S/U status, must be made no later than the last day to add classes (as published in the *Schedule of Classes*). Regular attendance at all class meetings is the responsibility of the student, but writing assignments and examinations are not mandatory. Courses audited carry no credit toward the grade point average, toward graduation, or toward meeting professional requirements. An audited course will not satisfy the prerequisite for a course in which the student wants a letter grade. Audited credit hours do not count toward determining eligibility for Financial Aid purposes. Audited classes 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.

## Class Cancellation Due To Inclement Weather

Should CCC need to cancel classes due to inclement weather, the media will be so informed. Please listen to local radio and television stations for announcements. If the public schools cancel classes due to inclement weather, CCC classes held at those schools will not meet. If CCC cancels classes and NAU does not, CCC classes scheduled to meet at NAU will meet as scheduled. The cancellation of CCC classes will only affect those areas receiving the inclement weather, and areas affected will be identified in the media announcements.

## Class Orientation

At the beginning of each credit course, instructors will give each student a written course syllabus which includes attendance requirements, an assignment schedule, a formal evaluation plan, a semester calendar, grading criteria for the course, and other pertinent information. A formal evaluation plan may not be required in a credit-free course.

## Course Prerequisites

Prerequisites are listed below the class in the *Schedule of Classes*, as well as in the Course Descriptions in this catalog. A prerequisite may be an appropriate placement test score, a class or classes which precede the class in question, skills, or consent of instructor. A course taken to satisfy a prerequisite must be completed with a grade of "C" or better. A student will not be allowed to enroll in a course which requires a prerequisite unless he/she has presented evidence of having satisfied that prerequisite. Evidence includes CCC mathematics or English placement test scores, appropriate ACT/SAT scores, a copy of transcripts or a grade report showing completion of an appropriate prerequisite course, or consent of instructor. Students seeking to prove prerequisites with evidence such as transcripts, grade reports, or score reports, must submit their evidence in person or with their mail-in registration. An audited course will not satisfy the prerequisite for a course in which the student wants a letter grade. The College reserves the right to require official transcripts or other documents if the evidence presented by the student does not clearly prove that course prerequisites have been met. Students who completed prerequisite classes or tests more than five years prior to the semester in which prerequisite proof is required must take CCC mathematics and English placement tests.

## Final Examinations

Final examinations or suitable evaluations are required in all credit classes. Under no circumstances should a student make employment, travel or personal plans which conflict with examination periods. In extenuating circumstances, a student may be excused from a final examination or take a final examination at an unscheduled time with written permission from the instructor.

## Grading

The Coconino Community College grading system is as follows:

Letters	Grades	Grade Points/Credit Hour
A	Excellent	4
B	Good	3
C	Average	2
D	Unsatisfactory	1
F	Failure	0
I	Incomplete	Not computed in GPA
W	Withdrawal	Not computed in GPA
Au	Audit (no credit)	Not computed in GPA
S <sup>1</sup>	Satisfactory	Not computed in GPA
U <sup>1</sup>	Unsatisfactory	Not computed in GPA
IP <sup>1</sup>	In Progress Grade	Not computed in GPA

<sup>1</sup> These grades are used for approved courses only.

## To calculate your GPA:

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

## Example

Course#	Course Title	Grade	Credit	Grade Points/Letter	Total Grade Points
ENG 101	College Composition I	A	3	x4	12
FRE 101	Beginning French I	B	4	x3	12
Total			7 cr.		24 grade points

Your GPA = Grade Points / Credits = 24/7 = 3.4 GPA

## Grade Appeals and Other Course Requirement Decisions

Students may appeal a grade or other decision pertinent to completion of course requirements through administrative procedures. These procedures will be determined by the College President after consultation with faculty and administrators. Students may appeal a grade or other decision affecting completion of course requirements as follows:





- ◆ Students must represent themselves in the appeal process, i.e. third parties will not be permitted to represent students.
- ◆ Potential intervention by third parties or examination of educational records is subject to interpretation by the Family Educational Rights and Privacy Act of 1974 as amended. Questions or clarification regarding educational records should be directed to Admissions and Records.
- ◆ Students must first appeal through informal procedures before initiating formal procedures. Formal procedures may be initiated only for final course grades.

#### Timelines for Appeal

Students who fail to initiate an appeal within the timelines defined below forfeit their right to appeal:

- ◆ Non-final grades and other decisions within twenty business days from the date the grade was assigned or other decision made, or twenty business days from the date the student learned of the assigned grade or decision.
- ◆ Final course grades within six months following course completion.

#### Methods for Appeal

Appeal customarily begins (and often ends) with a discussion between the student and the instructor, leading to a mutually satisfactory understanding. If such understanding is not reached, or in the event the instructor and the student are unable to meet to discuss the reason(s) for the appeal, the student may then appeal to the responsible Extension Site Coordinator, Division Chair or appropriate Dean.

The Extension Site Coordinator, Division Chair, or appropriate Dean will review the student's appeal and decide whether the grade or other decision will stand or be altered. The investigation may include a conference of involved persons, such as the faculty member, faculty peer(s), the student, Department and Division Chair, campus Dean, and others who may provide relevant information. The decision must be communicated to the student and the instructor, verbally or in writing, within twenty business days of the appeal.

#### Formal Procedures

If the student is dissatisfied with the decision, he/she may further appeal to the Vice President for Academic Affairs. Such appeal must be made *in writing* within twenty business days of the date the supervisor notified the student of the decision and must describe the following:

- ◆ The nature of the appeal, specifying the grade, relevant conditions about the issue, and any descriptive evidence of major significance.
- ◆ The reasons for the appeal, including any evidence which supports the student's belief that the grade was unfairly or incorrectly assigned, unsubstantiated by evidence, inaccurate, or otherwise unreasonable.
- ◆ A solution acceptable to the student.

The Vice President for Academic Affairs will conduct a review of the formal appeal as presented by the student. The nature and activities of the review will be determined by the Vice President for Academic Affairs. The review must be completed within twenty business days of the date the Vice President for Academic Affairs received the student's written appeal.

After the review, the Vice President for Academic Affairs will render a decision which may confirm or alter the final course grade. The decision of the Vice President for Academic Affairs is considered final.

If the instructor is unable to participate in the appeals process, the Vice President for Academic Affairs in conjunction with the instructor's supervisor, has the authority to alter the final course grade if evidence substantiates the change.

#### Incomplete Grades

A grade of "I" may be requested by a student only at the end of a semester in which the student has done the following:

- ◆ Averaged a grade of "C" or better in at least 80% of the work required for the course
- ◆ Presented a case documenting circumstances which prevent completion of the course requirements by the end of that semester
- ◆ Entered into the Contract for Incomplete Grade with the instructor

All contracts must be reviewed and approved by the Extension Site Coordinator, Division Chair, or appropriate Dean. It is the exclusive responsibility of the student receiving a grade of "I" to contact the instructor and complete the course. A Contract for Incomplete Grade will not exceed one semester following its approval. "I" grades issued during a summer session must be completed by the end of the following Fall semester. Upon completion of course work outlined in the contract, the instructor will initiate a Change of Grade form. If the instructor is no longer available, the student should contact the



Extension Site Coordinator, Division Chair, or appropriate Dean. If the work required is not completed the semester following the approval of the contract, the grade specified on the contract will be posted to the student's permanent record.

### **In-Progress Grade**

In cases where circumstances warrant, the instructor may assign an "IP" grade. An "IP" grade is not to be used in place of an "I" grade. The "IP" grade is used where it is known at the time of registration that class completion will require work in excess of a single semester or session. A written "IP" Grade Contract should be completed by the instructor and the student. The contract must have definite starting and ending times. The "IP" Contract must be approved in advance by the Extension Site Coordinator, Division Chair, or appropriate Dean. Once the contract is successfully completed, the "IP" grade will be changed to a letter grade assigned by the supervising faculty.

### **Continuing Education Units**

Continuing Education Units (CEU's) may be awarded for participation in individual and professional development courses, workshops and seminars. One CEU typically represents ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction as approved by the Vice President for Academic Affairs. CEU's provide students with a standard of measurement to quantify their education experience. CEU's also provide recognition of one's efforts to broaden his or her knowledge, skills and experiences by establishing a permanent record of educational history.

### **Repeating Courses**

Credit courses at CCC will only be counted once toward fulfilling the credit requirements for any degree or certificate.

#### *Students may repeat up to four times:*

- ◆ Courses for credit in the case of music and dance performance, art studio, physical health and wellness, creative writing, and developmental courses needed to raise skill levels necessary for success in college-level work

#### *Students may repeat a course as necessary:*

- ◆ in order to acquire certification
- ◆ in order to update knowledge and/or skills due to periodic content changes (e.g. Tax Preparation)
- ◆ for retraining in or upgrading of job related skills

#### *Students may repeat, but not receive duplicate credit for:*

- ◆ a course one time in order to improve a grade of C or better
- ◆ a course two times for which the previous grade(s) received was "F," "D," or "U"

Only the higher or most recent of the repeated course grade(s) will be used in computing the grade point average. All grades will be posted on the permanent record and transcript. A student may be allowed to repeat a course beyond the limit with recommendation from the appropriate Extension Site Coordinator, Division Chair, or appropriate Dean, and approval of the Vice President for Academic Affairs.

### **Repeating In Violation of Policy**

A student found to be repeating a course in violation of this policy will have registration for the course canceled, without refund of tuition and fees. Such cancellation may occur at the time of registration or whenever a college official becomes aware of the violation.

### **Satisfactory/Unsatisfactory Grades**

If a course description in the *College Catalog* indicates a course may be taken for an "S/U" grade, the student may elect the S/U option. This must be done in writing, with the consent of the instructor, no later than the deadline to add classes as published in the appropriate *Schedule of Classes*. The deadline to add classes is also the deadline to change from an S/U to A-F or Audit status. Students electing the S/U option should be aware that:

- ◆ Once awarded, the "S" or "U" grade may not be changed to a letter grade.
- ◆ The "S" grade is equivalent to a grade of "C" or better; however, neither the "S" nor the "U" grade is calculated in the grade point average.
- ◆ The "S" grade may carry credit toward graduation or toward meeting professional requirements.
- ◆ The "S" grade shows on the transcripts as credit hours earned for the semester and will be used toward meeting the credit hours

required of a full-time student and toward determining Financial Aid eligibility.

- ◆ The "U" grade shows on the transcript but not as credits earned for the semester; therefore, the "U" grade does not count toward meeting the hours required of a full-time student or toward determining Financial Aid eligibility.
- ◆ Courses taken for S/U credit for which a grade of "S" is earned will satisfy prerequisites.

## Special Topics Course – 298

### Basic Guidelines

Special Topics courses are intended to:

1. Allow students opportunities for academic learning beyond what the College provides in its regular curriculum.
2. Allow students to design a special academic course to meet a special need that the College does not otherwise meet. Usually this study will be more advanced or specialized than the regular 2-year college curriculum, and can be taken only after a student has completed the introductory courses in the discipline of interest.

Special Topics courses are *not* intended for:

1. Transfer to a university, 4-year, or 2-year college.
2. Credit for prior experience or learning.
3. Developmental studies or non-college credit activities.
4. Cooperative job placements, work study, internships or similar activities if the course activity is part of routine job responsibilities and the work is not directly supervised by a faculty member.
5. Individualized study of a course in the college catalog. Special Topics courses are studies outside our catalog offering. (Independent Study allows students in special cases to take a course from our college catalog individually.)

### Rules/limits/deadlines

1. A student may register for up to 6 credit hours of Special Topics courses each semester or summer session.
2. A limited number of credits earned in Special Topics courses may count toward meeting graduation requirements. *See Graduation Procedures for more information.*

### Enrolling in a Special Topics Course

To enroll in a Special Topics course, the student must:

1. Decide on a Special Topic.
2. See an Advisor.
3. Complete a proposal for Special Topics courses. *See Student Proposal Guidelines for more information.*
4. Identify a faculty member who has knowledge/expertise in the area to be studied. The student must complete the contract form and send it with the faculty signature, along with the proposal, to the Division Chair or appropriate Dean for approval.

### Student Proposal Guidelines

The proposal provided to faculty members should include a detailed description of the project and the following information:

1. Area of subject the student intends to study.
2. Method of study the student proposes to use.
3. Explanation of why the student is interested in proposing this course.
4. Description of the course objectives (e.g. What does the student hope to learn by taking this course?)
5. Time-line for the completion of the course.

### Withdrawal from Class

The terms "withdrawal" and "drop" refer to actions which terminate the student's class enrollment. If a drop occurs prior to, or on, the 45th calendar day of a regular full semester, no record will appear on the student's transcript. However, a student who drops a class on the 46th calendar day of a regular full semester or later will be assigned a "W" (withdrawal) on the student transcript. A student may also be dropped (assigned a "W") by the instructor for nonattendance.

If a short course is dropped once the class has begun, a "W" (withdrawal) will be recorded on the student transcript. Written petitions for exception to this procedure may be presented to the Registrar/Director for Admissions or designee for action.

A student who withdraws or is withdrawn from all classes is required to process the withdrawal through Financial Aid Services and Admissions and Records.



# Student Rights & Responsibilities

All students at Coconino Community College are considered to be responsible adults. Therefore, they are accountable for their own personal behavior. The College expects all students to obey local, state, and federal laws and conform to the College's standards of conduct. For more information on student complaint procedures and student rights and responsibilities, read the Student Code of Conduct.

Students enrolled at Coconino Community College are responsible for abiding by the laws governing the College and are expected to observe standards of conduct set by the College. The College receives its authority to set conduct standards under the policies of the State Board of Directors for Community Colleges of Arizona. These policies in turn are guided by laws enacted by the Arizona State Legislature.

Administrative procedures relating to student conduct, disciplinary action, and involuntary withdrawal will be determined by the President in consultation with appropriate administrative staff, faculty and students. Procedures will be followed to ensure due process should a student violate a college rule or regulation not directly involving academic performance and achievement. The College President is expressly authorized to enforce the rules set forth under the Code.

## Assuming Self-Responsibility

Self-responsibility entails respect for student rights, eliminating blame, acknowledging mistakes, working toward constructive change, and challenging injustice and unethical acts of others. As a member of the campus community, students are expected to be responsible for themselves, to assist others in accepting their responsibilities, and to help make the college community a better place.

## Statement of Commitment to Students

The mission of Coconino Community College is to promote student success through comprehensive learning opportunities for its community.

## Student Code of Conduct

Coconino Community College offers its students the opportunity to learn in an environment where individual rights are respected. As in any group situation, respect for individual rights is best achieved when each group member acts in ways that are reasonable and responsible. Conduct is expected to be consistent with the learning environment and is subject to standards set by the College. The Student Code of Conduct is designed for the promotion and protection of such an environment at the College and to balance the rights and needs of the individual with the responsibility of the individual to the college community.

Listed below are the conducts which may lead to college disciplinary actions or possible dismissal:

1. Conviction of a crime or continued misconduct of any type that is an infraction of the established laws of the city, county, state or nation.
2. Possession, use, solicitation, or distribution of intoxicating liquors, narcotics, controlled substances or illegal drugs on college-owned or controlled property.
3. Theft or conversion of college-owned or personal property, possession of stolen property, or unauthorized entry into college-owned or controlled property.
4. Malicious destruction of college or personal property.
5. Endangering or threatening the life or physical safety of others or self, including detention or physical abuse of any person.
6. Failure to meet financial obligations to the College.
7. Falsification, misuse, or forgery of college records or documents including the Student ID card.
8. Knowingly furnishing false or incomplete information to the College or to a college representative or official in response to an authorized request including a legitimate request by an identified college official that a person identify him/herself.





9. Possession or use of firearms, explosives, dangerous chemicals, or other dangerous weapons or instruments on college-owned or controlled property except as expressly authorized by the law or by institutional regulation.
10. Behavior which interferes with the orderly functioning of the College, interferes with an individual's pursuit of an education, or disrupts the learning environment on college-owned or controlled property or during an authorized college class, field trip, seminar, or other meeting, or college-related activity on or off college property.

To obtain a copy of the full text of the Student Code of Conduct, contact the Dean for Student Services or go to the College's Web site at [www.coco.cc.az.us](http://www.coco.cc.az.us).



# Academic Standards



### 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 are violations of the College's Student Code of Conduct. The general descriptions below emphasize those boundaries of academic conduct which are essential to the learning environment. The following acts of academic dishonesty are among those which may lead to College disciplinary action or possible dismissal:

#### Plagiarism

Plagiarism is defined as submitting assignments, examinations, or other academic work which is not entirely the work of the student. This can include, but is not limited to, such practices as: quoting without giving proper credit to a source, expanding someone else's work without giving proper credit, adopting as one's own an actual document (including the copying of computer or other electronic media), directly using someone else's ideas rather than words without giving proper credit.

#### Cheating

Cheating is defined as submitting assignments, examinations, or other work which is based upon sources or activities forbidden by the instructor. Cheating includes the furnishing of materials to another person for purposes of aiding that person to cheat. When an unfair academic advantage is gained by a person through deception or other means, that action is defined as cheating.

#### Violation of Copyright

The unauthorized copying of copyrighted material, whether print or computer media, is unacceptable and is considered an act of academic dishonesty. Moreover, such practice is illegal and makes the violator subject to legal penalty.

#### Penalties

The following penalties may be applied in instances of academic dishonesty:

- ◆ A student caught in an act of academic dishonesty on an assignment may or will, at the discretion of the instructor, be assigned a grade of "F" for that assignment or for the entire course, regardless of the length of time the student has been in attendance.
- ◆ A student found to have committed an act of academic dishonesty may be dismissed from CCC. The length or time period of the dismissal will depend upon the nature of the offense and may be permanent.

### Academic Progress

#### Notification

Students affected by the procedures in this section will be notified of academic probation and/or suspension on the semester grade reports which are sent to the student's last known address.

Students receiving financial aid are subject to Satisfactory Academic Procedures. For more information, see *Satisfactory Progress Policy for Financial Aid Recipients*.

#### Probation

A student will be placed on academic probation if the cumulative grade point average is less than 2.00.

Students should be aware that graduation requires a minimum grade point average of 2.00.

Students on academic probation may not take more than 12 credit hours per Fall or Spring semester (4 credit hours per summer session). Advisor approval is required prior to registration. A student placed on probation status has two regular (Fall and Spring) semesters to raise the cumulative grade point average to 2.00. If the minimum cumulative grade point average is not met at the end of two semesters, the student is placed on academic suspension.

#### Suspension

A student on academic probation for two regular (Fall and Spring) semesters who fails to raise the cumulative grade point average to the required minimum will be placed on academic suspension and barred from registration for the period of one regular (Fall and Spring) semester.

#### Re-Admission

An academically suspended student may apply for re-admission by submitting a petition for re-admission at least one month prior to the beginning of the semester or summer session for which the student seeks enrollment. The petition will be reviewed by the Registrar/ Director for Admissions or designee.

The Registrar/Director for Admissions or designee may elect to approve the petition as submitted, to approve the petition with conditions (e.g. limited course work, specific classes allowed, other classes denied, fresh start, etc.), to uphold suspension, or to take other action which is deemed in the best interest of the student. Re-admission may



include a change in major, removal of grades, adjustment of cumulative grade point average, etc. If the student is readmitted, he/she will automatically be placed on academic probation.

### Appeals

Students who desire to appeal a probation, suspension, or denial of re-admission decision must submit a letter detailing the basis of the appeal to the Registrar/Director for Admissions. The Student Appeals Committee will review the student's case and make a recommendation for action. The Registrar/Director for Admissions will communicate this decision to the student, who may appeal the Committee's recommendation to the Vice President for Academic Affairs or designee. The Vice President's decision is final.

## Graduation Procedures

### Application for Graduation

Students who believe they will be eligible to graduate with a CCC degree or certificate at the close of Fall semester must consult their Academic Advisor and submit an application for graduation no later than the first Monday of October. Summer and Spring semester applications for graduation must be completed no later than the first Monday of February. A choice of catalog must be declared at the time of application. All required documents, including official transcripts, must be submitted to the Admissions and Records Office by the stated deadline for each session. A nonrefundable fee of \$15 for each certificate and \$25 for each degree is required to initiate a graduation check. The graduation application initiates the graduation check procedure, completed by the Admissions and Records Office, to ensure that all requirements are met by the graduation semester.

### College Reading Requirement

Students applying for graduation in an Associate Degree program must have demonstrated successful completion of the College Reading requirement by one of the following:

- ◆ College assessment,
- ◆ Successful completion of English 141–Critical Reading
- or
- ◆ "C" or above in a reading intensive course as identified in the College's General Education Core Curriculum (GECC) and/or Arizona General Education Curriculum (AGEC).

### Commencement Ceremonies

Procedures for participation in commencement ceremonies will be announced the semester prior to the ceremony. Spring commencement will include students who have been awarded

degrees the prior summer and Fall semesters and candidates for Spring degrees. Students requiring 6 or fewer credits to be eligible for graduation and will complete those credits during the summer session following the annual commencement ceremony may apply for graduation and participate in the commencement ceremony. Upon final degree clearance, an official College diploma or certificate will be issued.

### Courses Numbered Below 100

Only students graduating with an Associate of General Studies Degree may count courses numbered below 100 toward graduation. A maximum of 12 credits may be completed in courses numbered below 100.

### Graduation Requirements

The requirements to earn each CCC degree and certificate are detailed in the Degrees and Certificates section. Requirements are also summarized below. Degree and certificate-seeking students are advised to work closely with their academic advisor to ensure that they are making appropriate progress toward fulfilling graduation requirements.

### Minimum CCC Hours

To graduate from CCC, a student must complete a minimum number of credit hours at CCC with a "C" or better.

- ◆ To earn an Associate of Arts, Associate of Business, Associate of Science, Associate of Applied Science, or Associate of General Studies degree, the student must successfully complete at least 15 credit hours of CCC course work applicable to the degree.
- ◆ To earn a certificate, the student must successfully complete at least one-third of the required credit hours in CCC course work applicable to the certificate.

### Minimum Grade Point Average

No student may graduate with a cumulative CCC grade point average of less than 2.00. Students completing a transfer degree (Associate of Arts, Associate of Business, or Associate of Science degree) must complete all courses with a grade of "C" or better.

### S/U Grades

A maximum of 12 credits may be completed with a grade of "S" in applicable associate degree programs. No more than 3 credit hours of "S" may count for the certificate if the program allows.





## Second Degree Policy

Upon completion of an Associate of Arts, Associate of Business, Associate of Science, Associate of Applied Science, or Associate of General Studies degree from CCC, a student who wishes to pursue an additional degree other than Associate of General Studies must meet the following criteria:

- ◆ Students must meet the requirements of that degree as outlined in the Catalog in effect at the time of initial enrollment in the new degree program.
- ◆ Students must complete a minimum of 24 credits beyond those previously earned in the awarded degree.
- ◆ Credits applied to the new degree must have been completed with grades of "C" or better.
- ◆ The Associate of General Studies will not be awarded as a second degree.

## Special Topics Courses – 298

A limited number of credits earned in Special Topics (298) courses may count toward meeting graduation requirements. Students should consult with their academic advisor prior to arranging for special topics courses.

## Waiver or Substitution of Program Requirements

Students may request a substitution of graduation course requirements. Program substitution requests will be evaluated on a case-by-case basis as recommended by the academic advisor or other College officials, and approved by the Division Chair for the Flagstaff Campus or Campus Dean for the Page Campus.

## Graduation with Honors

Students graduating with a degree who complete at least 30 credits at CCC, and whose grades qualify will be granted the following designations:

- ◆ Cum Laude 3.40 to 3.69 Cumulative CCC GPA
- ◆ Magna Cum Laude 3.70 to 3.89 Cumulative CCC GPA
- ◆ Summa Cum Laude 3.90 to 4.00 Cumulative CCC GPA

Students graduating with a certificate who complete at least 15 credits at CCC, and whose grades qualify will be granted the following designations:

- ◆ Honors 3.50 to 3.89 Cumulative CCC GPA
- ◆ High Honors 3.90 to 4.00 Cumulative CCC GPA

These designations will be shown on the student's diploma and on official transcripts.

## Scholastic Honors

Students who complete at least 6 credits during a semester and whose grades qualify will be granted the following designations:

- ◆ Vice Presidents' List 6 or more credits per semester  
3.50 to 3.99 Semester GPA
- ◆ President's List 6 or more credits per semester  
4.00 Semester GPA

## Assessment

Coconino Community College is committed to its mission to promote student success through comprehensive learning opportunities. Assessment is the ongoing process of analyzing and evaluating CCC's functions and activities. Information gathered enables the College to understand its effectiveness and improve its educational offerings and services.

Assessment and institutional effectiveness activities at CCC emphasize feedback on teaching and learning. The information is used to plan and improve instruction, support services, administrative functions, and cultural and community support.

Students and community members at large are asked to participate in assessment activities which may include, but are not limited to, examination, performance assessments, surveys, focus groups, interviews, and follow-up studies. Participation in these activities is appreciated and valued by members of the College community.

## Directory Information

Coconino Community College designates the following items as Directory Information: student name, address, telephone number, date of birth, major field of study, participation in officially recognized activities, dates of attendance, degrees and awards received, most recent previous school attended, and photograph. The College may disclose any of those items without prior consent, unless notified in writing to the contrary prior to or by the first day of classes each semester.



1995/96

College employees

celebrate CCC's

5th Anniversary.

# Directory of College Personnel

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Carol Wilson,  
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Christy Owens,  
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## Facilities Department

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Thomas Snyder,  
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Student Development

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Human Resources Clerk

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Juan Diego, Network Analyst  
Jim Groos,  
Computer Lab Coordinator

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Rick McDonald,  
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Bonnie Young  
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Marketing**

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Liz Gallegos, Assistant Registrar

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Services Coordinator

Rebecca Warfield,  
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John Keegan,  
Business Development Specialist

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Vera Slim,  
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**Coconino Community College  
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American Association of Community Colleges  
American Library Association  
American Payroll Association  
Arizona Academic Administrators' Association  
Arizona Association for Institutional Research  
Arizona Association for Supervision and Curriculum Development  
Arizona Association of Collegiate Registrars and Admissions Officers  
Arizona Association of District Governing Boards  
Arizona Association of Student Financial Aid Administrators  
Arizona Association of Student Personnel Administrators  
Arizona Association of Veterans' Program Administrators  
Arizona Coalition for Human Services  
Arizona Community College Association  
Arizona Community College Presidents' Council  
Arizona High School/College Relations Council  
Arizona Occupational Administrators' Council  
Arizona PostSecondary Access Coalition  
Arizona Society of Certified Public Accounts  
Arizona State Small Business Development Center Network  
Arizona Vocational Association  
Association for Institutional Research  
Association for Women in Psychology  
Association of College and Research Librarians  
Association of Small Business Development Centers  
Association on Higher Education and Disability  
Chambers of Commerce - Flagstaff, Sedona, Page, Williams, Grand Canyon  
Coconino County Private Industry Council  
College and University Personnel Association  
Community College Business Officers  
Community College Institute for Research and Development  
Council of North Central Two-year Colleges  
Flagstaff Alliance for the 21st Century  
Government Finance Officers Association  
Greater Flagstaff Economic Council, Inc.  
Greater Williams Economic Development Council  
International Accounts Payable Association  
Mojave Educational Services Cooperative  
National Academic Advising Association  
National Association of College and University Attorneys  
National Association of College and University Business Officers  
National Association of Colleges Auxiliary Services  
National Association of Educational Buyers  
National Association of Purchasing Managers  
National Association of Student Employment Administrators  
National Association of Student Financial Aid Administrators  
National Association of Student Personnel Administrators  
National Association of Veterans' Program Administrators  
National Council for Occupational Education  
National Institute for Staff & Organizational Development (NISOD)  
North Central Association of Community Colleges and Schools  
Northern Arizona Human Resources Association  
Pacific Association of Collegiate Registrars and Admissions Officers  
Society for College and University Planning  
Society of Human Resource Management  
Western Association of Student Employment Administrators  
Western Association of Student Financial Aid Administrators

# Affiliations





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